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Comments:

Santa Fe Mountains Landscape Resiliency Project

The eternal project of mankind is

to learn what forests have figured out.

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Attached Comment:

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July 17, 2019

Mr. James Melonas, Forest Supervisor USDA Forest Service

Santa Fe National Forest 11 Forest Lane

Santa Fe, New Mexico 87508

submitted to: <https://www.fs.usda.gov/project/?project=55088>

re: Supplemental Comments on Santa Fe Mountains Landscape Resiliency Project Scoping Report

Dear James:

These supplemental comments are in addition to the timely comments below submitted via email on July 10, 2019 to the Santa Fe Mountains Landscape Resiliency Project Scoping Report (SFMLRP). Today's supplemental comments are also timely as they are submitted within the extended comment period which ends July 17, 2019. The references cited in both comments are consolidated at the end.

These supplemental comments concern the National Forest Management Act (NFMA) requirement that any action taken at the project-specific level comply with the national forest's Forest Plan. 16 U.S.C. Sec. 1604(i). Forest Service procedures also require consistency with the Forest Land and Resource Management Plan (FSM 1922.12 and FSH 1909.12).

The Santa Fe National Forest Plan (SFNFP) requires that canopy cover of mid-aged (VSS 4)1, mature (VSS 5) and old (VSS 6) ponderosa pine forests be managed for an average canopy cover

1 VSS is Vegetative Structural Stage. Canopy cover is the percentage of ground area shaded by overhead foliage (Daubenmire 1959 cited in Ganey and Block 1994:21) measured by the vertical crown projection of the upper, mid and lower canopies (USDA Forest Service 1996:92). of 40 percent or greater. For mixed conifer forests the canopy cover averages are one-third 60 percent and two-third 40 percent or greater for mid-aged forest (VSS 4), 50 percent or greater for mature forests (VSS 5) and 60 percent or greater for old forest (VSS 6). Average canopy cover for spruce-fir is one-third 60 percent or greater and two-thirds 40 percent or greater for mid-aged forest (VSS 4) and 60 percent or greater for mature and old forests (VSS 5 and 6).

The SFNFP's canopy cover standards apply to all forest and woodland communities not already protected as Mexican spotted owl habitat (USDA Forest Service 1996:91). These canopy cover minimums protect the Northern Goshawk (*Accipiter gentiles*), a raptor morphologically adapted to dense forests that studies using radio telemetry consistently demonstrate selects habitats with high canopy closure (Austin 1993; Beier and Drennan 1997; Boal et al. 2001; Bright-Smith and Mannan 1994; Drennan and Beier 2003; Hargis et al. 1994 and Stephans 2001). Please indicate the methods used to identify the VSS classes in the project area that meet these canopy cover requirements.

The SFNFP requires the project to [ldquo]identify and manage dispersal (Goshawk) post-family fledging areas (PFA) and nest habitat at 2 to 2.5 miles spacing across the landscape[rdquo] (USDA Forest Service 1996:92). The SFNFP links VSS, tree density and tree age to the [ldquo]site quality of the ecosystem management area[rdquo] (USDA Forest Service 1996:92).

The SFNFP also lists [ldquo]dozer piling[rdquo] as the least preferred treatment for woody debris and wisely [ldquo]limits dozer use for piling or scattering of logging debris so that the forest floor and herbaceous layer is not displaced or destroyed[rdquo] (USDA Forest Service 1996:94). Maintaining the organic surface soil layers where ectomycorrhizae fungi are concentrated[mdash]mobilizing nutrients and providing food for Goshawk prey[mdash]is critically important to sustaining healthy forest ecosystems (Reynolds et al. 1992:31). Please indicate site-specific measures that will be taken to limit dozer piling.

The SFNFP says [ldquo]no treatments should occur in a stand managed for old growth once the stand has achieved minimum structural characteristics of old growth[rdquo] (SFNFP, p. 69).² To determine old growth please indicate the methods used for determining the age of trees in the main canopy; the size, height and number of standing dead trees; the size, length and pieces of down dead trees; the number of decadent trees; the number of tree canopies; and the total percent of canopy cover and how this site-specific data will be used in the [ldquo]quantitative models[rdquo] specified in the SFNFP (USDA Forest Service 1996:95).

In addition, please document how the SFMLRP is [ldquo]incorporating natural variation . . . into management prescriptions[rdquo] . . . maintaining [ldquo]all species of native trees[rdquo] . . . [ldquo]allowing natural canopy gap processes to occur[rdquo] . . . (USDA Forest Service 1996:89) and [ldquo]monitoring management practices within designated peregrine falcon habitat[rdquo] (SFNFP, p. 62) . . . provide [ldquo] . .

2 Old growth is defined on p. 69a of the Forest Plan by cover type for a range of live trees in main canopy, variation in tree diameters, dead trees, tree decadence, number of tree canopies, total basal area and total canopy cover.

. adequate perch and roost trees for raptors . . . within a 200 foot wide stand along . . . major ridges[rdquo] (SFNFP, p. 66) . . . coordinate timber activities in turkey nesting areas [ldquo]to minimize impacts between April 20 and June 10[rdquo] (SFNFP, p. 72) . . . locate log landing areas to the extent practical [ldquo]outside . . . threatened and endangered species habitat[rdquo] (SFNFP, p. 73) . . . maintain adequate cover [ldquo]within 8 chains (530 feet) of actively used elk wallows, licks, and

seeps[rdquo] (SFNFP, p. 73) and, finally, protect [ldquo]trails, blaze trees, and trail markers[rdquo] during timber harvest activities (SFNFP, p. 74).

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The following are comments to the Scoping Report issued June 10, 2019 for the Santa Fe Mountains Landscape Resiliency Project (Project) located on the Espanola and Pecos/Las Vegas Ranger Districts, Santa Fe National Forest (SFNF). Please accept these comments on behalf of the Santa Fe Forest Coalition, Wild Watershed and the nearly 500 citizens who signed the attached online and paper petitions requesting that all activities halt in the 107,000 acre Greater Santa Fe Fireshed until an Environmental Impact Statement (EIS) is prepared. The 30-day comments period ends July 10, 2019 making these comments timely.

The Santa Fe Forest Coalition is an all volunteer nonprofit that educates the public, the media and policy makers on critical issues concerning forest and wildlife preservation in New Mexico. Member groups include Wild Watershed, Once a Forest, Multiple Chemical Sensitivities Taskforce, La Cueva Guardians, Tree Huggers Santa Fe and others. Wild Watershed is an all volunteer organization focused on aquatic conservation and wilderness preservation.

These comments are constrained by the minimal 30-day comment period. The SFNF has offered no justification for limiting public involvement in scoping to such a degree. Due to lack of time important issues may have been overlooked and the full implication of others unrealized.

Therefore, these comments are filed under protest.

1. SIGNIFIANT IMPACTS TO INVENTORIED ROADLESS AREAS REQUIRE DISCLOSURE IN AN ENVIRONMENTAL IMPACT STATEMENT

As can be seen from the following history, the SFNF has consistently failed to comply with the National Environmental Policy Act's (NEPA) requirement to disclose and analyze the cumulative impacts of repeated clearing and annual burning over vast stretches of inventoried roadless areas (IRAs) adjacent to the Pecos Wilderness above Santa Fe. William Odum (1982) succinctly described the resulting environmental degradation from cumulative effects as "the tyranny of small decisions."

In 2001 the SFNF prepared an environmental impact statement (EIS) to analyze the impacts of what turned out to be endless clearing and burning of forests in the Santa Fe Municipal

Watershed. It was hardly mentioned during the protracted analysis for this project that nearly all 15,000 acres (6720 acres within Pecos Wilderness) were national forest inventoried roadless lands.

In 2004, the Hyde Park Wildland Urban Interface Project proposed to clear and burn nearly 2000 acres of inventoried roadless forests to the north of the watershed. That project was successfully appealed twice for failure to consider impacts to IRAs. Hyde Park was resurrected soon after President Trump assumed office. In March of 2018 it was approved using a categorical exclusion for qualifying projects under an amendment to the 2014 Farm Bill. Within weeks another project impacting IRAs, the Pacheco Canyon Forest Resiliency Project, was also approved using the same expedited decision making process.

Despite repeated promises by the Washington office that the Forest Service would comply with all environmental laws, including NEPA, attorneys for the Forest Service argued in *Wild Watershed v. Hurlocker* that Congress had created a "statutory exemption" from NEPA and therefore disclosure and analysis of cumulative impacts was not required.

The Project discussed here, consistent with this history, failed during scoping to even identify protection of IRAs as a potential issue. No information was presented to the public concerning the delineation, location and potential impact to IRAs. A SFNF official said in an email " . .

IRAs are not a layer in the GIS data sets available on our webpage. I'm afraid I've come up

empty-handed.” According to a former Forest Service planner, this is consistent with a longstanding practice of “data-free analysis and analysis-free decision-making” that has plagued the agency for decades (Fairbanks 2005).

This history reveals an institutional bias within the agency as well as a deep local antipathy to roadless area conservation. It is relevant, then, to review the long struggle to preserve roadless areas and wilderness. This review is intended not only to prompt a re-evaluation of the agency’s policy of denial and obstruction but also to honor those who have worked for decades to protect the well-springs of life found in untrammelled wild lands.

In particular, we pay homage to our friend and colleague Carol Johnson for her tireless efforts to preserve the Pecos Wilderness and the surrounding forests that will be impacted by this Project.

Review of Roadless Area Conservation

The U.S. Forest Service Roadless Rule prohibits timber harvest in IRAs with certain limited exceptions. 36 CFR [sect] 294.13. If history is any indication, this Project will likely be approved based upon the following exception: “To maintain or restore the characteristics of ecosystem composition and structure, such as to reduce the risk of uncharacteristic wildfire effects, within the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period.”

Multiple lines of evidence suggests that dry mixed conifer and ponderosa pine forests such as those found in the Project area are shaped and characterized by periodic mixed-severity wildfires that include ecologically significant amounts of weather-driven, high-severity fire. It is well established that large, infrequent, and quite often severe natural disturbances shape and lend complex structure to historical landscapes, and thereby maintain the biological diversity (see Dr. DellaSala comments to the Project, pp. 6-9)

In 1964, Congress passed the Wilderness Act, creating the National Wilderness Preservation System. In addition to designating 9 million acres of National Forest System land as Wilderness, the Act directed the Secretary of Agriculture to complete a study of 34 administratively designated “primitive areas” and determine their suitability for Wilderness designation by September 2, 1974.

In 1971 the Forest Service expanded the scope of the review to include all roadless areas in the inventory and evaluation. This process was known as the Roadless Area Review and Evaluation (RARE). The Final Environmental Impact Statement (FEIS) for RARE was released in 1973.

The FEIS identified 247 roadless areas to be studied further for possible wilderness status.

The National Forest Management Act of 1976 (NFMA) replaced that evaluation process in place at the time with the requirement for an integrated Land and Resource Management Plan (LRMP) for each forest and grassland. By June of 1977, concerns were expressed that the NFMA land management planning process would be too slow to allow timely completion of review of the 247 study areas identified in RARE. Concerns were also raised that some areas might have been overlooked, and that RARE did not adequately inventory the National Grasslands and the Eastern National Forests.

In response to these concerns, the Secretary of Agriculture initiated a nationwide administrative study of roadless areas referred to as RARE II. The FEIS for RARE II was released in January of 1979.

In June, 1979 the State of California initiated a lawsuit (California v. Block) challenging a RARE II decision to designate certain roadless areas in California as non-wilderness. In June of 1980 the U.S District Court ruled that the Rare II FEIS did not comply with NEPA. The Ninth Circuit Court of Appeals affirmed this decision and identified the following deficiencies:

- 1) failure to identify distinguishing wilderness characteristics of each roadless area; 2) failure to adequately assess the wilderness value of each area and to evaluate the impact of non-wilderness designation upon each area’s wilderness characteristics and value; 3) failure to consider the

effect of non-wilderness classification upon future wilderness opportunities; and 4) failure to weigh the economic benefit attributable to development in each area against the wilderness loss each area will suffer from development.

The decision was largely based on the Court's interpretation that NFMA regulations precluded further consideration of wilderness features in assessing environmental consequences of development projects in areas not recommended for wilderness. Because of this lack of discretion, the Court concluded that "[t]he critical decision to commit these areas for non-wilderness uses, at least for the next ten to fifteen years is irreversible and irretrievable.[rdquo]

Following the Circuit Court's decision, the Department of Agriculture revised the NFMA regulations regarding evaluation of roadless areas in forest planning (36 CFR [sect] 219.17 [1982]). These changes included: 1) establishment of new forest planning procedures for evaluating roadless lands for recommendation as wilderness; and 2) removal of language that the Ninth Circuit Court interpreted to mean the Forest Service was foreclosed from considering the roadless character of a roadless area if specific projects were proposed and evaluated in areas allocated to non-wilderness management.

The 1982 NFMA regulations allowed adequate discretion over development of Inventoried Roadless Areas, after approval of forest plans, by making non-wilderness allocation of roadless lands not a "critical decision" or an "irreversible and irretrievable" commitment of resources to development.

This legal premise has since been affirmed by the Ninth Circuit in the case *City of Tenakee Springs v. Block*, 778 F.2d 1402 (9th Cir.1985), where the Court found that non-wilderness multiple-use management prescriptions on the Tongass National Forest Plan were permissive rather than a mandate or commitment to development. The concurring opinion also agreed that NEPA documents for projects proposed under the forest plan in roadless areas assigned to a non-wilderness management prescription must examine the issue of whether to treat, not just how to treat, such areas in order to comply with the Wilderness Act.

In 1994 the 9th Circuit Court of Appeals further addressed the need to analyze the effects of proposed treatment areas to roadless areas. In *Smith v. USFS*, the Court reaffirmed the legal requirement to consider a no-action alternative when proposing such treatments, citing *Idaho Conservation*, 956 F.2d at 1515, in order to [ldquo]preserve the possibility that the area might someday be designated as wilderness.[rdquo]

The 9th Circuit again reaffirmed the significance of development in roadless areas in *Lands Council v. Martin* (2008), where the Court states:

In *Smith*, 33 F.3d at 1078-79, we held that there are at least two separate reasons why logging in roadless areas is environmentally significant, so that its environmental consequences must be considered. First, roadless areas have certain attributes that must be analyzed. Those attributes, such as water resources, soils, wildlife habitat, and recreation opportunities, possess independent environmental significance. Second, roadless areas are significant because of their potential for designation as wilderness areas under the Wilderness Act of 1964, 16 U.S.C. [sect][sect] 1131-1136. *Lands Council*, 479 F. 3d at 640; *Smith*, 33 F.3d at 1078-79.

According to the Forest Service analysis of these legal precedents, dealing with their continuing obligations under the Wilderness Act:

Based on court history and past direction from the Chief, projects within roadless areas must analyze the environmental consequences, including irreversible and irretrievable commitment of resources on roadless area attributes, and the effects for potential designation as wilderness under the Wilderness Act of 1964.... The purpose of the analysis on the roadless resource is to disclose potential effects to roadless and wilderness attributes and determine if, or to what extent it might affect future consideration for wilderness recommendations.

This analysis focuses on the potential effects of project activities on wilderness characteristics

as defined in the Forest Service Handbook (FSH) 1909.12 (72.1). These wilderness characteristics include the following:

- 1) Natural [ndash] The extent to which long-term ecological processes are intact and operating;
- 2) Undeveloped [ndash] The degree to which the impacts documented in natural integrity are apparent to most visitors;
- 3) Outstanding opportunities for solitude or primitive unconfined recreation [ndash] Solitude is a personal, subjective value defined as the isolation from sights, sounds, and presence of others and from developments and evidence of humans. Primitive recreation is characterized by meeting nature on its own terms, without comfort and convenience of facilities;
- 4) Special features and values [ndash] Unique ecological, geographical, scenic, and historical features of an area;
- 5) Manageability [ndash] The ability to manage an area for wilderness consideration and maintain wilderness attributes.

Concerning the potential for cumulative effects of proposed treatments within an IRA, the Forest Service has described the following steps:

- 1) Identify the cumulative effects boundary in space and in time;
- 2) Describe the cumulative effects boundary [ndash] this will be the roadless area expanse. Describe what factors this is based on;
- 3) Describe the temporal boundary [ndash] this will be how long effects of the action will occur on the landscape. Describe what factors this is based on; and
- 4) Describe the past actions and their effects on current conditions. Describe what past actions were considered and summarize how they affected the five wilderness attributes described above. If there are comments that other past actions should have been considered discuss why they were or were not;
- 5) Contrast the effects of proposed actions with past actions. Describe how past actions were developed in relation to the roadless resource and how this proposal considered the roadless resource in its design, e.g. summarize the past actions that occurred, whether or not the actions occurred before or after the forest plan was established, whether or not those past actions were designed to minimize effects on the roadless resources (and if so whether or not they were effective) and how this proposed action contrast with those past actions;
- 6) Describe the effects of ongoing and reasonably foreseeable actions. Identify what actions were considered. If there are comments that others should have been considered discuss why they were or were not. Describe how these actions could affect the five wilderness attributes;
- 7) Describe the combined effects from past, proposed, ongoing, and reasonably foreseeable future actions. Describe the cumulative effects of the proposed action, in addition to the past, present and reasonably foreseeable actions on the five wilderness attributes.

Describe whether or not there would be irreversible or irretrievable commitment of resources.

National forest roadless lands are heralded for their conservation values. Those values are described at length in the preamble of the Roadless Area Conservation Rule (RACR) and in the Final Environmental Impact Statement (FEIS) for the RACR. They include: high quality or undisturbed soil, water, and air; sources of public drinking water; diverse plant and animal communities; habitat for threatened, endangered, proposed, candidate, and sensitive species and for those species dependent on large, undisturbed areas of land; primitive, semi-primitive non- motorized, and semi-primitive motorized classes of dispersed recreation; reference landscapes; natural appearing landscapes with high scenic quality; traditional cultural properties and sacred sites; and other locally identified unique characteristics (e.g., uncommon geological formations, unique wetland complexes, exceptional hunting and fishing opportunities).

Roadless lands are also responsible for higher quality water and watersheds. Anderson et al. 2012 assessed the relationship of watershed condition and land management status, and found a strong spatial association between watershed health and protective designations. DellaSalla et al. 2011 found that undeveloped and roadless watersheds are important for supplying downstream users with high-quality drinking water, and that developing those watersheds comes at significant costs associated with declining water quality and availability. Protecting and connecting undeveloped areas is also an important action agencies can take to enhance climate change adaptation.

NEPA requires federal agencies[rsquo] environmental analysis to consider [ldquo]any adverse environmental

effects which cannot be avoided.[rdquo] 42 U.S.C. [sect] 4332(2)(C)(ii). When several actions may have cumulative or synergistic environmental impacts, Forest Service must consider these actions together and prepare a more comprehensive environmental analysis. 40 C.F.R. [sect] 1508.8(b). Cumulative impacts are [ldquo]the impact[s] on the environment which result 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 understands such actions.[rdquo] 40 C.F.R. [sect] 1508.7.

This Project is part of a much larger and more ambitious program to [ldquo]change forest conditions[rdquo] on the 107,000 acre Greater Santa Fe Fireshed, a large proportion of which is within IRAs. These actions in aggregate will likely cause significant adverse direct, indirect and cumulative impacts on the human environment[mdash]including but not limited to significant health effects for the surrounding community from regular and repetitive prescribed burns, as well as to wildlife communities that are commonly associated with dense forests like those the Project is intended to substantially alter, and on the wilderness characteristics, whose use and enjoyment is appreciated by many who value untrammeled natural amenities found in the roadless areas.

It is also likely that there are substantial [ldquo]unroaded[rdquo] areas that could become inventoried roadless lands and recommended for wilderness designation in the future. These lands play an important ecological role in ensuring the persistence of species, providing connectivity and ensuring watershed functionality.

Maintaining and enhancing the roadless character of these lands will contribute to the achievement of the substantive provisions in sections 219.8, 219.9, and 219.10 of the 2012 forest planning rule. The improvement of 94 miles of road may have significant damaging impacts on the natural values and scenic integrity of these unroaded lands by increasing access, altering water flows and reducing wildlife security.

Therefore, the Project planning team must identify, delineate and quantify unroaded lands and take the required hard look to determine if planned clearing and burning activities may have significant impacts. We strongly oppose any developments in unroaded portions of the Project area until potential impacts can be comprehensively disclosed and analyzed.

In summary, the cumulative effects of clearing and burning thousands of acres over many decades in unroaded, lightly-roaded and IRAs eligible for wilderness must be analyzed and disclosed in an EIS.

2. PROJECT PURPOSE AND NEED ARE INCONSISTENT WITH HFRA[rsquo]S REQUIREMENT TO RETAIN LARGE AND OLD TREES AND NFMA[rsquo]S CONSISTENCY STANDARD

Projects authorized under Section 602 of the Healthy Forest Restoration Act (HFRA) may only be implemented [ldquo]in a manner that maximizes the retention of old growth and large trees, as appropriate for the forest type, to the extent that the trees promote stands that are resilient to insects and disease.[rdquo] 16 U.S.C. [sect] 6591a(e).

In addition, the HFRA requires that the Forest Service: "fully maintain, or contribute toward the restoration of, the structure and composition of old growth stands according to the pre-fire suppression old growth conditions characteristic of the forest type, taking into account the contribution of the stand to landscape fire adaptation and watershed health, and retaining the large trees contributing to old growth structure.[rdquo] <https://www.fs.fed.us/projects/hfi/field-guide/web/page11.php>.

The National Forest Management Act (NFMA) also imposes on the Forest Service a duty to ensure that any specific project in the forest complies with the [ldquo]land resource management plan of the entire forest,[rdquo] in this case the SFNF Plan. 16 U.S.C [sect] 1604(i).

The SFNF Plan[rsquo]s old growth standards begin with an admission of uncertainty, followed by a commitment to learn and identify old growth in all project planning:

Old growth is not well understood in the Southwest. Consequently, as knowledge is gained the characteristics and inherent values of old growth stands will be better defined. Site specific identification of old growth will occur during ecosystem area analysis or project planning. (SFNF Plan p. 67)

Uncertainty prompts our concerns. First, why is only the bare minimum of 20 percent of the project area—the floor established by the SFNF Plan—being managed for old growth?

Managing for minimums gives no room for error and errors are inevitable given the acknowledged uncertainty and unprecedented scale and intensity of proposed activities. How is managing for minimums consistent with the SFNF Plan that requires projects to [ldquo]strive to create or sustain as much old growth compositional, structural, and functional flow as possible over time at multiple-area scales?[rdquo]

It is unclear how old growth can be sustained as required by the SFNF Plan when as much as 30 percent of remainder trees left after aggressive clearing die in prescribed fires; more from wind throw in newly opened stands. Also, Ips beetle populations increase dramatically in untreated slash during dry conditions often overwhelming old growth ponderosa pines.

Second, how does managing for minimum old growth, together with the admitted lack of understanding, [ldquo]maximize the retention of old growth and large trees[rdquo] required by HFRA? Third, how does discretionary cutting of trees up to 24 inches dbh [ldquo]maximize the retention of old growth?[rdquo]

Fourth, how will project-level knowledge be gained to better define [ldquo]the characteristics and inherent values of old growth stands?[rdquo] For example, how have the SFNF Plan[rsquo]s parameters for determining old growth been refined for this Project? These include: number of live trees in main canopy; variation in tree diameters; dead trees (standing snags and downed logs); tree decadence; number of tree canopies; total basal area; and, total percent canopy cover. Five, will project-level monitoring be done to ensure compliance with the HFRA old growth retention standard?

3. THE SCOPING DOCUMENT LACKS THE NECESSARY SITE-SPECIFIC DETAIL TO COMPLY WITH NEPA

The National Environmental Policy Act (NEPA) is our basic national charter for protection of the environment. 40 C.F.R. [sect] 1500.1. In enacting NEPA, Congress recognized the [ldquo]profound impact[rdquo] of human activities, including [ldquo]resource exploitation,[rdquo] on the environment and declared a national policy [ldquo]to create and maintain conditions under which man and nature can exist in productive harmony.[rdquo] 42 U.S.C. [sect] 4331(a).

The statute has two fundamental two goals: (1) to ensure that the agency will have detailed information on significant environmental impacts when it makes decisions; and (2) to guarantee that this information will be available to a larger audience. *Envtl. Prot. Info. Ctr. v. Blackwell*, 389 F. Supp. 2d 1174, 1184 (N.D. Cal. 2004) (quoting *Neighbors of Cuddy Mt. v. Alexander*, 303 F.3d 1059, 1063 (9th Cir. 2002)).

Analyzing and disclosing site-specific impacts is critical to achieve these goals because when, where and how activities occur on a landscape strongly determines the nature of the impact.

Location data is especially critical to the site-specific analysis NEPA requires. *New Mexico ex rel Richardson*, 565 F.3d at 706 and 707.

NEPA further mandates that the agency provide the public [ldquo]the underlying environmental data[rsquo] from which the Forest Service develop[ed] its opinions and arrive[d] at its decisions.[rdquo] *WildEarth Guardians v. Mont. Snowmobile Ass[rsquo]n*, 790 F.3d 920, 925 (9th Cir. 2015).

In this case, the SFNF failed to disclose site-specific impacts and failed to provide the public with any underlying data supporting the Project's purpose and need. In particular, the scoping document does not disclose when, where, how much, what sequence or the specific location of tree clearing, burning and road improvements. Nor does it provide detailed disclosure of the necessary mitigation measures designed to lessen the impacts of Project implementation.

Instead, in seeking flexibility to respond to changing conditions, the SFNF apparently intends to postpone site-specific project design and analysis until after the agency decision is made. This upends NEPA's central purpose that agencies look before they leap. More importantly, keeping essential details of Project implementation under wraps until after the close of the comment period prevents the public from being involved [ldquo]to the fullest extent possible . . . in decisions which affect the quality of the human environment.[rdquo] 40 C.F.R. [sect] 1500.2(d).

As noted earlier, no information was presented to the public concerning the delineation, location and potential impact to IRAs. The impacts of tree clearing and burning projects in Hyde Park, Pacheco Canyon and the Santa Fe Municipal Watershed were not revealed despite these on-going projects being adjacent to or enclosed within the Project area. Nor were reasonably foreseeable future actions within the 107,000 acre Greater Santa Fe Fireshed disclosed. Without this information, the public is left in the dark concerning the cumulative impacts of a host of environmentally significant interconnected issues.

The Project proposes to upgrade 94 miles little used roads that will likely significantly impact soils, water quality, unfragmented habitat blocks, critical habitats, and fire risk. This is a significant issue for environmental analysis, yet many details are lacking. Portions of the project area feature steep slopes where improved roads and ground-based tree clearing activities may permanently impair soil productivity even if their use is temporary (Gucinski et al. 2001). Road-related soil erosion is a chronic source of sediment that can limit water quality and affect habitat for riparian-dependent species.

Road-stream crossings have high potential to adversely impact water quality (Endicott 2008) but the location of crossings is not disclosed. Road construction, tree clearing and burning may combine to increase overland water flow and runoff by removing vegetation and altering physical and chemical properties of soil, which can permanently alter watershed function (Elliot 2010 and Robichaud et al. 2010).

The scoping document does not disclose the presence of unauthorized roads and trails that may be causing significant resource damage. Simply blocking entrances along other measures is often ineffective at preventing longstanding unauthorized use or addressing resource concerns. This is a significant issue that requires detailed disclosure of the extent, location and impacts. The lack of specificity precludes our ability to provide meaningful comments or determine the efficacy of the mitigation measures.

The extent of unauthorized roads should have been informed by the SFNF forest-wide Travel Analysis Report (TAR) generated to support compliance with Subpart A of the Travel Management Rule, or by a project specific TAR. Subpart A also directs the agency to [ldquo]identify the roads on lands under Forest Service jurisdiction that are no longer needed,[rdquo] and therefore should be closed or decommissioned. A project specific analysis must evaluate all unneeded roads in the Project area for closure or decommissioning.

4. PROTECTION OF THE UNIQUE POPULATION OF SWWP IS A SIGNIFICANT ISSUE THAT WAS NOT IDENTIFIED IN THE SCOPING DOCUMENT

In 2009 the Santa Fe Municipal Watershed 20 Year Protection Plan recommended that a self-sustaining population of Southwestern White Pine (SWWP) be protected during on-going maintenance activities. To quote from the Protection Plan:

During planning of restoration treatments a concern was expressed for the fate of Southwestern

white pines in the watershed, because populations have suffered in the West in recent years due to the exotic white pine blister rust. White pines in the watershed have been reproducing successfully in spite of the threat of blister rust and thus the Santa Fe Watershed has been identified as a possible sub-regional refugia for this tree species. The protection of southwestern white pines should continue to be an objective throughout long-term prescribed burning maintenance. (p. 20)

The SWWP refugia mentioned in this plan extends into the Project area. At the northern limits of its distribution, SWWP may be exhibiting unique resistance to white pine blister rust. Removing individuals that are genetically resistant before it can be determined their value in countering the disease would be a significant loss to regional biodiversity.

Also, this Project must be consistent with the SFNF Plan's reforestation standards that require a minimum of 120 SWWP remain per acre following clearing and burning (replacement page 69a).

Unfortunately, the Forest Service has a long history of ignoring evolutionary processes such as natural selection. In its formative years the agency encouraged land owners along the eastern seaboard to cut down all American chestnuts before they were killed by an exotic blight. As a result genetically resistant trees that may have allowed the species to survive and adapt were lost (Kelly 1924). A more recent example is salvage logging of beetle killed white bark pine in the northern Rockies (Six et al. 2018).

This vital issue was not mentioned during scoping despite the SFNF being alerted last December to the loss of thousands of SWWP during the initial clearing of the Hyde Park WUI project (see attached letter to Melonas Dec. 18, 2018).

5. A VIEWSHED CORRIDOR PLAN MUST BE PREPARED AND OTHER MITIGATION MEASURES TAKEN TO BE CONSISTENT WITH THE SFNF FOREST PLAN.

NFMA requires that any action taken at the project-specific level must comply with the national forest's Forest Plan. 16 U.S.C. Sec. 1604(i). Forest Service procedures also require consistency with the Forest Land and Resource Management Plan (FSM 1922.12 and FSH 1909.12).

The SFNF Plan for management area D (p. 113) requires that site-specific projects [ldquo]develop Viewshed Corridor Plans as a part of project level planning for all vegetation management projects.[rdquo] The Viewshed Corridor Plan must be developed in order to meet the visual quality objective of retention. Management area D (p. 116) also specifies that [ldquo]fuel treatment methods with effects lasting no longer than one year are acceptable.[rdquo] Management area L requires that [ldquo]roads constructed will be closed immediately following the activity, scarified and reseeded.[rdquo] The purpose and need of this Project did not reflect these SFNF Plan requirements.

Please ensure that these SFNF Plan consistency requirements are included in the EIS.

6. A RISK ASSESSMENT REVIEW SHOWED THAT A TNC RISK ASSESSMENT CANNOT BE USED TO SUPPORT WILDFIRE RISK REDUCTION TREATMENTS

A wildfire risk assessment of the Greater Santa Fe Fireshed produced by The Nature Conservancy (TNC) cannot be relied on by the SFNF to support this Project because it did not address the key issue of probability. The review is attached.

It also did not estimate the costs of potentially damaged resources or the cost associated with risk reduction treatments. Further, the TNC study did not address the likelihood that resources would be damaged in the event of a fire or address the effectiveness of risk reduction treatments. The review notes that the likelihood of a wildfire occurring could have been calculated from historic records of wildfire along with consideration of the potential impacts of climate change.

But this did not occur.

7. QUESTIONS THAT WERE NOT ADDRESSED DURING PUBLIC MEETINGS

The two public meeting held in conjunction with Project scoping were dominated by SFNF presentations. Time for questions from public was limited. Public meetings where the public is mostly relegated to being an audience does not comport with a fundamental purpose of NEPA which mandates that [ldquo]federal agencies shall to the fullest extent possible . . . encourage and facilitate public involvement in decisions which affect the quality of the human environment.[rdquo] 40

C.F.R. [sect] 1500.2(d). Therefore, we are exercising our public involvement rights during the scoping period by submitting the following substantive questions:

1. PURPOSE AND NEED AND NATIONAL ENVIRONMENTAL POLICY ACT

? Why isn[rsquo]t protecting lives and property the primary purpose of this project? Making vulnerable homes fire-safe and clearing flammable vegetation immediately around structures

are proven strategies.

? Will measures to protect soils, water quality and wildlife habitat be mandatory and enforceable if they are proposed in an Environmental Assessment as opposed to an

Environmental Impact Statement? Please explain the role of mitigation measures in each document.

2. ROADLESS FORESTS AND ROAD IMPROVEMENT

? How many inventoried roadless areas exist in this area? Will they be proposed for Wilderness in the new forest plan? Why weren[rsquo]t project overlays of roadless areas presented in the

scoping document or at public meetings?

? Improving roads will increase human caused fires in this area. Does the SFNF have the capacity of responding to this increase?

? How will road decommissioning [ldquo]restore[rdquo] unneeded roads? Shouldn[rsquo]t unneeded roads be obliterated to protect water quality and wildlife habitat and prevent the spread of invasive plants and access by arsonists and poachers?

? How will ATVs be effectively restricted from newly improved roads?

3. CLIMATE DISRUPTION

? Is the Forest Service allowed to discuss the role that human emissions play in creating a hotter and drier climate in the Southwest? If so, why is climate disruption so rarely

addressed by the SFNF?

? Is current climate science being used to analyze the impacts of clearing trees and annual burning?

? Why isn[rsquo]t climate change mentioned as the primary driver of larger and more frequent high-severity fires, not the build up of fuels?

? Why is the aim of this project to restore past forest structure instead of working with natural

succession and evolutionary processes to help the forest adapt to a warmer and drier climate?

4. WILDLIFE AND ANCIENT FORESTS

? How will wildlife corridors be maintained in areas cleared and annually burned? Have corridors been identified in the project area?

? Will clearing and burning be restricted in the spring to protect breeding bird nests and other wildlife? If not, please explain why.

? Old growth aspen is important breeding bird habitat. Clearing and burning conifers in the understory will cause significant harm. Will bird populations in old growth aspen habitat be monitored to determine impacts? If not, please explain why.

? Why are the threats of high severity fire to Mexican spotted owl habitat highlighted while its benefits and the adaptability of the owl to burned forest habitat not discussed? Does the SFNF monitor the Mexican spotted owl population? If so, what are the current trends?

? Why is retaining the minimum allowed old growth the aim of this project when the forest plan requires as much old growth be managed as possible?

? Preservation of old growth and fuel reduction have conflicting aims. How will old growth forests with their dense multistoried and high canopy cover be maintained on a minimum of 20% of the project area?

5. CLEARING TREES AND ANNUAL BURNING

? How many live trees will remain after the initial clearing and burning? How many remainder trees are expected to die in prescribed fires and subsequent wind throw in newly opened stands?

? Will the legally required regeneration standards for remainder trees be monitored? If so will that data publicly be available?

? Will the size of burned debris piles be limited to protect soils and discourage invasive plants from becoming established?

? Why do spruce/fir and piñon/juniper forests with mixed-severity fire regimes receive the same treatment as ponderosa pine and dry mixed conifer forests with low-severity fire regimes?

? Why are protection measures for the currently secure but vulnerable Southwestern White Pine population not discussed? Will you cut down genetically resistant white pines before it can be determined their value in countering white pine blister rust?

? Will on-going livestock grazing impede the goal of restoring low-severity fire regimes?

? Reference conditions are mentioned as being used to establish a desired forest structure.

Please identify the reference sites in the project's Colorado Rockies bioregion.

Respectfully Submitted,

/s/ Sam Hitt Sam Hitt

President SFFC

Founder Wild Watershed

REFERENCES

Anderson, H. Mike et al., 2012. Watershed Health in Wilderness, Roadless, and Roaded Areas of the National Forest System. The Wilderness Society, Washington DC. <http://wilderness.org/resource/watershed-health-wilderness-roadless-and-roaded-areas-national-forest-system>.

Austin, K.K. 1993. Habitat use and home range size of breeding northern goshawks in the southern Cascades. M.S. thesis, Oregon State University: 56 pp.

Beier, P. and J.E. Drennan. 1997. Vegetation structure and prey abundance in foraging areas of northern goshawks. *Ecological Applications* 7:564-571

Boal C.D., D.E. Anderson and P.L. Kennedy. 2001. Home range and habitat use of northern goshawks (*Accipiter gentiles*) in Minnesota, Final Report, Minnesota Coop. Fish and Wildlife Research Unit.

Bright-Smith, D.J. and R.W. Mannan. 1994. Habitat use by breeding male northern goshawks in northern Arizona. *Studies in Avian Biology* 16:58-65.

DellaSala, D., J. Karr, and D. Olson. Roadless areas and clean water. *Journal of Soil and Water Conservation*, vol. 66, no. 3. May/June 2011.

Drennan, J.E. and P. Beier. 2003. Forest structure and prey abundance in winter habitat of northern goshawks. *Journal of Wildlife Management* 67(1):177-185.

Elliot, W.J. 2010. Effects of forest biomass use on watershed processes in the western United States. *Western Journal of Applied Forestry* 25: 12-17.

Endicott, D. 2008. National Level Assessment of Water Quality Impairments Related to Forest Roads and Their Prevention by Best Management Practices. Final report to U.S. Environmental Protection Agency, Contract No. EP-C-05-066, Task Order 002. Great Lakes Environmental Ctr.: Traverse City, MI. December. 259 pp

Fairbanks, R. 2005. Why the Forest Service needs whistleblowers, *Forest Magazine*, 7:1.

Friederici, P. (Ed.). 2003. *Ecological Restoration of Southwestern Ponderosa Pine Forests*. Island Press: Washington, DC.

Ganey, J.L. and W.M. Block. 1994. A comparison of two techniques for measuring canopy closure. *Western Journal of Applied Forestry*, Vol. 9, No. 1.

Hargis, C.D., C. McCarthy and R.D. Perloff. 1994. Home ranges and habitat use of northern goshawks in eastern California. *Studies in Avian Biology* 16:66-74.

Kaufmann, M.R., W.H. Moir, and W.W. Covington. 1992. Old-growth forests: what do we know about their ecology and management in the Southwest and Rocky Mountain regions? Pp. 1-10 in:

M.R. Kaufmann, W.H. Moir, and R.L. Bassett (eds.). *Old-Growth Forests in the Southwest and Rocky Mountain Regions: Proceedings from a Workshop (1992)*. Portal, AZ. USDA For. Serv. Gen. Tech. Rep.

RM-213. Fort Collins, CO.

Gucinski, H., M.J. Furniss, R.R. Ziemer and M.H. Brookes (eds.). 2001. Forest Roads: A Synthesis of Scientific Information. USDA For. Serv. Gen. Tech. Rep. PNW-GTR-509. Portland, OR.

Kelly, A.R. Chestnut surviving blight. *Science* 40 (1924): 292-93

Luysaert, S., E.D. Schulze, A. Bonner, A. Knohl, D. Hessenmüller, B.E. Law, P. Ciais and J. Grace. 2008. Old-growth forests as global carbon sinks. *Nature* 455: 213-15.

Odum W.E. 1982. Environmental degradation and the tyranny of small decisions. *Bioscience* 33:728-729.

Reynolds, R.T.; Graham, R.T.; Reiser, M.H.; Bassett, R.L.; Kennedy, P.L.; Boyce, D.A., Jr.; Goodwin, G.; Smith, R.; Fisher, E.L. 1992. Management recommendations for the northern goshawk in the Southwestern United States. General Technical Report RMRS-GTR-217. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fort Collins, CO. 90 pp.

Robichaud, P.R., L.H. MacDonald and R.B. Foltz. 2010. Fuel management and erosion. Ch. 5 in:

W.J. Elliot, I.S. Miller and L. Audin (eds.). Cumulative Watershed Effects of Fuel Management in the Western United States. USDA For. Serv. Rocky Mtn. Res. Sta. Gen. Tech. Rep. RMRS- GTR-231. Fort Collins, CO.

Six, D., C. Vergobbi and M. Cutter. 2018. Are survivors different? Genetic-based selection of trees by mountain pine beetle during climate change-driven outbreaks in a high-elevation pine forest. *Frontiers in Plant Science*.

Stephens, R.M. 2001. Migration, habitat use, and diet of northern goshawks (*Accipiter gentilis*) that winter in the Uinta Mountains, Utah. Masters Thesis, Univ. of Wyoming, 63 pp.

USDA Forest Service. 1996. Record of Decision for Amendment of Forest Plans, Arizona and New Mexico. June 5, 1996."



July 17, 2019

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submitted to: <https://www.fs.usda.gov/project/?project=55088>

re: Supplemental Comments on Santa Fe Mountains Landscape Resiliency Project Scoping Report

Dear James:

These supplemental comments are in addition to the timely comments below submitted via email on July 10, 2019 to the Santa Fe Mountains Landscape Resiliency Project Scoping Report (SFMLRP). Today's supplemental comments are also timely as they are submitted within the extended comment period which ends July 17, 2019. The references cited in both comments are consolidated at the end.

These supplemental comments concern the National Forest Management Act (NFMA) requirement that any action taken at the project-specific level comply with the national forest's Forest Plan. 16 U.S.C. Sec. 1604(i). Forest Service procedures also require consistency with the Forest Land and Resource Management Plan (FSM 1922.12 and FSH 1909.12).

The Santa Fe National Forest Plan (SFNFP) requires that canopy cover of mid-aged (VSS 4)¹, mature (VSS 5) and old (VSS 6) ponderosa pine forests be managed for an average canopy cover

¹ VSS is Vegetative Structural Stage. Canopy cover is the percentage of ground area shaded by overhead foliage (Daubenmire 1959 cited in Ganey and Block 1994:21) measured by the vertical crown projection of the upper, mid and lower canopies (USDA Forest Service 1996:92).

of 40 percent or greater. For mixed conifer forests the canopy cover averages are one-third 60 percent and two-third 40 percent or greater for mid-aged forest (VSS 4), 50 percent or greater for mature forests (VSS 5) and 60 percent or greater for old forest (VSS 6). Average canopy cover for spruce-fir is one-third 60 percent or greater and two-thirds 40 percent or greater for mid-aged forest (VSS 4) and 60 percent or greater for mature and old forests (VSS 5 and 6).

The SFNFP's canopy cover standards apply to all forest and woodland communities not already protected as Mexican spotted owl habitat (USDA Forest Service 1996:91). These canopy cover minimums protect the Northern Goshawk (*Accipiter gentiles*), a raptor morphologically adapted to dense forests that studies using radio telemetry consistently demonstrate selects habitats with high canopy closure (Austin 1993; Beier and Drennan 1997; Boal et al. 2001; Bright-Smith and Mannan 1994; Drennan and Beier 2003; Hargis et al. 1994 and Stephans 2001). Please indicate the methods used to identify the VSS classes in the project area that meet these canopy cover requirements.

The SFNFP requires the project to “identify and manage dispersal (Goshawk) post-family fledging areas (PFA) and nest habitat at 2 to 2.5 miles spacing across the landscape” (USDA Forest Service 1996:92). The SFNFP links VSS, tree density and tree age to the “site quality of the ecosystem management area” (USDA Forest Service 1996:92).

The SFNFP also lists “dozer piling” as the least preferred treatment for woody debris and wisely “limits dozer use for piling or scattering of logging debris so that the forest floor and herbaceous layer is not displaced or destroyed” (USDA Forest Service 1996:94). Maintaining the organic surface soil layers where ectomycorrhizae fungi are concentrated—mobilizing nutrients and providing food for Goshawk prey—is critically important to sustaining healthy forest ecosystems (Reynolds et al. 1992:31). Please indicate site-specific measures that will be taken to limit dozer piling.

The SFNFP says “no treatments should occur in a stand managed for old growth once the stand has achieved minimum structural characteristics of old growth” (SFNFP, p. 69).² To determine old growth please indicate the methods used for determining the age of trees in the main canopy; the size, height and number of standing dead trees; the size, length and pieces of down dead trees; the number of decadent trees; the number of tree canopies; and the total percent of canopy cover and how this site-specific data will be used in the “quantitative models” specified in the SFNFP (USDA Forest Service 1996:95).

In addition, please document how the SFMLRP is “incorporating natural variation . . . into management prescriptions” . . . maintaining “all species of native trees” . . . “allowing natural canopy gap processes to occur” . . . (USDA Forest Service 1996:89) and “monitoring management practices within designated peregrine falcon habitat” (SFNFP, p. 62) . . . provide “. . .

² Old growth is defined on p. 69a of the Forest Plan by cover type for a range of live trees in main canopy, variation in tree diameters, dead trees, tree decadence, number of tree canopies, total basal area and total canopy cover.

. adequate perch and roost trees for raptors . . . within a 200 foot wide stand along . . . major ridges” (SFNFP, p. 66) . . . coordinate timber activities in turkey nesting areas “to minimize impacts between April 20 and June 10” (SFNFP, p. 72) . . . locate log landing areas to the extent practical “outside . . . threatened and endangered species habitat” (SFNFP, p. 73) . . . maintain adequate cover “within 8 chains (530 feet) of actively used elk wallows, licks, and seeps” (SFNFP, p. 73) and, finally, protect “trails, blaze trees, and trail markers” during timber harvest activities (SFNFP, p. 74).

The following are comments to the Scoping Report issued June 10, 2019 for the Santa Fe Mountains Landscape Resiliency Project (Project) located on the Espanola and Pecos/Las Vegas Ranger Districts, Santa Fe National Forest (SFNF). Please accept these comments on behalf of the Santa Fe Forest Coalition, Wild Watershed and the nearly 500 citizens who signed the attached online and paper petitions requesting that all activities halt in the 107,000 acre Greater Santa Fe Fireshed until an Environmental Impact Statement (EIS) is prepared. The 30-day comments period ends July 10, 2019 making these comments timely.

The Santa Fe Forest Coalition is an all volunteer nonprofit that educates the public, the media and policy makers on critical issues concerning forest and wildlife preservation in New Mexico. Member groups include Wild Watershed, Once a Forest, Multiple Chemical Sensitivities Taskforce, La Cueva Guardians, Tree Huggers Santa Fe and others. Wild Watershed is an all volunteer organization focused on aquatic conservation and wilderness preservation.

These comments are constrained by the minimal 30-day comment period. The SFNF has offered no justification for limiting public involvement in scoping to such a degree. Due to lack of time important issues may have been overlooked and the full implication of others unrealized. Therefore, these comments are filed under protest.

1. SIGNIFIANT IMPACTS TO INVENTORIED ROADLESS AREAS REQUIRE DISCLOSURE IN AN ENVIRONMENTAL IMPACT STATEMENT

As can be seen from the following history, the SFNF has consistently failed to comply with the National Environmental Policy Act’s (NEPA) requirement to disclose and analyze the cumulative impacts of repeated clearing and annual burning over vast stretches of inventoried roadless areas (IRAs) adjacent to the Pecos Wilderness above Santa Fe. William Odum (1982) succinctly described the resulting environmental degradation from cumulative effects as “the tyranny of small decisions.”

In 2001 the SFNF prepared an environmental impact statement (EIS) to analyze the impacts of what turned out to be endless clearing and burning of forests in the Santa Fe Municipal

Watershed. It was hardly mentioned during the protracted analysis for this project that nearly all 15,000 acres (6720 acres within Pecos Wilderness) were national forest inventoried roadless lands.

In 2004, the Hyde Park Wildland Urban Interface Project proposed to clear and burn nearly 2000 acres of inventoried roadless forests to the north of the watershed. That project was successfully appealed twice for failure to consider impacts to IRAs. Hyde Park was resurrected soon after President Trump assumed office. In March of 2018 it was approved using a categorical exclusion for qualifying projects under an amendment to the 2014 Farm Bill. Within weeks another project impacting IRAs, the Pacheco Canyon Forest Resiliency Project, was also approved using the same expedited decision making process.

Despite repeated promises by the Washington office that the Forest Service would comply with all environmental laws, including NEPA, attorneys for the Forest Service argued in *Wild Watershed v. Hurlocker* that Congress had created a “statutory exemption” from NEPA and therefore disclosure and analysis of cumulative impacts was not required.

The Project discussed here, consistent with this history, failed during scoping to even identify protection of IRAs as a potential issue. No information was presented to the public concerning the delineation, location and potential impact to IRAs. A SFNF official said in an email “. . . IRAs are not a layer in the GIS data sets available on our webpage. I'm afraid I've come up empty-handed.” According to a former Forest Service planner, this is consistent with a longstanding practice of “data-free analysis and analysis-free decision-making” that has plagued the agency for decades (Fairbanks 2005).

This history reveals an institutional bias within the agency as well as a deep local antipathy to roadless area conservation. It is relevant, then, to review the long struggle to preserve roadless areas and wilderness. This review is intended not only to prompt a re-evaluation of the agency’s policy of denial and obstruction but also to honor those who have worked for decades to protect the well-springs of life found in untrammelled wild lands.

In particular, we pay homage to our friend and colleague Carol Johnson for her tireless efforts to preserve the Pecos Wilderness and the surrounding forests that will be impacted by this Project.

Review of Roadless Area Conservation

The U.S. Forest Service Roadless Rule prohibits timber harvest in IRAs with certain limited exceptions. 36 CFR § 294.13. If history is any indication, this Project will likely be approved based upon the following exception: “To maintain or restore the characteristics of ecosystem composition and structure, such as to reduce the risk of uncharacteristic wildfire effects, within the range of variability that would be expected to occur under natural disturbance regimes of the

current climatic period.”

Multiple lines of evidence suggests that dry mixed conifer and ponderosa pine forests such as those found in the Project area are shaped and characterized by periodic mixed-severity wildfires that include ecologically significant amounts of weather-driven, high-severity fire. It is well established that large, infrequent, and quite often severe natural disturbances shape and lend complex structure to historical landscapes, and thereby maintain the biological diversity (see Dr. DellaSala comments to the Project, pp. 6-9)

In 1964, Congress passed the Wilderness Act, creating the National Wilderness Preservation System. In addition to designating 9 million acres of National Forest System land as Wilderness, the Act directed the Secretary of Agriculture to complete a study of 34 administratively designated "primitive areas" and determine their suitability for Wilderness designation by September 2, 1974.

In 1971 the Forest Service expanded the scope of the review to include all roadless areas in the inventory and evaluation. This process was known as the Roadless Area Review and Evaluation (RARE). The Final Environmental Impact Statement (FEIS) for RARE was released in 1973. The FEIS identified 247 roadless areas to be studied further for possible wilderness status.

The National Forest Management Act of 1976 (NFMA) replaced that evaluation process in place at the time with the requirement for an integrated Land and Resource Management Plan (LRMP) for each forest and grassland. By June of 1977, concerns were expressed that the NFMA land management planning process would be too slow to allow timely completion of review of the 247 study areas identified in RARE. Concerns were also raised that some areas might have been overlooked, and that RARE did not adequately inventory the National Grasslands and the Eastern National Forests.

In response to these concerns, the Secretary of Agriculture initiated a nationwide administrative study of roadless areas referred to as RARE II. The FEIS for RARE II was released in January of 1979.

In June, 1979 the State of California initiated a lawsuit (*California v. Block*) challenging a RARE II decision to designate certain roadless areas in California as non-wilderness. In June of 1980 the U.S District Court ruled that the Rare II FEIS did not comply with NEPA. The Ninth Circuit Court of Appeals affirmed this decision and identified the following deficiencies:

- 1) failure to identify distinguishing wilderness characteristics of each roadless area; 2) failure to adequately assess the wilderness value of each area and to evaluate the impact of non-wilderness designation upon each area's wilderness characteristics and value; 3) failure to consider the effect of non-wilderness classification upon future wilderness opportunities; and 4) failure to weigh the economic benefit attributable to development in

each area against the wilderness loss each area will suffer from development.

The decision was largely based on the Court's interpretation that NFMA regulations precluded further consideration of wilderness features in assessing environmental consequences of development projects in areas not recommended for wilderness. Because of this lack of discretion, the Court concluded that "[t]he critical decision to commit these areas for non-wilderness uses, at least for the next ten to fifteen years is irreversible and irretrievable."

Following the Circuit Court's decision, the Department of Agriculture revised the NFMA regulations regarding evaluation of roadless areas in forest planning (36 CFR § 219.17 [1982]). These changes included: 1) establishment of new forest planning procedures for evaluating roadless lands for recommendation as wilderness; and 2) removal of language that the Ninth Circuit Court interpreted to mean the Forest Service was foreclosed from considering the roadless character of a roadless area if specific projects were proposed and evaluated in areas allocated to non-wilderness management.

The 1982 NFMA regulations allowed adequate discretion over development of Inventoried Roadless Areas, after approval of forest plans, by making non-wilderness allocation of roadless lands not a "critical decision" or an "irreversible and irretrievable" commitment of resources to development.

This legal premise has since been affirmed by the Ninth Circuit in the case *City of Tenakee Springs v. Block*, 778 F.2d 1402 (9th Cir.1985), where the Court found that non-wilderness multiple-use management prescriptions on the Tongass National Forest Plan were permissive rather than a mandate or commitment to development. The concurring opinion also agreed that NEPA documents for projects proposed under the forest plan in roadless areas assigned to a non-wilderness management prescription must examine the issue of whether to treat, not just how to treat, such areas in order to comply with the Wilderness Act.

In 1994 the 9th Circuit Court of Appeals further addressed the need to analyze the effects of proposed treatment areas to roadless areas. In *Smith v. USFS*, the Court reaffirmed the legal requirement to consider a no-action alternative when proposing such treatments, citing *Idaho Conservation*, 956 F.2d at 1515, in order to "preserve the possibility that the area might someday be designated as wilderness."

The 9th Circuit again reaffirmed the significance of development in roadless areas in *Lands Council v. Martin* (2008), where the Court states:

In *Smith*, 33 F.3d at 1078-79, we held that there are at least two separate reasons why logging in roadless areas is environmentally significant, so that its environmental consequences must be considered. First, roadless areas have certain attributes that must be analyzed. Those attributes, such as water resources, soils, wildlife habitat, and

recreation opportunities, possess independent environmental significance. Second, roadless areas are significant because of their potential for designation as wilderness areas under the Wilderness Act of 1964, 16 U.S.C. §§ 1131-1136. *Lands Council*, 479 F.3d at 640; *Smith*, 33 F.3d at 1078-79.

According to the Forest Service analysis of these legal precedents, dealing with their continuing obligations under the Wilderness Act:

Based on court history and past direction from the Chief, projects within roadless areas must analyze the environmental consequences, including irreversible and irretrievable commitment of resources on roadless area attributes, and the effects for potential designation as wilderness under the Wilderness Act of 1964.... The purpose of the analysis on the roadless resource is to disclose potential effects to roadless and wilderness attributes and determine if, or to what extent it might affect future consideration for wilderness recommendations.

This analysis focuses on the potential effects of project activities on wilderness characteristics as defined in the Forest Service Handbook (FSH) 1909.12 (72.1). These wilderness characteristics include the following:

- 1) Natural – The extent to which long-term ecological processes are intact and operating;
- 2) Undeveloped – The degree to which the impacts documented in natural integrity are apparent to most visitors;
- 3) Outstanding opportunities for solitude or primitive unconfined recreation – Solitude is a personal, subjective value defined as the isolation from sights, sounds, and presence of others and from developments and evidence of humans. Primitive recreation is characterized by meeting nature on its own terms, without comfort and convenience of facilities;
- 4) Special features and values – Unique ecological, geographical, scenic, and historical features of an area;
- 5) Manageability – The ability to manage an area for wilderness consideration and maintain wilderness attributes.

Concerning the potential for cumulative effects of proposed treatments within an IRA, the Forest Service has described the following steps:

- 1) Identify the cumulative effects boundary in space and in time;
- 2) Describe the cumulative effects boundary – this will be the roadless area expanse. Describe what factors this is based on;
- 3) Describe the temporal boundary – this will be how long effects of the action will occur on the landscape. Describe what factors this is based on;
- 4) Describe the past actions and their effects on current conditions. Describe what past actions were considered and summarize how they affected the five wilderness attributes described above. If there are comments that other past actions should have been considered discuss why they were or were not;
- 5) Contrast the effects of proposed actions with past actions. Describe how past actions were developed in relation to the roadless resource and how this proposal considered the roadless resource in its design, e.g.

summarize the past actions that occurred, whether or not the actions occurred before or after the forest plan was established, whether or not those past actions were designed to minimize effects on the roadless resources (and if so whether or not they were effective) and how this proposed action contrast with those past actions; 6) Describe the effects of ongoing and reasonably foreseeable actions. Identify what actions were considered. If there are comments that others should have been considered discuss why they were or were not. Describe how these actions could affect the five wilderness attributes; 7) Describe the combined effects from past, proposed, ongoing, and reasonably foreseeable future actions. Describe the cumulative effects of the proposed action, in addition to the past, present and reasonably foreseeable actions on the five wilderness attributes. Describe whether or not there would be irreversible or irretrievable commitment of resources.

National forest roadless lands are heralded for their conservation values. Those values are described at length in the preamble of the Roadless Area Conservation Rule (RACR) and in the Final Environmental Impact Statement (FEIS) for the RACR. They include: high quality or undisturbed soil, water, and air; sources of public drinking water; diverse plant and animal communities; habitat for threatened, endangered, proposed, candidate, and sensitive species and for those species dependent on large, undisturbed areas of land; primitive, semi-primitive non-motorized, and semi-primitive motorized classes of dispersed recreation; reference landscapes; natural appearing landscapes with high scenic quality; traditional cultural properties and sacred sites; and other locally identified unique characteristics (e.g., uncommon geological formations, unique wetland complexes, exceptional hunting and fishing opportunities).

Roadless lands are also responsible for higher quality water and watersheds. Anderson et al. 2012 assessed the relationship of watershed condition and land management status, and found a strong spatial association between watershed health and protective designations. DellaSalla et al. 2011 found that undeveloped and roadless watersheds are important for supplying downstream users with high-quality drinking water, and that developing those watersheds comes at significant costs associated with declining water quality and availability. Protecting and connecting undeveloped areas is also an important action agencies can take to enhance climate change adaptation.

NEPA requires federal agencies' environmental analysis to consider "any adverse environmental effects which cannot be avoided." 42 U.S.C. § 4332(2)(C)(ii). When several actions may have cumulative or synergistic environmental impacts, Forest Service must consider these actions together and prepare a more comprehensive environmental analysis. 40 C.F.R. § 1508.8(b). Cumulative impacts are "the impact[s] on the environment which result 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 understands such actions." 40 C.F.R. § 1508.7.

This Project is part of a much larger and more ambitious program to "change forest conditions" on the 107,000 acre Greater Santa Fe Fireshed, a large proportion of which is within IRAs. These

actions in aggregate will likely cause significant adverse direct, indirect and cumulative impacts on the human environment—including but not limited to significant health effects for the surrounding community from regular and repetitive prescribed burns, as well as to wildlife communities that are commonly associated with dense forests like those the Project is intended to substantially alter, and on the wilderness characteristics, whose use and enjoyment is appreciated by many who value untrammeled natural amenities found in the roadless areas.

It is also likely that there are substantial “unroaded” areas that could become inventoried roadless lands and recommended for wilderness designation in the future. These lands play an important ecological role in ensuring the persistence of species, providing connectivity and ensuring watershed functionality.

Maintaining and enhancing the roadless character of these lands will contribute to the achievement of the substantive provisions in sections 219.8, 219.9, and 219.10 of the 2012 forest planning rule. The improvement of 94 miles of road may have significant damaging impacts on the natural values and scenic integrity of these unroaded lands by increasing access, altering water flows and reducing wildlife security.

Therefore, the Project planning team must identify, delineate and quantify unroaded lands and take the required hard look to determine if planned clearing and burning activities may have significant impacts. We strongly oppose any developments in unroaded portions of the Project area until potential impacts can be comprehensively disclosed and analyzed.

In summary, the cumulative effects of clearing and burning thousands of acres over many decades in unroaded, lightly-roaded and IRAs eligible for wilderness must be analyzed and disclosed in an EIS.

2. PROJECT PURPOSE AND NEED ARE INCONSISTENT WITH HFRA’S REQUIREMENT TO RETAIN LARGE AND OLD TREES AND NFMA’S CONSISTENCY STANDARD

Projects authorized under Section 602 of the Healthy Forest Restoration Act (HFRA) may only be implemented “in a manner that maximizes the retention of old growth and large trees, as appropriate for the forest type, to the extent that the trees promote stands that are resilient to insects and disease.” 16 U.S.C. § 6591a(e).

In addition, the HFRA requires that the Forest Service: "fully maintain, or contribute toward the restoration of, the structure and composition of old growth stands according to the pre-fire suppression old growth conditions characteristic of the forest type, taking into account the contribution of the stand to landscape fire adaptation and watershed health, and retaining the large trees contributing to old growth structure." <https://www.fs.fed.us/projects/hfi/field-guide/web/page11.php>.

The National Forest Management Act (NFMA) also imposes on the Forest Service a duty to ensure that any specific project in the forest complies with the “land resource management plan of the entire forest,” in this case the SFNF Plan. 16 U.S.C § 1604(i).

The SFNF Plan’s old growth standards begin with an admission of uncertainty, followed by a commitment to learn and identify old growth in all project planning:

Old growth is not well understood in the Southwest. Consequently, as knowledge is gained the characteristics and inherent values of old growth stands will be better defined. Site specific identification of old growth will occur during ecosystem area analysis or project planning. (SFNF Plan p. 67)

Uncertainty prompts our concerns. First, why is only the bare minimum of 20 percent of the project area—the floor established by the SFNF Plan—being managed for old growth? Managing for minimums gives no room for error and errors are inevitable given the acknowledged uncertainty and unprecedented scale and intensity of proposed activities. How is managing for minimums consistent with the SFNF Plan that requires projects to “strive to create or sustain as much old growth compositional, structural, and functional flow as possible over time at multiple-area scales?”

It is unclear how old growth can be sustained as required by the SFNF Plan when as much as 30 percent of remainder trees left after aggressive clearing die in prescribed fires; more from wind throw in newly opened stands. Also, Ips beetle populations increase dramatically in untreated slash during dry conditions often overwhelming old growth ponderosa pines.

Second, how does managing for minimum old growth, together with the admitted lack of understanding, “maximize the retention of old growth and large trees” required by HFRA? Third, how does discretionary cutting of trees up to 24 inches dbh “maximize the retention of old growth?”

Fourth, how will project-level knowledge be gained to better define “the characteristics and inherent values of old growth stands?” For example, how have the SFNF Plan’s parameters for determining old growth been refined for this Project? These include: number of live trees in main canopy; variation in tree diameters; dead trees (standing snags and downed logs); tree decadence; number of tree canopies; total basal area; and, total percent canopy cover. Five, will project-level monitoring be done to ensure compliance with the HFRA old growth retention standard?

3. THE SCOPING DOCUMENT LACKS THE NECESSARY SITE-SPECIFIC DETAIL TO COMPLY WITH NEPA

The National Environmental Policy Act (NEPA) is our basic national charter for protection of the environment. 40 C.F.R. § 1500.1. In enacting NEPA, Congress recognized the “profound impact” of human activities, including “resource exploitation,” on the environment and declared a national policy “to create and maintain conditions under which man and nature can exist in productive harmony.” 42 U.S.C. § 4331(a).

The statute has two fundamental two goals: (1) to ensure that the agency will have detailed information on significant environmental impacts when it makes decisions; and (2) to guarantee that this information will be available to a larger audience. *Envtl. Prot. Info. Ctr. v. Blackwell*, 389 F. Supp. 2d 1174, 1184 (N.D. Cal. 2004) (quoting *Neighbors of Cuddy Mt. v. Alexander*, 303 F.3d 1059, 1063 (9th Cir. 2002)).

Analyzing and disclosing site-specific impacts is critical to achieve these goals because when, where and how activities occur on a landscape strongly determines the nature of the impact. Location data is especially critical to the site-specific analysis NEPA requires. *New Mexico ex rel Richardson*, 565 F.3d at 706 and 707.

NEPA further mandates that the agency provide the public “the underlying environmental data’ from which the Forest Service develop[ed] its opinions and arrive[d] at its decisions.” *WildEarth Guardians v. Mont. Snowmobile Ass’n*, 790 F.3d 920, 925 (9th Cir. 2015).

In this case, the SFNF failed to disclose site-specific impacts and failed to provide the public with any underlying data supporting the Project’s purpose and need. In particular, the scoping document does not disclose when, where, how much, what sequence or the specific location of tree clearing, burning and road improvements. Nor does it provide detailed disclosure of the necessary mitigation measures designed to lessen the impacts of Project implementation.

Instead, in seeking flexibility to respond to changing conditions, the SFNF apparently intends to postpone site-specific project design and analysis until **after** the agency decision is made. This upends NEPA’s central purpose that agencies look before they leap. More importantly, keeping essential details of Project implementation under wraps until after the close of the comment period prevents the public from being involved “to the fullest extent possible . . . in decisions which affect the quality of the human environment.” 40 C.F.R. § 1500.2(d).

As noted earlier, no information was presented to the public concerning the delineation, location and potential impact to IRAs. The impacts of tree clearing and burning projects in Hyde Park, Pacheco Canyon and the Santa Fe Municipal Watershed were not revealed despite these on-going projects being adjacent to or enclosed within the Project area. Nor were reasonably foreseeable future actions within the 107,000 acre Greater Santa Fe Fireshed disclosed. Without this information, the public is left in the dark concerning the cumulative impacts of a host of environmentally significant interconnected issues.

The Project proposes to upgrade 94 miles little used roads that will likely significantly impact soils, water quality, unfragmented habitat blocks, critical habitats, and fire risk. This is a significant issue for environmental analysis, yet many details are lacking. Portions of the project area feature steep slopes where improved roads and ground-based tree clearing activities may permanently impair soil productivity even if their use is temporary (Gucinski et al. 2001). Road-related soil erosion is a chronic source of sediment that can limit water quality and affect habitat for riparian-dependent species.

Road-stream crossings have high potential to adversely impact water quality (Endicott 2008) but the location of crossings is not disclosed. Road construction, tree clearing and burning may combine to increase overland water flow and runoff by removing vegetation and altering physical and chemical properties of soil, which can permanently alter watershed function (Elliot 2010 and Robichaud et al. 2010).

The scoping document does not disclose the presence of unauthorized roads and trails that may be causing significant resource damage. Simply blocking entrances along other measures is often ineffective at preventing longstanding unauthorized use or addressing resource concerns. This is a significant issue that requires detailed disclosure of the extent, location and impacts. The lack of specificity precludes our ability to provide meaningful comments or determine the efficacy of the mitigation measures.

The extent of unauthorized roads should have been informed by the SFNF forest-wide Travel Analysis Report (TAR) generated to support compliance with Subpart A of the Travel Management Rule, or by a project specific TAR. Subpart A also directs the agency to “identify the roads on lands under Forest Service jurisdiction that are no longer needed,” and therefore should be closed or decommissioned. A project specific analysis must evaluate all unneeded roads in the Project area for closure or decommissioning.

4. PROTECTION OF THE UNIQUE POPULATION OF SWWP IS A SIGNIFICANT ISSUE THAT WAS NOT IDENTIFIED IN THE SCOPING DOCUMENT

In 2009 the Santa Fe Municipal Watershed 20 Year Protection Plan recommended that a self-sustaining population of Southwestern White Pine (SWWP) be protected during on-going maintenance activities. To quote from the Protection Plan:

During planning of restoration treatments a concern was expressed for the fate of Southwestern white pines in the watershed, because populations have suffered in the West in recent years due to the exotic white pine blister rust. White pines in the watershed have been reproducing successfully in spite of the threat of blister rust and thus the Santa Fe Watershed has been identified as a possible sub-regional refugia for this tree species. The protection of

southwestern white pines should continue to be an objective throughout long-term prescribed burning maintenance. (p. 20)

The SWWP refugia mentioned in this plan extends into the Project area. At the northern limits of its distribution, SWWP may be exhibiting unique resistance to white pine blister rust. Removing individuals that are genetically resistant before it can be determined their value in countering the disease would be a significant loss to regional biodiversity.

Also, this Project must be consistent with the SFNF Plan's reforestation standards that require a minimum of 120 SWWP remain per acre following clearing and burning (replacement page 69a).

Unfortunately, the Forest Service has a long history of ignoring evolutionary processes such as natural selection. In its formative years the agency encouraged land owners along the eastern seaboard to cut down all American chestnuts before they were killed by an exotic blight. As a result genetically resistant trees that may have allowed the species to survive and adapt were lost (Kelly 1924). A more recent example is salvage logging of beetle killed white bark pine in the northern Rockies (Six et al. 2018).

This vital issue was not mentioned during scoping despite the SFNF being alerted last December to the loss of thousands of SWWP during the initial clearing of the Hyde Park WUI project (see attached letter to Melonas Dec. 18, 2018).

5. A VIEWSHED CORRIDOR PLAN MUST BE PREPARED AND OTHER MITIGATION MEASURES TAKEN TO BE CONSISTENT WITH THE SFNF FOREST PLAN.

NFMA requires that any action taken at the project-specific level must comply with the national forest's Forest Plan. 16 U.S.C. Sec. 1604(i). Forest Service procedures also require consistency with the Forest Land and Resource Management Plan (FSM 1922.12 and FSH 1909.12).

The SFNF Plan for management area D (p. 113) requires that site-specific projects "develop Viewshed Corridor Plans as a part of project level planning for all vegetation management projects." The Viewshed Corridor Plan must be developed in order to meet the visual quality objective of retention. Management area D (p. 116) also specifies that "fuel treatment methods with effects lasting no longer than one year are acceptable." Management area L requires that "roads constructed will be closed immediately following the activity, scarified and reseeded." The purpose and need of this Project did not reflect these SFNF Plan requirements.

Please ensure that these SFNF Plan consistency requirements are included in the EIS.

6. A RISK ASSESSMENT REVIEW SHOWED THAT A TNC RISK ASSESSMENT CANNOT BE USED TO SUPPORT WILDFIRE RISK REDUCTION TREATMENTS

A wildfire risk assessment of the Greater Santa Fe Fireshed produced by The Nature Conservancy (TNC) cannot be relied on by the SFNF to support this Project because it did not address the key issue of probability. The review is attached.

It also did not estimate the costs of potentially damaged resources or the cost associated with risk reduction treatments. Further, the TNC study did not address the likelihood that resources would be damaged in the event of a fire or address the effectiveness of risk reduction treatments. The review notes that the likelihood of a wildfire occurring could have been calculated from historic records of wildfire along with consideration of the potential impacts of climate change. But this did not occur.

7. QUESTIONS THAT WERE NOT ADDRESSED DURING PUBLIC MEETINGS

The two public meeting held in conjunction with Project scoping were dominated by SFNF presentations. Time for questions from public was limited. Public meetings where the public is mostly relegated to being an audience does not comport with a fundamental purpose of NEPA which mandates that “federal agencies **shall** to the fullest extent possible . . . encourage and facilitate public involvement in decisions which affect the quality of the human environment.” 40 C.F.R. § 1500.2(d). Therefore, we are exercising our public involvement rights during the scoping period by submitting the following substantive questions:

1. PURPOSE AND NEED AND NATIONAL ENVIRONMENTAL POLICY ACT

- * Why isn't protecting lives and property the primary purpose of this project? Making vulnerable homes fire-safe and clearing flammable vegetation immediately around structures are proven strategies.
- * Will measures to protect soils, water quality and wildlife habitat be mandatory and enforceable if they are proposed in an Environmental Assessment as opposed to an Environmental Impact Statement? Please explain the role of mitigation measures in each document.

2. ROADLESS FORESTS AND ROAD IMPROVEMENT

- * How many inventoried roadless areas exist in this area? Will they be proposed for Wilderness in the new forest plan? Why weren't project overlays of roadless areas presented in the scoping document or at public meetings?

- * Improving roads will increase human caused fires in this area. Does the SFNF have the capacity of responding to this increase?
- * How will road decommissioning “restore” unneeded roads? Shouldn’t unneeded roads be obliterated to protect water quality and wildlife habitat and prevent the spread of invasive plants and access by arsonists and poachers?
- * How will ATVs be effectively restricted from newly improved roads?

3. CLIMATE DISRUPTION

- * Is the Forest Service allowed to discuss the role that human emissions play in creating a hotter and drier climate in the Southwest? If so, why is climate disruption so rarely addressed by the SFNF?
- * Is current climate science being used to analyze the impacts of clearing trees and annual burning?
- * Why isn’t climate change mentioned as the primary driver of larger and more frequent high-severity fires, not the build up of fuels?
- * Why is the aim of this project to restore past forest structure instead of working with natural succession and evolutionary processes to help the forest adapt to a warmer and drier climate?

4. WILDLIFE AND ANCIENT FORESTS

- * How will wildlife corridors be maintained in areas cleared and annually burned? Have corridors been identified in the project area?
- * Will clearing and burning be restricted in the spring to protect breeding bird nests and other wildlife? If not, please explain why.
- * Old growth aspen is important breeding bird habitat. Clearing and burning conifers in the understory will cause significant harm. Will bird populations in old growth aspen habitat be monitored to determine impacts? If not, please explain why.
- * Why are the threats of high severity fire to Mexican spotted owl habitat highlighted while it’s benefits and the adaptability of the owl to burned forest habitat not discussed? Does the SFNF monitor the Mexican spotted owl population? If so, what are the current trends?
- * Why is retaining the minimum allowed old growth the aim of this project when the forest plan requires as much old growth be managed as possible?
- * Preservation of old growth and fuel reduction have conflicting aims. How will old growth forests with their dense multistoried and high canopy cover be maintained on a minimum of 20% of the project area?

5. CLEARING TREES AND ANNUAL BURNING

- * How many live trees will remain after the initial clearing and burning? How many remainder trees are expected to die in prescribed fires and subsequent wind throw in newly opened stands?

- * Will the legally required regeneration standards for remainder trees be monitored? If so will that data publicly be available?
- * Will the size of burned debris piles be limited to protect soils and discourage invasive plants from becoming established?
- * Why do spruce/fir and piñon/juniper forests with mixed-severity fire regimes receive the same treatment as ponderosa pine and dry mixed conifer forests with low-severity fire regimes?
- * Why are protection measures for the currently secure but vulnerable Southwestern White Pine population not discussed? Will you cut down genetically resistant white pines before it can be determined their value in countering white pine blister rust?
- * Will on-going livestock grazing impede the goal of restoring low-severity fire regimes?
- * Reference conditions are mentioned as being used to establish a desired forest structure. Please identify the reference sites in the project's Colorado Rockies bioregion.

Respectfully Submitted,

/s/ Sam Hitt

Sam Hitt
 President SFFC
 Founder Wild Watershed

REFERENCES

Anderson, H. Mike et al., 2012. Watershed Health in Wilderness, Roadless, and Roaded Areas of the National Forest System. The Wilderness Society, Washington DC. <http://wilderness.org/resource/watershed-health-wilderness-roadless-and-roaded-areas-national-forest-system>.

Austin, K.K. 1993. Habitat use and home range size of breeding northern goshawks in the southern Cascades. M.S. thesis, Oregon State University: 56 pp.

Beier, P. and J.E. Drennan. 1997. Vegetation structure and prey abundance in foraging areas of northern goshawks. *Ecological Applications* 7:564-571

Boal C.D., D.E. Anderson and P.L. Kennedy. 2001. Home range and habitat use of northern goshawks (*Accipiter gentiles*) in Minnesota, Final Report, Minnesota Coop. Fish and Wildlife Research Unit.

- Bright-Smith, D.J. and R.W. Mannan. 1994. Habitat use by breeding male northern goshawks in northern Arizona. *Studies in Avian Biology* 16:58-65.
- DellaSala, D., J. Karr, and D. Olson. Roadless areas and clean water. *Journal of Soil and Water Conservation*, vol. 66, no. 3. May/June 2011.
- Drennan, J.E. and P. Beier. 2003. Forest structure and prey abundance in winter habitat of northern goshawks. *Journal of Wildlife Management* 67(1):177-185.
- Elliot, W.J. 2010. Effects of forest biomass use on watershed processes in the western United States. *Western Journal of Applied Forestry* 25: 12-17.
- Endicott, D. 2008. National Level Assessment of Water Quality Impairments Related to Forest Roads and Their Prevention by Best Management Practices. Final report to U.S. Environmental Protection Agency, Contract No. EP-C-05-066, Task Order 002. Great Lakes Environmental Ctr.: Traverse City, MI. December. 259 pp
- Fairbanks, R. 2005. Why the Forest Service needs whistleblowers, *Forest Magazine*, 7:1.
- Friederici, P. (Ed.). 2003. *Ecological Restoration of Southwestern Ponderosa Pine Forests*. Island Press: Washington, DC.
- Ganey, J.L. and W.M. Block. 1994. A comparison of two techniques for measuring canopy closure. *Western Journal of Applied Forestry*, Vol. 9, No. 1.
- Hargis, C.D., C. McCarthy and R.D. Perloff. 1994. Home ranges and habitat use of northern goshawks in eastern California. *Studies in Avian Biology* 16:66-74.
- Kaufmann, M.R., W.H. Moir, and W.W. Covington. 1992. Old-growth forests: what do we know about their ecology and management in the Southwest and Rocky Mountain regions? Pp. 1-10 in: M.R. Kaufmann, W.H. Moir, and R.L. Bassett (eds.). *Old-Growth Forests in the Southwest and Rocky Mountain Regions: Proceedings from a Workshop (1992)*. Portal, AZ. USDA For. Serv. Gen. Tech. Rep. RM-213. Fort Collins, CO.
- Gucinski, H., M.J. Furniss, R.R. Ziemer and M.H. Brookes (eds.). 2001. *Forest Roads: A Synthesis of Scientific Information*. USDA For. Serv. Gen. Tech. Rep. PNW-GTR-509. Portland, OR.
- Kelly, A.R. *Chestnut surviving blight*. *Science* 40 (1924): 292-93
- Luyssaert, S., E.D. Schulze, A. Börner, A. Knohl, D. Hessenmöller, B.E. Law, P. Ciais and J. Grace. 2008. Old- growth forests as global carbon sinks. *Nature* 455: 213-15.

Odum W.E. 1982. Environmental degradation and the tyranny of small decisions. *Bioscience* 33:728-729.

Reynolds, R.T.; Graham, R.T.; Reiser, M.H.; Bassett, R.L.; Kennedy, P.L.; Boyce, D.A., Jr.; Goodwin, G.; Smith, R.; Fisher, E.L. 1992. Management recommendations for the northern goshawk in the Southwestern United States. General Technical Report RMRS-GTR-217. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fort Collins, CO. 90 pp.

Robichaud, P.R., L.H. MacDonald and R.B. Foltz. 2010. Fuel management and erosion. Ch. 5 in: W.J. Elliot, I.S. Miller and L. Audin (eds.). Cumulative Watershed Effects of Fuel Management in the Western United States. USDA For. Serv. Rocky Mtn. Res. Sta. Gen. Tech. Rep. RMRS-GTR-231. Fort Collins, CO.

Six, D., C. Vergobbi and M. Cutter. 2018. Are survivors different? Genetic-based selection of trees by mountain pine beetle during climate change-driven outbreaks in a high-elevation pine forest. *Frontiers in Plant Science*.

Stephens, R.M. 2001. Migration, habitat use, and diet of northern goshawks (*Accipiter gentilis*) that winter in the Uinta Mountains, Utah. Masters Thesis, Univ. of Wyoming, 63 pp.

USDA Forest Service. 1996. Record of Decision for Amendment of Forest Plans, Arizona and New Mexico. June 5, 1996.



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REVIEW
of
The Wildfire Risk Assessment
Prepared by Steven Bassett of The Nature Conservancy
For the Greater Santa Fe Fireshed Coalition

by
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Prepared at the request of
The Santa Fe Forest Coalition

January 7, 2019

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EXECUTIVE SUMMARY

- i. The Nature Conservancy (TNC) recently prepared a Wildfire Risk Assessment for the Greater Santa Fe Fireshed Coalition² as “a useful tool for planning wildfire risk reduction treatments.”
- ii. This report presents a review of the TNC Wildfire Risk Assessment by Paul Davis of EnviroLogic, Inc.
- iii. EnviroLogic, Inc. is supportive of the Greater Santa Fe Fireshed Coalition’s effort to use wildfire risk in analyzing the costs and benefits of any proposed wildfire risk reduction treatments.
- iv. The first step in using wildfire risk to analyze wildfire risk reduction treatments is to know the current risk of a wildfire. The current risk could be significant enough for us to consider wildfire risk reduction treatments, or the risk could be acceptable without any consideration of wildfire risk reduction treatments.
- v. Wildfire risk, like all risk, is the combination of probability and consequence. Wildfire *risk* is the combination of the *likelihood* of a wildfire occurring coupled with the *consequences* of a wildfire.
- vi. The cost side of the cost/benefit analysis is the costs associated with wildfire risk reduction treatments, such as the cost of forest thinning, the cost of performing prescribed burns, etc.
- vii. The benefit of these wildfire risk reduction treatments should be the elimination of, or at least a reduction in, the risk of a wildfire.
- viii. Decisions could then be made about whether, how, and where to spend resources based on the current risk of a wildfire in the Santa Fe Fireshed combined with the costs of wildfire risk reduction treatments, and their expected reduction in wildfire risk.
- ix. Unfortunately, The Nature Conservancy’s Wildfire Risk Assessment for the Greater Santa Fe Fireshed (TNC Risk Assessment) cannot be used to support decisions concerning wildfire risk reduction treatments because:
 - a. The TNC Risk Assessment did not estimate the current risk of a wildfire occurring in the Santa Fe Fireshed. Specifically, TNC did not estimate the chance of a wildfire occurring within the greater Santa Fe Fireshed and only calculated the consequences of a wildfire (actually the consequences of 640,000 wildfires). The public is left not knowing the current risk of a wildfire and whether that risk is acceptable or not. Without knowing the current risk of a wildfire, the value of reducing the wildfire risk is not only unknown but unknowable.
 - b. The costs of the consequences (homes burned, infrastructure destroyed, etc.) of a wildfire are not provided.
 - c. The costs and benefits (effectiveness) of wildfire risk reduction treatments (thinning, burning, etc.) are not presented.

² Wildfire Risk Assessment, Version 1.0 - March 22, 2018. Prepared for The Greater Santa Fe Fireshed Coalition by Steven Bassett, The Nature Conservancy.

INTRODUCTION AND BACKGROUND

- i. The Nature Conservancy (TNC) prepared a Wildfire Risk Assessment of the Santa Fe Fireshed for the Greater Santa Fe Fireshed Coalition and in doing so stated:
“This assessment can be a useful tool for planning wildfire risk reduction treatments.”
- ii. This paper evaluates the TNC Risk Assessment and the potential use of this risk assessment in planning risk reduction treatments.
- iii. This paper does not address other critical aspects of the TNC Risk Assessment, including TNC’s presentation of the history and effects of wildfires, TNC’s decision to ignore the risk of uncontrolled “controlled” burns and backfires, the choice of “Valued Assets,” and the use and assumptions associated with the fire behavior model. These aspects of the TNC Risk Assessment deserve scrutiny but are not reviewed in this paper.

WILDFIRE RISK-BASED DECISION ANALYSIS FOR FOREST MANAGEMENT

- iv. Bruce Hill, a spokesman for the Santa Fe National Forest, stated that the value of saving a community from a catastrophic wildfire is “priceless.”³
- v. Mr. Hill’s statement reveals an emotional reaction to wildfire as well as the U.S. Forest Service’s traditional approach to wildfire management.
- vi. The taxpayers are expected to pay any amount of money to “fight” wildfires when they occur and to reduce the risk of wildfires through wildfire risk reduction treatments (i.e., forest thinning, controlled burns, etc.) — all without regard to the current risks posed by wildfire, the cost of wildfire risk reduction treatments, or the effectiveness of wildfire risk reduction treatments.
- vii. A rational approach would be to:
 - a. Assess the current risk of a wildfire, including the value of the assets that are likely to be damaged by a potential wildfire (i.e., cost of homes burned, etc.).
 - b. Decide if the current risk is acceptable or not. If the current risk is acceptable, then no further action is warranted.
 - c. If the risk is unacceptable, do the following:
 - 1) List the available wildfire risk reduction treatments.
 - 2) For each wildfire risk reduction treatment, determine:
 - The cost of the treatment
 - The potential reduction in wildfire risk resulting from the treatment
 - The potential harm to the forest associated with the wildfire risk reduction treatment

³ The Santa Fe New Mexican: http://www.santafenewmexican.com/news/local_news/the-price-of-combating-fires/article_23c43da8-0359-5948-8e59-6d7f553b1a9d.html

- d. Combine the attributes of each potential wildfire risk reduction treatment to allow a comparison between the costs and benefits of:
 - 1) Doing nothing if the costs are too high and the benefits too low for all of the potential wildfire risk reduction treatments, or
 - 2) Employing the wildfire risk reduction treatment that has the least cost associated with the highest benefit.

TNC RISK ASSESSMENT: A SUMMARY

- viii. Recently, the Greater Santa Fe Fireshed Coalition, which includes the U.S. Forest Service, took the first step in the direction of rational forest management by funding The Nature Conservancy to produce a Wildfire Risk Assessment for the Santa Fe Fireshed⁴.
- ix. TNC claims that their Wildfire Risk Assessment “can be a useful tool for planning wildfire risk reduction treatments.”
- x. The TNC risk assessment:
 - a. Simulated 640,000 wildfires (10,000 fires for each of 64 weather conditions) as occurring randomly across the Santa Fe Fireshed.
 - b. Used the Forest Service fire simulation model FConstMTT to estimate the spread and intensity of each of the 640,000 fires, assuming each fire burns for 72 hours (no fire fighting is assumed).
 - c. Calculated the relative chance each pixel (small square area within the fireshed) would be burned at a given intensity by one or more of the 640,000 simulated fires.
 - d. Identified Valued Resources and Assets (VRAs) that could be damaged by these spreading wildfires. Valued Resources and Assets included tangible assets like private land, structures, roads, trails, etc., and more abstract concepts like flooding potential, which was calculated by combining landscape features with assets that could be damaged. For example, a VRA could be a stand of trees that if burned would contribute to a flood that could damage downstream structures.
 - e. Assigned each VRA a subjective index ranging from zero to one, where zero was no value and a value of one represented the highest value.
 - f. Subjectively defined “response functions” that prescribe how the value of a given VRA decreases⁵ for each fire intensity. For example, a private home could be assigned an initial value of 1.0, with an intense wildfire burning the home down, resulting in a new value of zero.
 - g. Produced maps of net value change resulting from hypothetical fires.

⁴ Wildfire Risk Assessment, Version 1.0 - March 22, 2018, Prepared for The Greater Santa Fe Fireshed Coalition, by Steven Bassett, The Nature Conservancy.

⁵ There are a few cases where low-intensity fires increase the value of a VRA.

h. Produced “risk” maps that assign a net value change multiplied by the “burn probability,” where probability is the relative probability that a given pixel will burn based on 640,000 simulated fires that start at random locations across the fireshed.

THE USE OF THE TNC RISK ASSESSMENT IN RISK-BASED DECISION ANALYSIS

- xi. The third section of this paper outlined how wildfire risk can be a “useful tool for planning wildfire risk reduction treatments.”
- xii. The question now is: does the TNC Wildfire Risk Assessment provide the information needed to support risk-based decision analysis?
- xiii. The short answer is no. Why not?
- xiv. First, we need to know today’s risk of a wildfire occurring in the Santa Fe Fireshed before making any decisions regarding wildfire reduction treatments. The TNC Risk Assessment failed to provide the current risk of a wildfire. The TNC Risk Assessment estimated the consequences of 640,000 wildfires but never addressed the likelihood (probability) that a wildfire would occur in the Santa Fe Fireshed. Therefore a key component of risk (probability times consequence) is missing.
- xv. The probability of wildfire could have been calculated for a given stand in a given time frame from historic records of wildfires along with consideration of the potential impacts of climate change. This information can be found, for example, in Parks et al. 2015 and Baker 2015.
- xvi. The TNC Risk Assessment cannot be used for any purpose in the absence of the probability of a wildfire occurring in the Santa Fe Fireshed.**
- xvii. The TNC Risk Assessment does address the potential consequences of a wildfire but fails to address: 1) the likelihood that such consequences will be realized, and 2) the costs associated with these consequences.
- xviii. The TNC Risk Assessment treats consequences as damage to Valued Resources and Assets (VRAs).
- xix. As stated above, VRAs include directly affected tangible assets like private homes. The TNC Risk Assessment assumes that any home within the path of one of their simulated fires will be destroyed.
- xx. VRAs also include indirectly affected tangible assets. For example, a home destroyed by a flood that was caused by a wildfire followed by significant precipitation would be an indirectly affected tangible asset. In calculating the damage to indirectly affected tangible assets, the TNC Risk Assessment assumes that, depending on topography and elevation and without regard to actual or predicted precipitation events, floods will follow wildfires and will destroy structures in their path. However, not every wildfire destroys homes and not every wildfire is followed by flooding that destroys homes. The recent 416 wildfire near Durango burned over 50,000 acres and did not destroy a single

home in its path. Flooding did follow the fire but resulted in minimal property damage. So the reality is that some fires burn homes and some don't; sometimes flooding does follow wildfires and sometimes it does not. Therefore a defensible approach would have been for the TNC Risk Assessment to quantify the likelihood of damage to the VRAs.

xxi. The TNC Risk Assessment cannot be used as a “tool for planning wildfire risk reduction treatments” without estimating how likely it is that VRAs will be damaged in the event of a wildfire.

xxii. The TNC Risk Assessment failed to estimate the cost of the damage to its Valued Resources and Assets (VRAs). The TNC Risk Assessment provides a long list of VRAs that could be damaged as a result of a wildfire. But instead of providing costs associated with the VRAs and costs of damages to VRAs, the TNC Risk Assessment employs a subjective index of 0-1 for each VRA with 1 being the highest value and 0 the lowest.

xxiii. However, real dollars will be spent on wildfire risk reduction treatments. Taxpayers will not spend subjective indices from 0-1. A simple example: say a wildfire is likely to burn down a home costing \$200,000. And assume that there is some risk reduction treatment that completely eliminates the chance of a wildfire. Obviously, the cost of the risk reduction treatment must be less than \$200,000 to be worthwhile. But the TNC Risk Assessment does not provide us with the cost of the homes potentially burned by a wildfire or the cost of any VRA, instead providing only a subjective index of 0-1. Therefore no comparison of costs and benefits is possible.

xxiv. The TNC Risk Assessment cannot be used as a “tool for planning wildfire risk reduction treatments” without providing the costs of the potential damage to VRAs resulting from a wildfire.

xxv. The benefit of wildfire reduction treatments should be the elimination of wildfire risk or at least the reduction of wildfire risk.

xxvi. The TNC Risk Assessment fails to provide a list of possible wildfire risk reduction treatments and the reduction of wildfire risk resulting from the implementation of each treatment.

xxvii. The TNC Risk Assessment cannot be used as a “tool for planning wildfire risk reduction treatments” without providing a list of possible wildfire risk reduction treatments and the reduction of wildfire risk resulting from the implementation of each treatment.

SUMMARY

xxviii. The TNC Wildfire Risk Assessment provides a useful first step toward rational planning of wildfire risk reduction treatments. However, the TNC Wildfire Risk Assessment is not a “tool for planning wildfire risk reduction treatments” without knowing:

- a. The current risk of a wildfire,
- b. the probabilities that each VRA will be damaged,
- c. the costs of damage to each VRA, and
- d. the reduction in risk resulting from wildfire risk reduction treatments.

REFERENCES

Baker, W. L., Veblen, T. T., & Sheriff, R. L. (2006). Fire, fuels and restoration of ponderosa pine-Douglas fir in Rocky Mountains USA. *J. Biogeogr.*

Baker, W. L. (2015). Are High-Severity Fires Burning at Much Higher Rates Recently Than Historically in Dry-Forest Landscapes of the Western USA? *Plus One*, September 9, 2015. doi:10.1371/journal.pone.0136147

Parks, S. A., Miller, C., Parisien, M. A., Holsinger, L. M., Dabrowski, S. Z., & Abatzoglou, J. (2015). Wildland fire deficit and surplus in the western United States, 1984–2012. *Ecosphere*, 6(12) Article 275, December.

Rhodes, J. J., & Baker, W. L. (2008). Fire probability, fuel treatment effectiveness and ecological tradeoffs. *The Open Forest Science Journal*, 1, 1-7.

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Help Us Save the Santa Fe National Forest!

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December 21, 2018

Mr. James Melonas, Supervisor
USDA Forest Service
Santa Fe National Forest
11 Forest Lane
Santa Fe, New Mexico 87508

re: Southwestern white pine and slash piles in the Hyde Park project

Dear James:

There are two issues of pressing concern in the on-going Hyde Park project that require your attention.

First, thousands of Southwestern white pine (SWWP) have been cut on the adjacent hillside of Black Canyon (see attached photos). In 2009 the Santa Fe Municipal Watershed 20 Year Protection Plan recommended that this self-sustaining SWWP population be protected during on-going maintenance activities. To quote from the Protection Plan p. 20:

Continue to protect Southwestern white pine. During planning of restoration treatments a concern was expressed for the fate of Southwestern white pines in the watershed, because populations have suffered in the West in recent years due to the exotic white pine blister rust. White pines in the watershed have been reproducing successfully in spite of the threat of blister rust and thus the Santa Fe Watershed has been identified as a possible sub-regional refugia for this tree species. The protection of southwestern white pines should continue to be an objective throughout long-term prescribed burning maintenance.

The SWWP refugia extends to the Hyde Park project. At the northern limits of its distribution, this SWWP population may be exhibiting unique resistance to white pine blister rust. Removing individuals that are genetically resistant before it can be determined their value in countering the disease would be a significant loss to regional biodiversity. It's also unlikely that the standards of the SFNF plan are being met. The plan clearly states (p. 70) that a minimum of 120 SWWP remain per acre following clearing and burning.

Unfortunately, the Forest Service has a long history of ignoring evolutionary processes such as natural selection. In its formative years the agency encouraged land owners along the eastern seaboard to cut down all American chestnuts before they were killed by an exotic blight. As a result genetically resistant trees that may have allowed the species to survive and adapt were lost.¹ A more recent example is salvage logging of beetle killed white bark pine in the northern Rockies. In this case, resistance and adaptation is threatened by both clearing dead and surviving *Pinus albicaulis* and large-scale replanting of non-resistant trees.²

Second, there are hundreds of large closely spaced slash piles on the steep hillsides above Black Canyon. These piles are built for maximum ventilation; when burned the organic matter in the soil beneath will be lost along with the microbial community. The Record of Decision for the Santa Fe Municipal Watershed Project requires that slash piles generally be no more than eight feet in diameter and six feet high to address this concern. The Hyde Park slash piles are far larger (see attached photo). There is no justification in the project record for abandoning standard size limitations designed to maintain soil productivity.³

In closing we want to commend you and your staff for preserving the old growth aspen in Black Canyon. As you know nearly 70 species of breeding birds have

¹ See Kelly, A.R. *Chestnut surviving blight*. Science 40 (1924): 292-93

² See Six, D., C. Vergobbi and M. Cutter. 2018. *Are survivors different? Genetic-based selection of trees by mountain pine beetle during climate change-driven outbreaks in a high-elevation pine forest*. Frontiers in Plant Science

³ The Hyde Park project calls for keeping slash piles away from intermittent and perennial streams and Mexican spotted owl PACs but fails to discuss or evaluate size limitations found in the more detailed Santa Fe watershed EIS.

been documented here in recent years indicating the importance of this habitat.
Please let us know if you have questions and thank you for your prompt attention.

Respectfully,

/Sam Hitt/

Sam Hitt, President
Santa Fe Forest Coalition
P.O. Box 1943,
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sam@wildwatershed.org

cc:

Mr. Sanford Hurlocker, District Ranger
Congressman Ben Ray Lujan
Senator Martin Heinrich
Senator Tom Udall



July 10, 2019

Mr. James Melonas, Forest Supervisor
USDA Forest Service
Santa Fe National Forest
11 Forest Lane
Santa Fe, New Mexico 87508

delivery via email: jmelonas@fs.fed.us , comments-southwestern-santafe@fs.fed.us

re: Comments on Santa Fe Mountains Landscape Resiliency Project Scoping Report

Dear James:

The following are comments to the Scoping Report issued June 10, 2019 for the Santa Fe Mountains Landscape Resiliency Project (Project) located on the Espanola and Pecos/Las Vegas Ranger Districts, Santa Fe National Forest (SFNF). Please accept these comments on behalf of the Santa Fe Forest Coalition, Wild Watershed and the nearly 500 citizens who signed the attached online and paper petitions requesting that all activities halt in the 107,000 acre Greater Santa Fe Fireshed until an Environmental Impact Statement (EIS) is prepared. The 30-day comments period ends July 10, 2019 making these comments timely.

The Santa Fe Forest Coalition is an all volunteer nonprofit that educates the public, the media and policy makers on critical issues concerning forest and wildlife preservation in New Mexico. Member groups include Wild Watershed, Once a Forest, Multiple Chemical Sensitivities Taskforce, La Cueva Guardians, Tree Huggers Santa Fe and others. Wild Watershed is an all volunteer organization focused on aquatic conservation and wilderness preservation.

These comments are constrained by the minimal 30-day comment period. The SFNF has offered no justification for limiting public involvement in scoping to such a degree. Due to lack of time important issues may have been overlooked and the full implication of others unrealized. Therefore, these comments are filed under protest.

1. SIGNIFIANT IMPACTS TO INVENTORIED ROADLESS AREAS REQUIRE DISCLOSURE IN AN ENVIRONMENTAL IMPACT STATEMENT

As can be seen from the following history, the SFNF has consistently failed to comply with the National Environmental Policy Act's (NEPA) requirement to disclose and analyze the cumulative impacts of repeated clearing and annual burning over vast stretches of inventoried roadless areas (IRAs) adjacent to the Pecos Wilderness above Santa Fe. William Odum (1982) succinctly described the resulting environmental degradation from cumulative effects as “the tyranny of small decisions.”

In 2001 the SFNF prepared an environmental impact statement (EIS) to analyze the impacts of what turned out to be endless clearing and burning of forests in the Santa Fe Municipal Watershed. It was hardly mentioned during the protracted analysis for this project that nearly all 15,000 acres (6720 acres within Pecos Wilderness) were national forest inventoried roadless lands.

In 2004, the Hyde Park Wildland Urban Interface Project proposed to clear and burn nearly 2000 acres of inventoried roadless forests to the north of the watershed. That project was successfully appealed twice for failure to consider impacts to IRAs. Hyde Park was resurrected soon after President Trump assumed office. In March of 2018 it was approved using a categorical exclusion for qualifying projects under an amendment to the 2014 Farm Bill. Within weeks another project impacting IRAs, the Pacheco Canyon Forest Resiliency Project, was also approved using the same expedited decision making process.

Despite repeated promises by the Washington office that the Forest Service would comply with all environmental laws, including NEPA, attorneys for the Forest Service argued in *Wild Watershed v. Hurlocker* that Congress had created a “statutory exemption” from NEPA and therefore disclosure and analysis of cumulative impacts was not required.

The Project discussed here, consistent with this history, failed during scoping to even identify protection of IRAs as a potential issue. No information was presented to the public concerning the delineation, location and potential impact to IRAs. A SFNF official said in an email “. . . IRAs are not a layer in the GIS data sets available on our webpage. I'm afraid I've come up empty-handed.” According to a former Forest Service planner, this is consistent with a longstanding practice of “data-free analysis and analysis-free decision-making” that has plagued the agency for decades (Fairbanks 2005).

This history reveals an institutional bias within the agency as well as a deep local antipathy to roadless area conservation. It is relevant, then, to review the long struggle to preserve roadless areas and wilderness. This review is intended not only to prompt a re-evaluation of the agency's

policy of denial and obstruction but also to honor those who have worked for decades to protect the well-springs of life found in untrammelled wild lands.

In particular, we pay homage to our friend and colleague Carol Johnson for her tireless efforts to preserve the Pecos Wilderness and the surrounding forests that will be impacted by this Project.

Review of Roadless Area Conservation

The U.S. Forest Service Roadless Rule prohibits timber harvest in IRAs with certain limited exceptions. 36 CFR § 294.13. If history is any indication, this Project will likely be approved based upon the following exception: “To maintain or restore the characteristics of ecosystem composition and structure, such as to reduce the risk of uncharacteristic wildfire effects, within the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period.”

Multiple lines of evidence suggests that dry mixed conifer and ponderosa pine forests such as those found in the Project area are shaped and characterized by periodic mixed-severity wildfires that include ecologically significant amounts of weather-driven, high-severity fire. It is well established that large, infrequent, and quite often severe natural disturbances shape and lend complex structure to historical landscapes, and thereby maintain the biological diversity (see Dr. DellaSala comments to the Project, pp. 6-9)

In 1964, Congress passed the Wilderness Act, creating the National Wilderness Preservation System. In addition to designating 9 million acres of National Forest System land as Wilderness, the Act directed the Secretary of Agriculture to complete a study of 34 administratively designated "primitive areas" and determine their suitability for Wilderness designation by September 2, 1974.

In 1971 the Forest Service expanded the scope of the review to include all roadless areas in the inventory and evaluation. This process was known as the Roadless Area Review and Evaluation (RARE). The Final Environmental Impact Statement (FEIS) for RARE was released in 1973. The FEIS identified 247 roadless areas to be studied further for possible wilderness status.

The National Forest Management Act of 1976 (NFMA) replaced that evaluation process in place at the time with the requirement for an integrated Land and Resource Management Plan (LRMP) for each forest and grassland. By June of 1977, concerns were expressed that the NFMA land management planning process would be too slow to allow timely completion of review of the 247 study areas identified in RARE. Concerns were also raised that some areas might have been overlooked, and that RARE did not adequately inventory the National Grasslands and the Eastern National Forests.

In response to these concerns, the Secretary of Agriculture initiated a nationwide administrative study of roadless areas referred to as RARE II. The FEIS for RARE II was released in January of 1979.

In June, 1979 the State of California initiated a lawsuit (*California v. Block*) challenging a RARE II decision to designate certain roadless areas in California as non-wilderness. In June of 1980 the U.S District Court ruled that the Rare II FEIS did not comply with NEPA. The Ninth Circuit Court of Appeals affirmed this decision and identified the following deficiencies:

- 1) failure to identify distinguishing wilderness characteristics of each roadless area; 2) failure to adequately assess the wilderness value of each area and to evaluate the impact of non-wilderness designation upon each area's wilderness characteristics and value; 3) failure to consider the effect of non-wilderness classification upon future wilderness opportunities; and 4) failure to weigh the economic benefit attributable to development in each area against the wilderness loss each area will suffer from development.

The decision was largely based on the Court's interpretation that NFMA regulations precluded further consideration of wilderness features in assessing environmental consequences of development projects in areas not recommended for wilderness. Because of this lack of discretion, the Court concluded that "[t]he critical decision to commit these areas for non-wilderness uses, at least for the next ten to fifteen years is irreversible and irretrievable."

Following the Circuit Court's decision, the Department of Agriculture revised the NFMA regulations regarding evaluation of roadless areas in forest planning (36 CFR § 219.17 [1982]). These changes included: 1) establishment of new forest planning procedures for evaluating roadless lands for recommendation as wilderness; and 2) removal of language that the Ninth Circuit Court interpreted to mean the Forest Service was foreclosed from considering the roadless character of a roadless area if specific projects were proposed and evaluated in areas allocated to non-wilderness management.

The 1982 NFMA regulations allowed adequate discretion over development of Inventoried Roadless Areas, after approval of forest plans, by making non-wilderness allocation of roadless lands not a "critical decision" or an "irreversible and irretrievable" commitment of resources to development.

This legal premise has since been affirmed by the Ninth Circuit in the case *City of Tenakee Springs v. Block*, 778 F.2d 1402 (9th Cir.1985), where the Court found that non-wilderness multiple-use management prescriptions on the Tongass National Forest Plan were permissive rather than a mandate or commitment to development. The concurring opinion also agreed that NEPA documents for projects proposed under the forest plan in roadless areas assigned to a non-wilderness management prescription must examine the issue of whether to treat, not just how to treat, such areas in order to comply with the Wilderness Act.

In 1994 the 9th Circuit Court of Appeals further addressed the need to analyze the effects of proposed treatment areas to roadless areas. In *Smith v. USFS*, the Court reaffirmed the legal requirement to consider a no-action alternative when proposing such treatments, citing *Idaho Conservation*, 956 F.2d at 1515, in order to “preserve the possibility that the area might someday be designated as wilderness.”

The 9th Circuit again reaffirmed the significance of development in roadless areas in *Lands Council v. Martin* (2008), where the Court states:

In *Smith*, 33 F.3d at 1078-79, we held that there are at least two separate reasons why logging in roadless areas is environmentally significant, so that its environmental consequences must be considered. First, roadless areas have certain attributes that must be analyzed. Those attributes, such as water resources, soils, wildlife habitat, and recreation opportunities, possess independent environmental significance. Second, roadless areas are significant because of their potential for designation as wilderness areas under the Wilderness Act of 1964, 16 U.S.C. §§ 1131-1136. *Lands Council*, 479 F.3d at 640; *Smith*, 33 F.3d at 1078-79.

According to the Forest Service analysis of these legal precedents, dealing with their continuing obligations under the Wilderness Act:

Based on court history and past direction from the Chief, projects within roadless areas must analyze the environmental consequences, including irreversible and irretrievable commitment of resources on roadless area attributes, and the effects for potential designation as wilderness under the Wilderness Act of 1964.... The purpose of the analysis on the roadless resource is to disclose potential effects to roadless and wilderness attributes and determine if, or to what extent it might affect future consideration for wilderness recommendations.

This analysis focuses on the potential effects of project activities on wilderness characteristics as defined in the Forest Service Handbook (FSH) 1909.12 (72.1). These wilderness characteristics include the following:

- 1) Natural – The extent to which long-term ecological processes are intact and operating;
- 2) Undeveloped – The degree to which the impacts documented in natural integrity are apparent to most visitors;
- 3) Outstanding opportunities for solitude or primitive unconfined recreation – Solitude is a personal, subjective value defined as the isolation from sights, sounds, and presence of others and from developments and evidence of humans. Primitive recreation is characterized by meeting nature on its own terms, without comfort and convenience of facilities;
- 4) Special features and values – Unique ecological, geographical, scenic, and historical features of an area;
- 5) Manageability – The ability to manage an area for wilderness consideration and maintain wilderness attributes.

Concerning the potential for cumulative effects of proposed treatments within an IRA, the Forest Service has described the following steps:

- 1) Identify the cumulative effects boundary in space and in time; 2) Describe the cumulative effects boundary – this will be the roadless area expanse. Describe what factors this is based on; 3) Describe the temporal boundary – this will be how long effects of the action will occur on the landscape. Describe what factors this is based on; and 4) Describe the past actions and their effects on current conditions. Describe what past actions were considered and summarize how they affected the five wilderness attributes described above. If there are comments that other past actions should have been considered discuss why they were or were not; 5) Contrast the effects of proposed actions with past actions. Describe how past actions were developed in relation to the roadless resource and how this proposal considered the roadless resource in its design, e.g. summarize the past actions that occurred, whether or not the actions occurred before or after the forest plan was established, whether or not those past actions were designed to minimize effects on the roadless resources (and if so whether or not they were effective) and how this proposed action contrast with those past actions; 6) Describe the effects of ongoing and reasonably foreseeable actions. Identify what actions were considered. If there are comments that others should have been considered discuss why they were or were not. Describe how these actions could affect the five wilderness attributes; 7) Describe the combined effects from past, proposed, ongoing, and reasonably foreseeable future actions. Describe the cumulative effects of the proposed action, in addition to the past, present and reasonably foreseeable actions on the five wilderness attributes. Describe whether or not there would be irreversible or irretrievable commitment of resources.

National forest roadless lands are heralded for their conservation values. Those values are described at length in the preamble of the Roadless Area Conservation Rule (RACR) and in the Final Environmental Impact Statement (FEIS) for the RACR. They include: high quality or undisturbed soil, water, and air; sources of public drinking water; diverse plant and animal communities; habitat for threatened, endangered, proposed, candidate, and sensitive species and for those species dependent on large, undisturbed areas of land; primitive, semi-primitive non-motorized, and semi-primitive motorized classes of dispersed recreation; reference landscapes; natural appearing landscapes with high scenic quality; traditional cultural properties and sacred sites; and other locally identified unique characteristics (e.g., uncommon geological formations, unique wetland complexes, exceptional hunting and fishing opportunities).

Roadless lands are also responsible for higher quality water and watersheds. Anderson et al. 2012 assessed the relationship of watershed condition and land management status, and found a strong spatial association between watershed health and protective designations. DellaSalla et al. 2011 found that undeveloped and roadless watersheds are important for supplying downstream users with high-quality drinking water, and that developing those watersheds comes at significant costs

associated with declining water quality and availability. Protecting and connecting undeveloped areas is also an important action agencies can take to enhance climate change adaptation.

NEPA requires federal agencies' environmental analysis to consider "any adverse environmental effects which cannot be avoided." 42 U.S.C. § 4332(2)(C)(ii). When several actions may have cumulative or synergistic environmental impacts, Forest Service must consider these actions together and prepare a more comprehensive environmental analysis. 40 C.F.R. § 1508.8(b). Cumulative impacts are "the impact[s] on the environment which result 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 understands such actions." 40 C.F.R. § 1508.7.

This Project is part of a much larger and more ambitious program to "change forest conditions" on the 107,000 acre Greater Santa Fe Fireshed, a large proportion of which is within IRAs. These actions in aggregate will likely cause significant adverse direct, indirect and cumulative impacts on the human environment—including but not limited to significant health effects for the surrounding community from regular and repetitive prescribed burns, as well as to wildlife communities that are commonly associated with dense forests like those the Project is intended to substantially alter, and on the wilderness characteristics, whose use and enjoyment is appreciated by many who value untrammeled natural amenities found in the roadless areas.

It is also likely that there are substantial "unroaded" areas that could become inventoried roadless lands and recommended for wilderness designation in the future. These lands play an important ecological role in ensuring the persistence of species, providing connectivity and ensuring watershed functionality.

Maintaining and enhancing the roadless character of these lands will contribute to the achievement of the substantive provisions in sections 219.8, 219.9, and 219.10 of the 2012 forest planning rule. The improvement of 94 miles of road may have significant damaging impacts on the natural values and scenic integrity of these unroaded lands by increasing access, altering water flows and reducing wildlife security.

Therefore, the Project planning team must identify, delineate and quantify unroaded lands and take the required hard look to determine if planned clearing and burning activities may have significant impacts. We strongly oppose any developments in unroaded portions of the Project area until potential impacts can be comprehensively disclosed and analyzed.

In summary, the cumulative effects of clearing and burning thousands of acres over many decades in unroaded, lightly-roaded and IRAs eligible for wilderness must be analyzed and disclosed in an EIS.

2. PROJECT PURPOSE AND NEED ARE INCONSISTENT WITH HFRA'S REQUIREMENT TO RETAIN LARGE AND OLD TREES AND NFMA'S CONSISTENCY STANDARD

Projects authorized under Section 602 of the Healthy Forest Restoration Act (HFRA) may only be implemented “in a manner that maximizes the retention of old growth and large trees, as appropriate for the forest type, to the extent that the trees promote stands that are resilient to insects and disease.” 16 U.S.C. § 6591a(e).

In addition, the HFRA requires that the Forest Service: “fully maintain, or contribute toward the restoration of, the structure and composition of old growth stands according to the pre-fire suppression old growth conditions characteristic of the forest type, taking into account the contribution of the stand to landscape fire adaptation and watershed health, and retaining the large trees contributing to old growth structure.” <https://www.fs.fed.us/projects/hfi/field-guide/web/page11.php>.

The National Forest Management Act (NFMA) also imposes on the Forest Service a duty to ensure that any specific project in the forest complies with the “land resource management plan of the entire forest,” in this case the SFNF Plan. 16 U.S.C § 1604(i).

The SFNF Plan’s old growth standards begin with an admission of uncertainty, followed by a commitment to learn and identify old growth in all project planning:

Old growth is not well understood in the Southwest. Consequently, as knowledge is gained the characteristics and inherent values of old growth stands will be better defined. Site specific identification of old growth will occur during ecosystem area analysis or project planning. (SFNF Plan p. 67)

Uncertainty prompts our concerns. First, why is only the bare minimum of 20 percent of the project area—the floor established by the SFNF Plan—being managed for old growth? Managing for minimums gives no room for error and errors are inevitable given the acknowledged uncertainty and unprecedented scale and intensity of proposed activities. How is managing for minimums consistent with the SFNF Plan that requires projects to “strive to create or sustain as much old growth compositional, structural, and functional flow as possible over time at multiple-area scales?”

It is unclear how old growth can be sustained as required by the SFNF Plan when as much as 30 percent of remainder trees left after aggressive clearing die in prescribed fires; more from wind throw in newly opened stands. Also, Ips beetle populations increase dramatically in untreated slash during dry conditions often overwhelming old growth ponderosa pines.

Second, how does managing for minimum old growth, together with the admitted lack of understanding, “maximize the retention of old growth and large trees” required by HFRA? Third,

how does discretionary cutting of trees up to 24 inches dbh “maximize the retention of old growth?”

Fourth, how will project-level knowledge be gained to better define “the characteristics and inherent values of old growth stands?” For example, how have the SFNF Plan’s parameters for determining old growth been refined for this Project? These include: number of live trees in main canopy; variation in tree diameters; dead trees (standing snags and downed logs); tree decadence; number of tree canopies; total basal area; and, total percent canopy cover. Five, will project-level monitoring be done to ensure compliance with the HFRA old growth retention standard?

3. THE SCOPING DOCUMENT LACKS THE NECESSARY SITE-SPECIFIC DETAIL TO COMPLY WITH NEPA

The National Environmental Policy Act (NEPA) is our basic national charter for protection of the environment. 40 C.F.R. § 1500.1. In enacting NEPA, Congress recognized the “profound impact” of human activities, including “resource exploitation,” on the environment and declared a national policy “to create and maintain conditions under which man and nature can exist in productive harmony.” 42 U.S.C. § 4331(a).

The statute has two fundamental two goals: (1) to ensure that the agency will have detailed information on significant environmental impacts when it makes decisions; and (2) to guarantee that this information will be available to a larger audience. *Envtl. Prot. Info. Ctr. v. Blackwell*, 389 F. Supp. 2d 1174, 1184 (N.D. Cal. 2004) (quoting *Neighbors of Cuddy Mt. v. Alexander*, 303 F.3d 1059, 1063 (9th Cir. 2002)).

Analyzing and disclosing site-specific impacts is critical to achieve these goals because when, where and how activities occur on a landscape strongly determines the nature of the impact. Location data is especially critical to the site-specific analysis NEPA requires. *New Mexico ex rel Richardson*, 565 F.3d at 706 and 707.

NEPA further mandates that the agency provide the public “the underlying environmental data” from which the Forest Service develop[ed] its opinions and arrive[d] at its decisions.” *WildEarth Guardians v. Mont. Snowmobile Ass’n*, 790 F.3d 920, 925 (9th Cir. 2015).

In this case, the SFNF failed to disclose site-specific impacts and failed to provide the public with any underlying data supporting the Project’s purpose and need. In particular, the scoping document does not disclose when, where, how much, what sequence or the specific location of tree clearing, burning and road improvements. Nor does it provide detailed disclosure of the necessary mitigation measures designed to lessen the impacts of Project implementation.

Instead, in seeking flexibility to respond to changing conditions, the SFNF apparently intends to postpone site-specific project design and analysis until **after** the agency decision is made. This upends NEPA's central purpose that agencies look before they leap. More importantly, keeping essential details of Project implementation under wraps until after the close of the comment period prevents the public from being involved "to the fullest extent possible . . . in decisions which affect the quality of the human environment." 40 C.F.R. § 1500.2(d).

As noted earlier, no information was presented to the public concerning the delineation, location and potential impact to IRAs. The impacts of tree clearing and burning projects in Hyde Park, Pacheco Canyon and the Santa Fe Municipal Watershed were not revealed despite these on-going projects being adjacent to or enclosed within the Project area. Nor were reasonably foreseeable future actions within the 107,000 acre Greater Santa Fe Fireshed disclosed. Without this information, the public is left in the dark concerning the cumulative impacts of a host of environmentally significant interconnected issues.

The Project proposes to upgrade 94 miles little used roads that will likely significantly impact soils, water quality, unfragmented habitat blocks, critical habitats, and fire risk. This is a significant issue for environmental analysis, yet many details are lacking. Portions of the project area feature steep slopes where improved roads and ground-based tree clearing activities may permanently impair soil productivity even if their use is temporary (Gucinski et al. 2001). Road-related soil erosion is a chronic source of sediment that can limit water quality and affect habitat for riparian-dependent species.

Road-stream crossings have high potential to adversely impact water quality (Endicott 2008) but the location of crossings is not disclosed. Road construction, tree clearing and burning may combine to increase overland water flow and runoff by removing vegetation and altering physical and chemical properties of soil, which can permanently alter watershed function (Elliot 2010 and Robichaud et al. 2010).

The scoping document does not disclose the presence of unauthorized roads and trails that may be causing significant resource damage. Simply blocking entrances along other measures is often ineffective at preventing longstanding unauthorized use or addressing resource concerns. This is a significant issue that requires detailed disclosure of the extent, location and impacts. The lack of specificity precludes our ability to provide meaningful comments or determine the efficacy of the mitigation measures.

The extent of unauthorized roads should have been informed by the SFNF forest-wide Travel Analysis Report (TAR) generated to support compliance with Subpart A of the Travel Management Rule, or by a project specific TAR. Subpart A also directs the agency to "identify the roads on lands under Forest Service jurisdiction that are no longer needed," and therefore should be closed or decommissioned. A project specific analysis must evaluate all unneeded roads in the Project area for closure or decommissioning.

4. PROTECTION OF THE UNIQUE POPULATION OF SWWP IS A SIGNIFICANT ISSUE THAT WAS NOT IDENTIFIED IN THE SCOPING DOCUMENT

In 2009 the Santa Fe Municipal Watershed 20 Year Protection Plan recommended that a self-sustaining population of Southwestern White Pine (SWWP) be protected during on-going maintenance activities. To quote from the Protection Plan:

During planning of restoration treatments a concern was expressed for the fate of Southwestern white pines in the watershed, because populations have suffered in the West in recent years due to the exotic white pine blister rust. White pines in the watershed have been reproducing successfully in spite of the threat of blister rust and thus the Santa Fe Watershed has been identified as a possible sub-regional refugia for this tree species. The protection of southwestern white pines should continue to be an objective throughout long-term prescribed burning maintenance. (p. 20)

The SWWP refugia mentioned in this plan extends into the Project area. At the northern limits of its distribution, SWWP may be exhibiting unique resistance to white pine blister rust. Removing individuals that are genetically resistant before it can be determined their value in countering the disease would be a significant loss to regional biodiversity.

Also, this Project must be consistent with the SFNF Plan's reforestation standards that require a minimum of 120 SWWP remain per acre following clearing and burning (replacement page 69a).

Unfortunately, the Forest Service has a long history of ignoring evolutionary processes such as natural selection. In its formative years the agency encouraged land owners along the eastern seaboard to cut down all American chestnuts before they were killed by an exotic blight. As a result genetically resistant trees that may have allowed the species to survive and adapt were lost (Kelly 1924). A more recent example is salvage logging of beetle killed white bark pine in the northern Rockies (Six et al. 2018).

This vital issue was not mentioned during scoping despite the SFNF being alerted last December to the loss of thousands of SWWP during the initial clearing of the Hyde Park WUI project (see attached letter to Melonas Dec. 18, 2018).

5. A VIEWSHED CORRIDOR PLAN MUST BE PREPARED AND OTHER MITIGATION MEASURES TAKEN TO BE CONSISTENT WITH THE SFNF FOREST PLAN.

NFMA requires that any action taken at the project-specific level must comply with the national forest's Forest Plan. 16 U.S.C. Sec. 1604(i). Forest Service procedures also require consistency with the Forest Land and Resource Management Plan (FSM 1922.12 and FSH 1909.12).

The SFNF Plan for management area D (p. 113) requires that site-specific projects “develop Viewshed Corridor Plans as a part of project level planning for all vegetation management projects.” The Viewshed Corridor Plan must be developed in order to meet the visual quality objective of retention. Management area D (p. 116) also specifies that “fuel treatment methods with effects lasting no longer than one year are acceptable.” Management area L requires that “roads constructed will be closed immediately following the activity, scarified and reseeded.” The purpose and need of this Project did not reflect these SFNF Plan requirements.

Please ensure that these SFNF Plan consistency requirements are included in the EIS.

6. A RISK ASSESSMENT REVIEW SHOWED THAT A TNC RISK ASSESSMENT CANNOT BE USED TO SUPPORT WILDFIRE RISK REDUCTION TREATMENTS

A wildfire risk assessment of the Greater Santa Fe Fireshed produced by The Nature Conservancy (TNC) cannot be relied on by the SFNF to support this Project because it did not address the key issue of probability. The review is attached.

It also did not estimate the costs of potentially damaged resources or the cost associated with risk reduction treatments. Further, the TNC study did not address the likelihood that resources would be damaged in the event of a fire or address the effectiveness of risk reduction treatments. The review notes that the likelihood of a wildfire occurring could have been calculated from historic records of wildfire along with consideration of the potential impacts of climate change. But this did not occur.

7. QUESTIONS THAT WERE NOT ADDRESSED DURING PUBLIC MEETINGS

The two public meeting held in conjunction with Project scoping were dominated by SFNF presentations. Time for questions from public was limited. Public meetings where the public is mostly relegated to being an audience does not comport with a fundamental purpose of NEPA which mandates that “federal agencies **shall** to the fullest extent possible . . . encourage and facilitate public involvement in decisions which affect the quality of the human environment.” 40 C.F.R. § 1500.2(d). Therefore, we are exercising our public involvement rights during the scoping period by submitting the following substantive questions:

1. PURPOSE AND NEED AND NATIONAL ENVIRONMENTAL POLICY ACT

- * Why isn't protecting lives and property the primary purpose of this project? Making vulnerable homes fire-safe and clearing flammable vegetation immediately around structures are proven strategies.
- * Will measures to protect soils, water quality and wildlife habitat be mandatory and enforceable if they are proposed in an Environmental Assessment as opposed to an Environmental Impact Statement? Please explain the role of mitigation measures in each document.

2. ROADLESS FORESTS AND ROAD IMPROVEMENT

- * How many inventoried roadless areas exist in this area? Will they be proposed for Wilderness in the new forest plan? Why weren't project overlays of roadless areas presented in the scoping document or at public meetings?
- * Improving roads will increase human caused fires in this area. Does the SFNF have the capacity of responding to this increase?
- * How will road decommissioning "restore" unneeded roads? Shouldn't unneeded roads be obliterated to protect water quality and wildlife habitat and prevent the spread of invasive plants and access by arsonists and poachers?
- * How will ATVs be effectively restricted from newly improved roads?

3. CLIMATE DISRUPTION

- * Is the Forest Service allowed to discuss the role that human emissions play in creating a hotter and drier climate in the Southwest? If so, why is climate disruption so rarely addressed by the SFNF?
- * Is current climate science being used to analyze the impacts of clearing trees and annual burning?
- * Why isn't climate change mentioned as the primary driver of larger and more frequent high-severity fires, not the build up of fuels?
- * Why is the aim of this project to restore past forest structure instead of working with natural succession and evolutionary processes to help the forest adapt to a warmer and drier climate?

4. WILDLIFE AND ANCIENT FORESTS

- * How will wildlife corridors be maintained in areas cleared and annually burned? Have corridors been identified in the project area?
- * Will clearing and burning be restricted in the spring to protect breeding bird nests and other wildlife? If not, please explain why.
- * Old growth aspen is important breeding bird habitat. Clearing and burning conifers in the understory will cause significant harm. Will bird populations in old growth aspen habitat be monitored to determine impacts? If not, please explain why.

- * Why are the threats of high severity fire to Mexican spotted owl habitat highlighted while it's benefits and the adaptability of the owl to burned forest habitat not discussed? Does the SFNF monitor the Mexican spotted owl population? If so, what are the current trends?
- * Why is retaining the minimum allowed old growth the aim of this project when the forest plan requires as much old growth be managed as possible?
- * Preservation of old growth and fuel reduction have conflicting aims. How will old growth forests with their dense multistoried and high canopy cover be maintained on a minimum of 20% of the project area?

5. CLEARING TREES AND ANNUAL BURNING

- * How many live trees will remain after the initial clearing and burning? How many remainder trees are expected to die in prescribed fires and subsequent wind throw in newly opened stands?
- * Will the legally required regeneration standards for remainder trees be monitored? If so will that data publicly be available?
- * Will the size of burned debris piles be limited to protect soils and discourage invasive plants from becoming established?
- * Why do spruce/fir and piñon/juniper forests with mixed-severity fire regimes receive the same treatment as ponderosa pine and dry mixed conifer forests with low-severity fire regimes?
- * Why are protection measures for the currently secure but vulnerable Southwestern White Pine population not discussed? Will you cut down genetically resistant white pines before it can be determined their value in countering white pine blister rust?
- * Will on-going livestock grazing impede the goal of restoring low-severity fire regimes?
- * Reference conditions are mentioned as being used to establish a desired forest structure. Please identify the reference sites in the project's Colorado Rockies bioregion.

Respectfully Submitted,

/s/ Sam Hitt

Sam Hitt
 President SFFC
 Founder Wild Watershed

REFERENCES

- Anderson, H. Mike et al., 2012. Watershed Health in Wilderness, Roadless, and Roaded Areas of the National Forest System. The Wilderness Society, Washington DC. <http://wilderness.org/resource/watershed-health-wilderness-roadless-and-roaded-areas-national-forest-system>.
- DellaSala, D., J. Karr, and D. Olson. Roadless areas and clean water. *Journal of Soil and Water Conservation*, vol. 66, no. 3. May/June 2011.
- Elliot, W.J. 2010. Effects of forest biomass use on watershed processes in the western United States. *Western Journal of Applied Forestry* 25: 12-17.
- Endicott, D. 2008. National Level Assessment of Water Quality Impairments Related to Forest Roads and Their Prevention by Best Management Practices. Final report to U.S. Environmental Protection Agency, Contract No. EP-C-05-066, Task Order 002. Great Lakes Environmental Ctr.: Traverse City, MI. December. 259 pp
- Fairbanks, R. 2005. Why the Forest Service needs whistleblowers, *Forest Magazine*, 7:1.
- Friederici, P. (Ed.). 2003. *Ecological Restoration of Southwestern Ponderosa Pine Forests*. Island Press: Washington, DC.
- Kaufmann, M.R., W.H. Moir, and W.W. Covington. 1992. Old-growth forests: what do we know about their ecology and management in the Southwest and Rocky Mountain regions? Pp. 1-10 in: M.R. Kaufmann, W.H. Moir, and R.L. Bassett (eds.). *Old-Growth Forests in the Southwest and Rocky Mountain Regions: Proceedings from a Workshop (1992)*. Portal, AZ. USDA For. Serv. Gen. Tech. Rep. RM-213. Fort Collins, CO.
- Gucinski, H., M.J. Furniss, R.R. Ziemer and M.H. Brookes (eds.). 2001. *Forest Roads: A Synthesis of Scientific Information*. USDA For. Serv. Gen. Tech. Rep. PNW-GTR-509. Portland, OR.
- Kelly, A.R. *Chestnut surviving blight*. *Science* 40 (1924): 292-93
- Luyssaert, S., E.D. Schulze, A. Börner, A. Knohl, D. Hessenmöller, B.E. Law, P. Ciais and J. Grace. 2008. Old-growth forests as global carbon sinks. *Nature* 455: 213-15.
- Odum W.E. 1982. Environmental degradation and the tyranny of small decisions. *Bioscience* 33:728-729.
- Robichaud, P.R., L.H. MacDonald and R.B. Foltz. 2010. Fuel management and erosion. Ch. 5 in: W.J. Elliot, I.S. Miller and L. Audin (eds.). *Cumulative Watershed Effects of Fuel Management*

in the Western United States. USDA For. Serv. Rocky Mtn. Res. Sta. Gen. Tech. Rep. RMRS-GTR-231. Fort Collins, CO.

Six, D., C. Vergobbi and M. Cutter. 2018. Are survivors different? Genetic-based selection of trees by mountain pine beetle during climate change-driven outbreaks in a high-elevation pine forest. *Frontiers in Plant Science*



This petition has collected
381 signatures
using the online tools at ipetitions.com

Printed on 2019-07-08

Save the Santa Fe National Forest

About this petition

I respectfully request that the Santa Fe National Forest prepare an Environmental Impact Statement (EIS) that fully complies with the National Environmental Policy Act (NEPA) in regard to the tree cutting and burning program for the scenic 107,000 acre forest on the western slope of the Sangre de Cristo mountains above Santa Fe known as the Greater Santa Fe Fireshed. The EIS must evaluate alternatives that protect roadless areas, wildlife populations, soil, water, and the ecological integrity of the forest using the best available science.

I further request that the Santa Fe National Forest halt all tree clearing projects in the Greater Santa Fe Fireshed until an EIS has been completed and the public fully informed and involved in the process.

Signatures

1. Name: Bob Funkhouser on 2017-04-19 23:29:49
Comments: An EIS is essential as is greater public involvement. These thinning projects are very destructive and create roads in roadless areas, and all for highly questionable benefits.

2. Name: Doug Booth on 2017-04-20 23:14:20
Comments: The prescription of cutting 93% is drastic and unwarranted, given the recent Forest Service study (Johnson, 2011) recommending leaving 125 and 250 trees per acre. Do and EIS!!

3. Name: Karen Edwards on 2017-04-21 13:42:53
Comments:

4. Name: Patricia D'Andrea on 2017-04-21 21:50:37
Comments: Please use compliance with NEPA to schedule an EIS before going forward with all tree clearing projects in the fireside. I am particularly concerned that a cut based on an outdated assessment (2005!) may go forward without any revisions. Thank you for protecting the forest and for not permitting drastic (90% or greater) tree cutting.

5. Name: David Robertson on 2017-04-21 23:49:32
Comments:

6. Name: David Trusty on 2017-04-22 19:25:26
Comments:

7. Name: Penelope Stowell on 2017-04-23 19:58:36
Comments:

8. Name: Sam Hitt on 2017-04-24 19:24:59
Comments: Clearing 95% of the trees is a significant federal action and clearing requires detailed analysis and public disclosure in an EIS.

9. Name: Emmy Koponen on 2017-04-26 16:44:47
Comments: We need all the trees!

10. Name: Paula Seaton on 2017-04-26 20:00:36
Comments: Please stop any tree clearing projects in the Santa Fe fireshed until an EIS has been completed.
This is a critical time on earth to be clearing more trees.
Thank you.
Paula Seaton

11. Name: jan boyer on 2017-04-27 23:12:50
Comments: Thank you

12. Name: cynthia on 2017-04-28 22:57:20
Comments:

13. Name: Howard Bleicher on 2017-04-29 21:08:41
Comments: The requirement for an EIS is the common sense approach and should be supported by all.

14. Name: Cynthia West on 2017-04-29 22:11:06
Comments:

15. Name: Erica Elliott on 2017-04-29 22:30:27
Comments:

16. Name: Edmund Merchant on 2017-04-29 22:43:11
Comments:

17. Name: gail larsen on 2017-04-29 23:55:36
Comments:

18. Name: Sherry Heim on 2017-04-30 00:14:59
Comments:

19. Name: Jade on 2017-04-30 00:38:16
Comments:

20. Name: anonymous anonymous on 2017-04-30 00:40:22
Comments:

21. Name: Alma Best on 2017-04-30 02:20:18
Comments:

22. Name: Wendy Higgins on 2017-04-30 16:49:19
Comments:

23. Name: Cate Moses on 2017-04-30 17:02:21
Comments:

24. Name: Carole Crews on 2017-04-30 17:18:11
Comments:

-
25. Name: Phoebe Hummel on 2017-04-30 17:48:03
Comments: Please stop cutting down and burning our trees in the Greater Santa Fe Watershed.
-
26. Name: Hope Kiah on 2017-04-30 19:10:48
Comments:
-
27. Name: Philip Balcombe on 2017-04-30 19:44:24
Comments: Clear, clean air is vital to many aspects of local life, including tourism. I'm sick of the frequent burns spoiling that, especially if the rationale for them is suspect
-
28. Name: Sita Jamieson Caddle on 2017-04-30 22:52:43
Comments:
-
29. Name: Linda Hinckley on 2017-05-01 04:14:46
Comments:
-
30. Name: Mary Ellen Amuso on 2017-05-04 03:05:28
Comments: Please Take into account the new studies of the JOHNSON Study Lyra Barron Mentioned as well as the EIS being completed. No more cutting please
-
31. Name: Janiece Jonsin on 2017-05-12 22:03:48
Comments: Please, I would like to require an EIS before we allow further tree clearing and disrupting or killing of wildlife. The old ways of doing things without question don't work for our environment today. Thank you.
-
32. Name: Rebecca Crumbacher on 2017-05-13 23:20:45
Comments:
-
33. Name: kali goring on 2017-05-18 14:16:04
Comments:
-
34. Name: Tom Brady on 2017-05-18 21:49:47
Comments: We thought thinning trees on our land adjacent the SFNF would be a good idea. But it is clear to us now that the forest is so stressed from lack of moisture that opening up the canopy has only further overwhelmed the whole system.
-
35. Name: Marlene Fischer on 2017-05-19 01:56:09
Comments: please be sensitive and sensible - NOT invasive and destructive ..
-
36. Name: Gregory Gutin on 2017-05-19 03:16:19
Comments:

-
37. Name: Pam Wagner on 2017-05-19 11:39:17
Comments: Save our forest please
-
38. Name: Shelley FaanesHorne on 2017-05-21 02:22:42
Comments: Please don't act too hastily.....wait until EIS has completed a study.....don't leave any stone unturned...for the greater good of all forest, wildlife and humans. Act with great care ...thank you
-
39. Name: Francois-Marie Patorni on 2017-05-24 03:35:14
Comments: The Forest Service mission, according to its website, is to "sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations." This is clearly not the objective that is now what is being pursued in our area.
-
40. Name: Bonnie Friedmann on 2017-05-27 23:03:21
Comments: While I am not a resident of New Mexico, I have spent time there and enjoyed the beauty and serenity of its forests. I was very distressed to learn of the recent clearing operations that have dangerously thinned large tracts of the forest, leaving an unsightly mess. The overly aggressive thinning has destroyed animal habitats and increased the likelihood of erosion. I stand with those residents and voters of New Mexico who care about their forests by requesting that all thinning operations cease until an EIS is undertaken. Thank you.
-
41. Name: Dianna Suslo on 2017-05-27 23:11:21
Comments:
-
42. Name: Sarah Hyden on 2017-05-28 00:27:58
Comments: It is so heart breaking to see the extreme tree cutting that is occurring in and nearby the Santa Fe National Forest. It simply devastates the forest, and we are seeing that it weakens the remaining trees so they are contracting tree diseases. We need a thorough study of this tree clearing project by the completion of an Environmental Impact Statement.
http://www.santafenewmexican.com/opinion/my_view/reader-view-help-save-our-forest/article_934def3e-5d13-594e-a4cb-899617365fde.html
-
43. Name: Donald DuBois on 2017-05-28 01:25:05
Comments: Thank you for caring so much about our piece of the environment and saving the forest from over cutting.
-
44. Name: Sol suslovich on 2017-05-28 01:42:46
Comments:
-
45. Name: Dawn ehrhard wingard on 2017-05-28 02:08:03
Comments: Please moderate your care and clear cutting of the forest

-
46. Name: phyllis blair on 2017-05-28 02:34:18
Comments:
-
47. Name: Charles Carruthers on 2017-05-28 05:41:52
Comments:
-
48. Name: Mark Wingard on 2017-05-28 14:38:25
Comments:
-
49. Name: Janice Olch on 2017-05-28 16:24:15
Comments: Comply with existing laws and prepare an EIS before any tree thinning or clearing. Don't rely on outdated science, consult current science when making decisions about forest management.
-
50. Name: Fred Hyden on 2017-05-28 18:15:45
Comments: Beautiful area. Worth protecting.
-
51. Name: Nina Simons on 2017-05-28 19:25:52
Comments: I live adjacent to the national forest, and implore you to conduct an EIS as this petition states...as public input is impt and needed in this effort. Of course we need to make the forests safer, but we also need to preserve habitat for wildlife, and other needed ecosystem functions.
-
52. Name: Zachary Travis Finn on 2017-05-28 22:21:42
Comments:
-
53. Name: Diane Carlson on 2017-05-28 22:43:04
Comments:
-
54. Name: Francine E Wunk on 2017-05-29 01:37:27
Comments:
-
55. Name: Charles Koenig on 2017-05-29 04:26:47
Comments:
-
56. Name: barbara alenia on 2017-05-29 09:28:04
Comments:
-
57. Name: Martha Davis on 2017-05-29 12:33:42
Comments:
-

58. Name: Test by Bob Funkhouser on 2017-05-29 13:02:41
Comments: this is a test
-
59. Name: Adrian Wills on 2017-05-29 13:50:56
Comments:
-
60. Name: helen chantler on 2017-05-29 14:08:06
Comments:
-
61. Name: Sylvia Seret on 2017-05-29 14:48:01
Comments:
-
62. Name: Jade Gordon on 2017-05-29 15:30:22
Comments:
-
63. Name: Claudia Bloom on 2017-05-29 17:13:32
Comments:
-
64. Name: Anna Soeiro on 2017-05-29 19:57:12
Comments:
-
65. Name: Russell J Ray on 2017-05-29 20:17:00
Comments:
-
66. Name: Robert Bernstein on 2017-05-29 20:52:36
Comments:
-
67. Name: Maj-Britt Eagle on 2017-05-29 21:36:20
Comments: Please do not burn trees in the western slope of the Sangre de Cristo mountains above Santa Fe; new science (Hidden Life of Trees) shows their community networking & their sequestering of carbon are life giving. We value the forest in its natural state, as we value ecological integrity over profit. Maj-Britt Eagle, 21 Cougar Ridge Road, 87505
-
68. Name: JORGE OTI on 2017-05-29 21:59:52
Comments: I live adjacent to the SF National Forest and of course fire safety is a major concern. Likewise a poor EIS is also a major concern. I request that the SFNF prepare an EIS that complies with established guidelines for a tree clearing program.
-
69. Name: Betty Kuhn on 2017-05-29 22:08:41
Comments: Please stop clearing trees around Santa Fe until an EIS has been done.
-
70. Name: Lisa Corradino on 2017-05-31 05:51:52

Comments: This is an abomination! With all the pollution already compromising our air quality and the one thing that stands to benefit the problem being foolishly demolished with heavy petroleum guzzling ecosystem destroying equipment as a preemptive strike against wildfires? This is pure insanity

71. Name: Janet Williams on 2017-05-31 13:15:37
Comments:

72. Name: Eduardo Santiago on 2017-05-31 13:58:48
Comments: It is standard practice to require an EIS before projects of this magnitude. Please act with due caution.

73. Name: Alan Callioni on 2017-05-31 14:48:30
Comments: Waiting for an EIS simply makes sense.

74. Name: Michelle Pascale on 2017-05-31 15:11:21
Comments:

75. Name: Angela S Kirkman on 2017-05-31 15:17:26
Comments:

76. Name: K TYson on 2017-05-31 16:03:05
Comments:

77. Name: Erin Gould on 2017-05-31 18:39:28
Comments:

78. Name: Joseph Patton on 2017-05-31 23:11:10
Comments:

79. Name: Marylou Butler on 2017-06-01 03:23:36
Comments:

80. Name: Marilyn Hargrove on 2017-06-01 14:59:37
Comments:

81. Name: Colin on 2017-06-01 22:18:49
Comments:

82. Name: fred king on 2017-06-02 14:44:49
Comments:

83. Name: Dee Blanco on 2017-06-02 21:05:16
Comments: Although any study cannot completely cover the complexity of the forest with climate changes occurring, to speed ahead with thinning without a thorough EIS is an exercise in ignorance headed for disaster of our public lands. Respect for the health of our forests and therefore our planet absolutely requires, at a minimum, an EIS.
-
84. Name: Joel M Mathews on 2017-06-06 22:24:11
Comments: Please find alternatives and protect our forests from unnecessary damage to life! thank you!
-
85. Name: JO SPEICHER on 2017-06-08 02:47:17
Comments: PLEASE DO NOT CLEAR THE FORESTS.
-
86. Name: Dick Artley on 2017-06-09 01:44:11
Comments: Greater Santa Fe Fireshed work is not a "project" but instead its a program. A programmatic EIS must be completed.
-
87. Name: tatiana druffel on 2017-06-09 18:44:31
Comments:
-
88. Name: Heather Ni Caera on 2017-06-29 10:34:31
Comments:
-
89. Name: Susan Popovich on 2017-06-29 12:55:05
Comments:
-
90. Name: Pat Walke on 2017-06-30 01:19:49
Comments:
-
91. Name: Lissa Callirhoe on 2017-07-06 21:34:27
Comments: I've lived in Northern NM since 1957. I've known in my heart that it is Wrong to burn forests, but I just found out, in the Green Fire Times, that other folks know this also! I'm grateful to not be alone!
The smoke from those "prescribed burns" is used to cover air pollution from other sources.
When will we stop the destruction?! I'm no scientist, just a living breathing person, who once loved to roam NM's forests.
-
92. Name: CLAIRE FRYE on 2017-07-08 21:12:16
Comments: Stop the burns! They cause harm to people, animals, vegetation and are NOT scientifically proven to wrk. Moreover STOP doing whatever you please without citizen input, Forest Service.
-
93. Name: Claire Frye on 2017-07-16 23:56:48

Comments: A

94. Name: Kate Savannah on 2017-08-08 16:35:45
Comments: What a great idea! Let's burn more forests so we add yet more carbon to the atmosphere and further enrich whatever greedy corporation will make a killing - literally and figuratively - off of this.

It's "plans" like this that bear witness to the fact that capitalism makes you stupid...RREALLY STUPID!!

95. Name: Mark Messer on 2017-08-09 14:49:59
Comments:

96. Name: Douglas Moore on 2017-09-20 00:36:19
Comments:

97. Name: Deborah Brink on 2017-09-20 02:40:59
Comments: I demand a comprehensive environmental impact statement

98. Name: David on 2017-10-01 21:35:45
Comments: Greed and Ignorance Guide the US Forest Policies. Stop the prescribed burns creating medical harm to humans. Let's get beyond the Modern Dark Ages to a Journey to Truth and Healing.

99. Name: SV Yeshe Gaia-Khan on 2017-10-26 16:33:48
Comments: Our forests are vital and life-giving; air giving. Please have some common sense. Protect our forests. For the People. For the animals. For the planet. It's the right thing to do. Generations to come will thank you.

100. Name: Dharma Best on 2017-10-26 18:57:24
Comments:

101. Name: Dr Jonas Skardis on 2017-10-27 02:15:15
Comments:

102. Name: Maggy schulze on 2017-11-12 14:11:24
Comments:

103. Name: Tom Brady on 2017-11-17 02:37:40
Comments:

104. Name: Mark Wingard on 2017-11-26 14:38:10
Comments:

-
105. Name: Tina Davila on 2018-01-24 19:18:21
Comments:
-
106. Name: Melissa Chalmers on 2018-02-27 20:52:11
Comments:
-
107. Name: Lucy Smith on 2018-03-05 01:58:34
Comments:
-
108. Name: Joan Dickerson on 2018-03-05 15:54:17
Comments:
-
109. Name: Shelley Oram on 2018-03-05 17:45:32
Comments: Do the study and publish the results before any further action!!!
-
110. Name: Carolyn Lake on 2018-03-05 18:25:39
Comments: Yes to stopping all plans of deforestation in Santa Fe Forest
-
111. Name: Adele Strasser on 2018-03-05 19:01:55
Comments: Please do environmental study first for this small fragile vulnerable eco system which serves so much to Santa Fe residents.
-
112. Name: Amy Kaplan on 2018-03-06 01:04:43
Comments:
-
113. Name: Dexter Wayne on 2018-03-11 00:13:19
Comments:
-
114. Name: Cristina Phillips on 2018-03-11 00:26:54
Comments: We need to save our beautiful forests from this travesty!
-
115. Name: David Dillman on 2018-03-11 01:53:04
Comments:
-
116. Name: Nancy Reed on 2018-03-11 14:15:01
Comments: An EIR is necessary!
-
117. Name: Alan Questel on 2018-03-11 15:28:00
Comments:
-
118. Name: Jo Lee on 2018-04-04 18:33:51

Comments:

-
119. Name: AURORA ROSE HVIDSTEN on 2018-04-07 14:24:07
Comments:
-
120. Name: Dr Jonas Skardis on 2018-04-07 15:21:57
Comments:
-
121. Name: Paula McGee on 2018-04-08 20:49:12
Comments: I am fortunate to be able to experience our Santa Fe National Forest for several weeks each year while camping at Black Canyon and Hyde Park. It is essential to protect the roadless areas.
-
122. Name: Katherine Carino on 2018-04-09 00:59:44
Comments:
-
123. Name: Simon Williams on 2018-04-09 01:00:39
Comments:
-
124. Name: Carol J Johnson on 2018-04-09 15:10:46
Comments: Wildlife are being stressed by climate change . Cutting and burning the forest is criminal, further distresses wildlife, humans, the remaining forest, air and water. An EIS is essential!
-
125. Name: Lyra Barron on 2018-04-09 15:30:17
Comments: I live in an area that is being thinned, and the drive I once so enjoyed now brings tears to my eyes. I love the trees, and now the beauty of the wild untouched nature is forever gone, to no purpose. We now have mountains of slash that feel more dangerous.
-
126. Name: William Franklin on 2018-04-10 13:34:08
Comments:
-
127. Name: Canny Green on 2018-04-10 14:37:59
Comments: An EPA assessment should also evaluate the impact on the adjacent Pecos Wilderness.
-
128. Name: Gerald Black on 2018-04-10 14:39:59
Comments: NO clearing until an EIS is completed.
-
129. Name: Cindy Gregory on 2018-04-10 14:51:16
Comments: This is the only responsible course of action. We expect compliance from our government.

-
130. Name: Susan Davis on 2018-04-10 14:52:55
Comments:
-
131. Name: Susan Morgan on 2018-04-10 14:53:47
Comments:
-
132. Name: Audrey Heffelfinger on 2018-04-10 14:58:40
Comments:
-
133. Name: Carolyn Scott on 2018-04-10 15:14:37
Comments: Please dont thin the trees and leave all the brush, and your damage to the wild life and land.
-
134. Name: Stephanie Garcia on 2018-04-10 15:33:07
Comments:
-
135. Name: scott armstrong on 2018-04-10 15:49:41
Comments:
-
136. Name: Linda Regnier on 2018-04-10 16:01:50
Comments:
-
137. Name: William Gooch on 2018-04-10 16:24:43
Comments: There is NO scientific evidence supporting the ongoing radical forest thinning in eastern Santa Fe county, and its destructive impact to the forest and the wildlife is undeniable.
-
138. Name: Marilyn Von Reiter on 2018-04-10 16:55:43
Comments: Stop denuding our forest and disrupting the natural balance until an EIS report is done. This is mindless destruction of our forest!
-
139. Name: Dan Schiller on 2018-04-10 16:59:17
Comments:
-
140. Name: Judith White on 2018-04-10 17:38:19
Comments:
-
141. Name: Linda F Whittenberg on 2018-04-10 18:20:00
Comments: Please take necessary steps to prevent forest fires in the Pecos Wilderness. An impact statement sounds like a good idea to me.
-

142. Name: Donald Emery on 2018-04-10 22:51:42
Comments:
-
143. Name: linda seese on 2018-04-10 23:39:39
Comments:
-
144. Name: Carolyn Lake on 2018-04-11 00:19:50
Comments:
-
145. Name: Madeline Foy on 2018-04-11 01:43:22
Comments:
-
146. Name: Shari Hirst on 2018-04-11 01:56:59
Comments: There are responsible ways to thin a forest and make it resilient to fire, and non-responsible ways that destroy a forest.
-
147. Name: Helene Aarons on 2018-04-11 13:45:37
Comments: AN EIS STATEMENT FIRST THAT COMPLIES WITH NEPA IS THE RIGHT FIRST STEP.
-
148. Name: Mary Parsaca on 2018-04-11 14:09:55
Comments:
-
149. Name: Karyn Rose on 2018-04-11 15:15:40
Comments:
-
150. Name: Jerry Hannah on 2018-04-11 18:44:15
Comments: Since the EPA is currently leaderless, we must do what we can to keep our parks and national forests intact.
-
151. Name: Carol Bartelt on 2018-04-12 00:28:50
Comments:
-
152. Name: Janette Fischer on 2018-04-12 14:08:38
Comments:
-
153. Name: Jo Ann Sullivan on 2018-04-12 21:06:31
Comments:
-
154. Name: Kathleen on 2018-04-12 21:24:23
Comments:
-

155. Name: Goose Fedders on 2018-04-12 22:14:17
Comments:
-
156. Name: Genny Genevich on 2018-04-13 01:36:28
Comments:
-
157. Name: Robert Perks on 2018-04-13 17:28:05
Comments:
-
158. Name: Lura Brookins on 2018-04-13 20:33:18
Comments:
-
159. Name: Kathryn Brooks on 2018-04-13 20:50:37
Comments: An EIS is essential before decisions to proceed begin.
-
160. Name: Jeffry Hanus on 2018-04-15 22:04:45
Comments: Stop clear cutting trees until and EIS has been completed and the public fully informed and involved in the process.
-
161. Name: Susana Guillaume on 2018-04-15 23:46:42
Comments: Please don't destroy the forest especially when it appears that there is absolutely no benefit to doing so.
-
162. Name: MARY LAYNE on 2018-04-19 17:20:48
Comments:
-
163. Name: Tim Mckimmie on 2018-04-22 02:15:07
Comments:
-
164. Name: Scott Shuker on 2018-04-23 14:14:24
Comments:
-
165. Name: jonathan shapiro on 2018-05-17 22:27:53
Comments: This is unbelievable. Clear cutting is not the answer.
-
166. Name: Myriah Toups on 2018-05-25 00:10:37
Comments:
-
167. Name: Martha Davis on 2018-05-25 13:57:52
Comments:
-
168. Name: Renee Athay on 2018-05-26 00:40:04

Comments:

169. Name: marnie gaede on 2018-06-02 20:46:07
Comments:

170. Name: Kim Butler McIntosh on 2018-06-04 17:42:09
Comments:

171. Name: Pamella Neely on 2018-06-12 19:27:17
Comments: This is simply too much acreage to not manage with scientifically-backed information. This type of cutting - removing 90% of the trees - has had very bad consequences in other parts of the West.

The people want a real study done! It's our forest!

172. Name: Robert Hoffman on 2018-06-13 03:22:53
Comments:

173. Name: Ruby Thorne on 2018-06-20 02:29:52
Comments:

174. Name: Kitty Broadbent on 2018-07-08 14:27:32
Comments:

175. Name: Lynn Rosen on 2018-07-08 18:45:32
Comments: what purpose is served by NOT doing an EIS? who benefits from that?

176. Name: Fredrick Ruff on 2018-08-04 15:27:48
Comments:

177. Name: Karen Weber on 2018-08-19 18:38:16
Comments:

178. Name: lucie brennan on 2018-08-19 18:55:53
Comments:

179. Name: Naomi Landau on 2018-08-25 18:03:19
Comments:

180. Name: M G on 2018-08-26 18:07:24
Comments: Stop destroying our

181. Name: molly mysliwiec on 2018-08-28 14:11:10
Comments:
-
182. Name: Mary Langdon on 2018-09-09 21:54:18
Comments:
-
183. Name: Lonnie Howard on 2018-09-12 03:52:41
Comments:
-
184. Name: Doug Hitt on 2018-09-12 16:05:14
Comments:
-
185. Name: Sheila burns on 2018-09-16 14:06:13
Comments:
-
186. Name: Susan Davis on 2018-09-16 15:29:21
Comments:
-
187. Name: Courtney Knudsen on 2018-09-23 17:21:42
Comments: Don't take our trees!
-
188. Name: Rev Jean Darling on 2018-09-26 01:30:22
Comments: There is still so much we have to learn about how forests care for themselves!
-
189. Name: Merle Lefkoff on 2018-09-28 19:03:44
Comments:
-
190. Name: Janis Kerr on 2018-09-28 19:49:05
Comments: There must be an environmental impact done before these thinning burns can happen. I also protest how the fires are lit. More than once have we come out of our business in the early evening when burns are being done and smelled burning flesh. You can't convince me that this is not our wildlife in the mountains that are burning. we never notice it any other time. Please save our wildlife especially when they are getting ready for hibernation and when they are baring their young and nesting in the spring. Janis Kerr Santa Fe N.M.
-
191. Name: Laura Clarke on 2018-09-28 20:16:56
Comments:
-
192. Name: Marilyn on 2018-09-29 04:17:34
Comments:
-

193. Name: Rebecca Procter on 2018-09-29 11:07:07
Comments:
-
194. Name: Luaan Gutierrez on 2018-09-29 19:01:39
Comments:
-
195. Name: Liz Bessin on 2018-10-06 05:05:23
Comments:
-
196. Name: Matt henriquez on 2018-10-06 17:25:12
Comments: Please do not do this.
-
197. Name: Catherine Sullivan on 2018-11-05 03:26:33
Comments:
-
198. Name: Lori Abel on 2018-11-28 02:59:45
Comments:
-
199. Name: Kent Little on 2018-11-28 04:35:35
Comments: Leave no stone unturned!
-
200. Name: Shubham Agarwal on 2018-11-28 10:22:17
Comments:
-
201. Name: Ann Jordan on 2018-12-07 21:07:28
Comments: I am a resident of the Glorieta area and I oppose the apparent unchecked cutting of trees in the Santa Fe National Forest and neighboring areas. I was born and raised in Santa Fe, and I moved to this area 26 years ago. The trees were an important aspect of my decision to move here. I had the assurance that because my land borders National Forest, along with many of my neighbors', we are protected because the National Forest is protected. Such is apparently not the case, and this is a shock. Property values are negatively affected as well as residents' quality of life when indiscriminate clearing is allowed.
-
202. Name: Wendy Volkmann on 2018-12-11 20:57:27
Comments:
-
203. Name: Natalie Wells on 2018-12-12 15:55:22
Comments: It is obvious that an EiS is needed.
-
204. Name: Jane Shoenfeld on 2018-12-19 16:11:52
Comments:
-

205. Name: Maureen Havey on 2019-01-02 09:11:00
Comments: this sounds like a very bad idea
-
206. Name: Glenn Castro on 2019-01-11 04:07:16
Comments: shame
-
207. Name: Edith Homans on 2019-01-13 17:07:14
Comments: An EIS and ample public input is essential for a project of this magnitude.
-
208. Name: Ann Hendrie on 2019-01-21 20:05:08
Comments:
-
209. Name: Spencer Atkinson on 2019-01-28 00:08:08
Comments:
-
210. Name: Paul Eitner on 2019-01-28 02:27:02
Comments:
-
211. Name: Jennifer Johnson on 2019-01-28 03:35:11
Comments:
-
212. Name: Tom Sharpe on 2019-01-28 03:39:37
Comments: I have doubts about the effectiveness of cutting and burning in forests on wildfires.
-
213. Name: Dahlia Cummings on 2019-01-28 03:53:12
Comments:
-
214. Name: Ruth Lathrop on 2019-01-28 04:16:33
Comments:
-
215. Name: Pete hitt on 2019-01-28 15:24:18
Comments:
-
216. Name: Jonathan Glass on 2019-03-06 00:05:41
Comments: Today SFNF announced that they hope to start a forest fire a few miles east of downtown in a week or two. There may well be a lot of dangerous smoke where I live like there was when they started a similar fire in the fall, but I can take precautions, e.g. leave town. I am most cynical and don't understand the supposed risk management behind what otherwise sounds like exploitation.
-
217. Name: Jack Lehman on 2019-03-19 21:37:11
Comments:

I respectfully request that the Santa Fe National Forest prepare an Environmental Impact Statement (EIS) that fully complies with the National Environmental Policy Act (NEPA) in regard to the tree cutting and burning program for the scenic 107,000 acre forest on the western slope of the Sangre de Cristo mountains above Santa Fe known as the Greater Santa Fe Fireshed. The EIS must evaluate alternatives that protect roadless areas, wildlife populations, soil, water, and the ecological integrity of the forest using the best available science.

I further request that the Santa Fe National Forest halt all tree clearing projects in the Greater Santa Fe Fireshed until an EIS has been completed and the public fully informed and involved in the process.

218. Name: Christine Pickrell on 2019-03-20 18:33:09
Comments:

219. Name: Christina Bouajila on 2019-03-20 19:58:53
Comments:

220. Name: Carol Licini on 2019-03-20 23:32:14
Comments:

221. Name: Valerie Miller on 2019-03-21 00:00:51
Comments:

222. Name: Naima Shea on 2019-03-21 01:44:28
Comments: The destruction of over 90% of the trees, particularly using chemicals with known damaging effects to humans as well as animals, insects and birds, amounts to nothing less than a scorched earth policy. We cannot afford to destroy in the name of life anymore. DO AN EIS.

223. Name: Brianna romero on 2019-03-21 02:43:17
Comments:

224. Name: John Smallwood on 2019-03-21 05:29:11
Comments: In 2019, it is time that the sane minds take over the USFS. Make it the world's leading ecological preserve. You are still, in 2019, Teddy Roosevelt's logging apparatus, and it is not representative of the individuals in the organization. Why no EIS and why is project information unavailable? Who is gaining while we all are losing?

225. Name: Barbara howard on 2019-03-21 15:18:16
Comments:

226. Name: Peter clark on 2019-03-21 15:55:07
Comments:

227. Name: Holly Coonsis on 2019-03-21 16:38:07
Comments:

228. Name: scott a reid on 2019-03-21 16:58:21
Comments:

229. Name: Linda Spier on 2019-03-21 23:54:00
Comments: Forests, trees, are an integral, essential part of the water cycle. And the trees roots hold the mountains in place. Destroy the forests...we destroy ourselves, and will leave a barren, rocky, eroded, lifeless, waterless landscape that will never recover in this arid region. Forests must be protected; forests are a priceless, irreplaceable treasure. Shame on the Hubris of those wo/men coming up with this heinous scheme that will destroy the Santa Fe Watershed, and disrupt the entire ecosystem of the sacred Sangre de Cristo Mountains.

230. Name: Keith peters on 2019-03-23 01:00:02
Comments:

231. Name: Fitz Jay on 2019-03-23 05:42:09
Comments:

232. Name: Seckler Marilyn on 2019-03-23 16:41:47
Comments:

233. Name: Agnes Lau on 2019-03-24 14:03:50
Comments: Removal of 93% of the trees is not a prescription. It is decimation with serious short and long term repercussions. The project proposal without an EIS is suspect. SFNF - please do the right thing. Conduct the EIS and share it with the citizens of Santa Fe and all affected areas so that we have facts and know what we are dealing with.

234. Name: caryn glickman on 2019-04-01 14:41:38
Comments:

235. Name: Kim Richardson on 2019-04-03 00:19:09
Comments:

236. Name: G Okuma on 2019-04-17 20:15:05
Comments: Burning or cutting 90% of the trees which make Santa Fe one of the most beautiful, unique places in the US is not a "thinning" operation in the name of public safety. It's a clearing which will effect the health of the landscape and the people of Santa Fe for years to come. We live in a changing climate and our methods for protecting ourselves must also protect the earth we leave behind for our children. It is reasonable to request a proper EIS to do as the Forest Service promises - protect the woods and the people.

-
237. Name: Karen Shepherd on 2019-04-19 06:47:08
Comments: And, if and when "controlled burns" are scheduled, using chemicals that endanger public health should be re-evaluated! Please!
-
238. Name: Harrison Hook on 2019-04-29 19:53:16
Comments:
-
239. Name: Satya Deborah Kirsch on 2019-05-08 16:12:35
Comments:
-
240. Name: Sandra Giltner on 2019-05-16 12:58:59
Comments:
-
241. Name: gail larsen on 2019-05-20 13:45:49
Comments:
-
242. Name: Kathy Marie Smith on 2019-05-20 16:58:21
Comments:
-
243. Name: Kathryn Sipowicz on 2019-05-21 13:04:47
Comments:
-
244. Name: Lynar Abel on 2019-05-22 15:07:50
Comments:
-
245. Name: Katy Evans on 2019-05-22 15:17:44
Comments:
-
246. Name: Ben B on 2019-05-22 17:46:55
Comments:
-
247. Name: nina zelevansky on 2019-05-22 17:49:28
Comments: Pleasable to e, we must learn to think and deeply investigate, before we act on something that will never be able to be fixed. Our forests, are care for our wildlife, are part of my home in NM. Please lets protect it !
-
248. Name: Nigel Rudlin on 2019-05-22 17:58:41
Comments: Trees are important for life
-
249. Name: Dena Holman on 2019-05-22 19:33:23
Comments: The very air we breathe is contingent upon trees.

-
250. Name: Joy Carey on 2019-05-22 22:31:38
Comments:
-
251. Name: Kathleen M Noonan on 2019-05-23 00:44:20
Comments:
-
252. Name: Jennie Begley on 2019-05-23 17:52:45
Comments: thank you for sharing this and for your efforts. please contact me if I can help
-
253. Name: Deja DeSpain on 2019-05-24 01:55:59
Comments:
-
254. Name: Elliot Ryan on 2019-05-24 02:34:10
Comments:
-
255. Name: Judy Herzl on 2019-05-24 03:09:54
Comments:
-
256. Name: Christian Leahy on 2019-05-24 04:27:53
Comments:
-
257. Name: Maryanne Fillier on 2019-05-24 04:39:27
Comments: Save the Santa Fe National Forest
-
258. Name: Donna Dluhy on 2019-05-24 05:25:10
Comments:
-
259. Name: acazia gilmore on 2019-05-24 11:09:24
Comments:
-
260. Name: Debra Roberts on 2019-05-24 13:35:16
Comments:
-
261. Name: Eduardo Quant on 2019-05-24 14:38:22
Comments: Save it!
-
262. Name: Rita hogan on 2019-05-24 15:17:48
Comments: We need to conserve trees and animal habitat
-
263. Name: Randy Kidd on 2019-05-24 15:21:13
Comments:

-
264. Name: Daryl Stanton on 2019-05-24 15:38:25
Comments:
-
265. Name: Lucy Viele on 2019-05-25 09:23:59
Comments:
-
266. Name: Dorothy Dean on 2019-05-25 12:16:03
Comments: The previous clearing has been excessive and mistakes have been made that lead to the unintended burning of trees that were intended to be saved. Roads have been created inviting ATV's and causing more erosion. An EIS should be performed!
-
267. Name: Barbara Zuckerman on 2019-05-25 15:16:11
Comments:
-
268. Name: Stephen Tanner on 2019-05-25 17:08:17
Comments:
-
269. Name: Nodiah Brent on 2019-05-25 18:21:37
Comments: Transparency is essential.
-
270. Name: Laura Dean on 2019-05-25 22:10:44
Comments:
-
271. Name: Dominique Vorillon on 2019-05-26 15:30:53
Comments:
-
272. Name: Deb Jones on 2019-05-26 16:34:44
Comments:
-
273. Name: Michael Krumm on 2019-05-27 02:02:57
Comments:
-
274. Name: Doris Welch on 2019-05-29 03:59:33
Comments: Can't be good for environment and animals.
-
275. Name: Magita Story on 2019-05-29 04:59:33
Comments:
-
276. Name: Linda Fertal on 2019-05-30 16:26:19
Comments:
-

277. Name: guthrie miller on 2019-05-30 18:01:59
Comments:
-
278. Name: Ryan Ross on 2019-06-02 00:59:10
Comments:
-
279. Name: Greg Sonnenfeld on 2019-06-02 02:10:06
Comments: An EIS is needed to determine if this is the correct process, and if alternative processes would better benefit the forest.
-
280. Name: Randy Chavez on 2019-06-02 16:49:19
Comments: Yes
-
281. Name: jamie douglass on 2019-06-02 22:29:10
Comments:
-
282. Name: Christopher Prandoni on 2019-06-03 03:46:20
Comments:
-
283. Name: lynn and santiago plata on 2019-06-03 23:19:13
Comments:
-
284. Name: Michael Bartlett on 2019-06-04 23:19:17
Comments: Please take the appropriate steps to honor what is right for our geographical area.
-
285. Name: Sylvia Crain on 2019-06-05 03:41:53
Comments: All options should be evaluated and public comment involved in looking at options and approaches for mitigating fire danger and protecting our forests and wildlife.
-
286. Name: Nora Ryerson on 2019-06-05 10:32:07
Comments: We need to be so careful with the precious trees. Make sure we are doing exactly the best thing for the forest before taking any severe, irreversible measures.
-
287. Name: Nancy Kingsbury on 2019-06-05 16:57:09
Comments: We need the trees to offset global climate change.
-
288. Name: Donna Lukacs on 2019-06-05 17:09:24
Comments:
-
289. Name: Jane Price on 2019-06-05 20:22:14
Comments:
-

290. Name: Patricia Stewart on 2019-06-06 03:52:56
Comments: Given the serious state in which we find ourselves in regard to the survival of our planet, we cannot afford to take risks which jeopardize the well-being of our environment and all species. Please take seriously this request to investigate the potential impact of all proposed burnings, keeping in mind we are leaving a legacy for our children and future generations.
-
291. Name: Joanne Bundy on 2019-06-06 05:33:08
Comments:
-
292. Name: john camilli on 2019-06-06 18:44:42
Comments: Save all trees. God save the planet from humans?
-
293. Name: Martin Parks on 2019-06-06 21:33:22
Comments: Please study the impacts of the tree thinning program before proceeding. The cost to plant and animal habitat needs to be understood and costs and benefits weight, considering alternatives before a decision is made to proceed.
-
294. Name: Linda O'Toole on 2019-06-06 21:35:42
Comments: an environmental impact is necessary.
-
295. Name: carla levy on 2019-06-06 22:18:20
Comments:
-
296. Name: Sandra Marak on 2019-06-07 00:15:34
Comments:
-
297. Name: Micah bundy on 2019-06-07 03:58:23
Comments:
-
298. Name: debrianna mansini on 2019-06-07 21:45:15
Comments: if you have not yet seen the film Big Little Farm, you must. It is documentary evidence as to why TREES help save the environment and the health of our planet. All of nature is interconnected and destroying this vital part of the web MUST be studied -at a minimum- before we can no longer replace it. We are in grave danger with climate change. Moves like this, without knowing the consequences, are beyond foolish. They jeopardize our very existence.
-
299. Name: Lisa Camacho on 2019-06-07 21:51:25
Comments: There has to be another solution that isn't so drastic
-
300. Name: Janie Dolechek on 2019-06-07 21:52:59
Comments: I respectfully request that the Santa Fe National Forest prepare an Environmental Impact Statement (EIS) that fully complies with the National Environmental

Policy Act (NEPA) in regard to the tree cutting and burning program for the scenic 107,000 acre forest on the western slope of the Sangre de Cristo mountains above Santa Fe known as the Greater Santa Fe Fireshed. The EIS must evaluate alternatives that protect roadless areas, wildlife populations, soil, water, and the ecological integrity of the forest using the best available science.

I further request that the Santa Fe National Forest halt all tree clearing projects in the Greater Santa Fe Fireshed until an EIS has been completed and the public fully informed and involved in the process.

301. Name: Sarah Wallbaum on 2019-06-07 22:25:05
Comments:

302. Name: Sharon Eliashar on 2019-06-07 22:59:16
Comments:

303. Name: Alicia Curtis on 2019-06-08 02:58:27
Comments: Don't they realize how crucial the plant kingdom is to the survival of the human race (because of the exchange between the plant kingdom and humans of oxygen and carbon dioxide) as well as the life of all of gods critters! There has to be other alternatives to the problem than cutting down and burning down the trees. Keep looking. You will find them!

304. Name: Gene Yoder on 2019-06-08 03:34:13
Comments:

305. Name: Mai Ting on 2019-06-08 15:34:48
Comments:

306. Name: Mary Shearer on 2019-06-08 16:53:12
Comments:

307. Name: Robyn Machney on 2019-06-08 21:33:15
Comments:

308. Name: Christine on 2019-06-09 00:21:35
Comments:

309. Name: Gloria Devan on 2019-06-09 02:09:04
Comments:

310. Name: Deborah Klezmer on 2019-06-09 13:36:46
Comments:

311. Name: Barbara Hawkins on 2019-06-09 16:58:31
Comments:
-
312. Name: Kathleen Quirk on 2019-06-09 20:29:07
Comments:
-
313. Name: I love Katie quirk on 2019-06-09 23:05:28
Comments: I'm serious, she supports this. She's awesome and hot since the 80's
-
314. Name: Jaci Kinsey on 2019-06-10 05:58:48
Comments:
-
315. Name: Ann Reuland on 2019-06-10 12:38:07
Comments:
-
316. Name: Earl James on 2019-06-10 15:42:02
Comments:
-
317. Name: Merlin Emrys on 2019-06-10 16:30:09
Comments:
-
318. Name: Chris Venet on 2019-06-10 18:33:26
Comments:
-
319. Name: Lisa Burns on 2019-06-10 18:39:04
Comments:
-
320. Name: Judi Rider on 2019-06-10 19:53:47
Comments:
-
321. Name: Jennifer on 2019-06-11 00:21:19
Comments:
-
322. Name: Doli on 2019-06-11 06:30:54
Comments: There are other ways of preventing fires. Destroying the environment of species that live there is not the way to tackle this problem!
-
323. Name: Rebeca Price on 2019-06-11 12:56:39
Comments:
-
324. Name: Hanne Burleson on 2019-06-11 13:44:11
Comments:

-
325. Name: sandy funk on 2019-06-11 13:49:17
Comments: as the forest go, so go the animals
"as the animals go, so go we."
Chief Joseph
-
326. Name: evelyn j gauthier on 2019-06-11 14:35:56
Comments:
-
327. Name: Connie Seabourn on 2019-06-11 15:49:56
Comments:
-
328. Name: Purvi Patel on 2019-06-11 15:58:24
Comments:
-
329. Name: Erica Olivares on 2019-06-11 18:07:39
Comments:
-
330. Name: Gregory SALUSTRO on 2019-06-11 18:24:15
Comments:
-
331. Name: Lexi Mackenzie on 2019-06-11 18:29:31
Comments: Please do not clear the forests without an extensive study. We need the trees and it is cruel to kill off so many animals and their homes.
-
332. Name: mare tomaski on 2019-06-11 18:32:36
Comments: do not destroy habitats without impact studies!
-
333. Name: Catherine Isaac on 2019-06-11 19:41:18
Comments: Please provide data to the public showing that this is the absolute correct course of action.
-
334. Name: Helen Henry on 2019-06-11 19:41:55
Comments:
-
335. Name: Trevor Burrowes on 2019-06-12 00:32:40
Comments:
-
336. Name: Trevor Burrowes on 2019-06-12 00:33:06
Comments:
-
337. Name: Carolyn on 2019-06-12 03:45:06

Comments:

338. Name: Rebecca Kroll on 2019-06-12 16:51:34
Comments:

339. Name: susan shanklin on 2019-06-12 22:05:05
Comments:

340. Name: Jennifer Rubin on 2019-06-12 22:55:42
Comments:

341. Name: Nancy on 2019-06-12 23:21:31
Comments: Please halt all tree clearing until the EIS is complete.

342. Name: Deb Dee on 2019-06-13 06:22:11
Comments: We need an environmental Impact Statement. NOT an "assessment" . And we need for you not to burn the trees off the mountain for a bunch of fat cats who couldn't care less about the trees, the wildlife and Santa Fe (Except as real estate). You wanted to help protect the forests. So do it and tell the Feds to stick it where the sun don't shine. Don't destroy what's left of our our precious and fragile desert mountain woods and forest, and pollute our reservoir. DONT DO IT! Have the cajones to stop this horrendously stupid boondoggle, for favor.

343. Name: Richard Pitcairn DVM PhD on 2019-06-13 18:45:50
Comments: We must learn to live with nature, not attack it and treat it as if without value. Many plants and animals depend for their lives on the integrity of the forest.

344. Name: Shana Allan on 2019-06-13 19:08:18
Comments:

345. Name: Donna Lunde on 2019-06-13 20:01:28
Comments:

346. Name: Gina smith on 2019-06-14 01:16:13
Comments: Please do not kill Mother Nature or the wildlife, and don't act before the EIS is done. THANK YOU

347. Name: Nancy Hulbirt on 2019-06-14 15:57:21
Comments: Thank you

348. Name: Lucy Lippard on 2019-06-16 18:44:15
Comments: Please do an EIS.

349. Name: JC Corcoran on 2019-06-17 20:10:05
Comments:
-
350. Name: chantall brachmann on 2019-06-17 21:44:38
Comments: Stop this madness. No more controlled burns
-
351. Name: Ann Crouse on 2019-06-17 22:21:17
Comments:
-
352. Name: DEBORAH BOLDT on 2019-06-18 01:40:59
Comments: Conducting an EIS is needed before undertaking such radical action. Be wise, be prudent...do your job!
-
353. Name: Solar Law on 2019-06-18 02:58:06
Comments: I respectfully request that the environmental assessment be conducted before the Santa Fe national forest and the girls for their radical I respectfully request that the environmental assessment be conducted before the Santa Fe national forest undergoes Further radical thinning and controlled burns
-
354. Name: REINA SANTIAGO on 2019-06-18 14:27:50
Comments: We have to start protecting our natural world that has taken care of us. There must be a better way to help balance our awesome forest. Let's start there
-
355. Name: Reina Santiago on 2019-06-18 14:28:23
Comments:
-
356. Name: Kris Rhines on 2019-06-18 14:37:41
Comments:
-
357. Name: Michael McCollum on 2019-06-18 21:54:01
Comments: Thanks Reina for letting me know about this.
-
358. Name: Susan Thomas on 2019-06-19 00:14:27
Comments:
-
359. Name: Catherine Bellanca on 2019-06-21 14:38:30
Comments:
-
360. Name: Danica D'Emilio on 2019-06-22 18:17:02
Comments:
-
361. Name: Daniel Seirawan on 2019-06-22 18:51:20
Comments: Please do NOT do this! Clear brush yes, but you will burn the greenery and

inundate us with smoke for months. Tourism will suffer greatly as well.

362. Name: Maureen Chase on 2019-06-22 22:45:49
Comments:

363. Name: susan Peirce on 2019-06-23 01:13:14
Comments: This is such a huge project, it needs an EIS that complies with NEPA. To date your clearing of the forests have left horrible debris and decimation. It's unthinkable what 50,000 acres would look like and how much wildlife and plant life would be negatively impacted!

364. Name: William E Hill III on 2019-06-23 18:10:05
Comments:

365. Name: Julia on 2019-06-23 21:39:12
Comments:

366. Name: Therese Schovanec on 2019-06-23 22:41:35
Comments: Please explore alternatives!

367. Name: Sharon Orbach on 2019-06-23 23:41:41
Comments:

368. Name: Patricia Gilliam on 2019-06-24 01:25:58
Comments: Please halt all tree clearing and burning projects in the Santa Fe National Forest and Hyde Park. The EIS is essential for thoughtful forest preservation that will save our wildlife and preserve the natural beauty of our land. Excessive burning is also a health hazard, as we have experienced from current and past fires throughout the southwest. Thank you.

369. Name: Michelle Torrez on 2019-06-24 02:38:18
Comments:

370. Name: Elizabeth Buddington on 2019-06-24 04:28:07
Comments:

371. Name: Gail on 2019-06-24 18:31:05
Comments:

372. Name: Deborah Stark on 2019-06-30 21:47:50
Comments: The science of old is in serious opposition to what we understand today particularly in our understanding of the eco-systems/eco-system of the forest and the planet as a whole.

We need to adjust our practices to meet this new understanding and stop trying to dominate the Natural World. It barely survives as it is.

373. Name: Patricia G Foschi on 2019-06-30 22:46:00
Comments:

374. Name: Ellen Kohn on 2019-07-01 20:31:34
Comments:

375. Name: Marlene Widmann on 2019-07-02 07:07:28
Comments: Please do what is appropriate and do an EIS.

376. Name: Claudia B Wolfe on 2019-07-02 13:05:39
Comments: Seriously?! You can do something this radical without a EIS? PLEASE just take a bit of time to review all options. Clear brush is a good logical start -

377. Name: Dharma Widmann on 2019-07-02 18:59:11
Comments: Doing an EIS first is a common sense first step. All that you've accomplished so far is to get a lot of people very upset. We do not live any longer in a time when people will sit back & let the environment be destroyed without a fight.

378. Name: Robb Foster on 2019-07-02 23:51:39
Comments: I think an Environmental Impact Statement is absolutely necessary before this project continues.

379. Name: Cate Dingley on 2019-07-03 20:50:58
Comments: Inform the public and allow proper time for an EIS before burning, it's the right thing to do.

380. Name: Giselle Piburn on 2019-07-04 02:36:52
Comments: Please reconsider this huge burn!

381. Name: Sujata on 2019-07-04 02:43:17
Comments:

Date submitted (Mountain Standard Time): 7/10/2019 12:00:00 AM

First name: Sam

Last name: Hitt

Organization:

Title:

Comments:

July 10, 2019

Mr. James Melonas, Forest Supervisor USDA Forest Service

Santa Fe National Forest 11 Forest Lane

Santa Fe, New Mexico 87508

delivery via email: jmelonas@fs.fed.us , comments-southwestern-santafe@fs.fed.us re: Comments on Santa Fe Mountains Landscape Resiliency Project Scoping Report

Dear James:

The following are comments to the Scoping Report issued June 10, 2019 for the Santa Fe Mountains Landscape Resiliency Project (Project) located on the Espanola and Pecos/Las Vegas Ranger Districts, Santa Fe National Forest (SFNF). Please accept these comments on behalf of the Santa Fe Forest Coalition, Wild Watershed and the nearly 500 citizens who signed the attached online and paper petitions requesting that all activities halt in the 107,000 acre Greater Santa Fe Fireshed until an Environmental Impact Statement (EIS) is prepared. The 30-day comments period ends July 10, 2019 making these comments timely.

The Santa Fe Forest Coalition is an all volunteer nonprofit that educates the public, the media and policy makers on critical issues concerning forest and wildlife preservation in New Mexico. Member groups include Wild Watershed, Once a Forest, Multiple Chemical Sensitivities Taskforce, La Cueva Guardians, Tree Huggers Santa Fe and others. Wild Watershed is an all volunteer organization focused on aquatic conservation and wilderness preservation.

These comments are constrained by the minimal 30-day comment period. The SFNF has offered no justification for limiting public involvement in scoping to such a degree. Due to lack of time important issues may have been overlooked and the full implication of others unrealized.

Therefore, these comments are filed under protest.

1. SIGNIFIANT IMPACTS TO INVENTORIED ROADLESS AREAS REQUIRE DISCLOSURE IN AN ENVIRONMENTAL IMPACT STATEMENT

As can be seen from the following history, the SFNF has consistently failed to comply with the National Environmental Policy Act's (NEPA) requirement to disclose and analyze the cumulative impacts of repeated clearing and annual burning over vast stretches of inventoried roadless areas (IRAs) adjacent to the Pecos Wilderness above Santa Fe. William Odum (1982) succinctly described the resulting environmental degradation from cumulative effects as [ldquo]the tyranny of small decisions.[rdquo]

In 2001 the SFNF prepared an environmental impact statement (EIS) to analyze the impacts of what turned out to be endless clearing and burning of forests in the Santa Fe Municipal Watershed. It was hardly mentioned during the protracted analysis for this project that nearly all 15,000 acres (6720 acres within Pecos Wilderness) were national forest inventoried roadless lands.

In 2004, the Hyde Park Wildland Urban Interface Project proposed to clear and burn nearly 2000 acres of inventoried roadless forests to the north of the watershed. That project was successfully appealed twice for failure to consider impacts to IRAs. Hyde Park was resurrected soon after

President Trump assumed office. In March of 2018 it was approved using a categorical exclusion for qualifying projects under an amendment to the 2014 Farm Bill. Within weeks another project impacting IRAs, the Pacheco Canyon Forest Resiliency Project, was also approved using the same expedited decision making process.

Despite repeated promises by the Washington office that the Forest Service would comply with all environmental laws, including NEPA, attorneys for the Forest Service argued in *Wild Watershed v. Hurlocker* that Congress had created a [ldquo]statutory exemption[rdquo] from NEPA and therefore disclosure and analysis of cumulative impacts was not required.

The Project discussed here, consistent with this history, failed during scoping to even identify protection of IRAs as a potential issue. No information was presented to the public concerning the delineation, location and potential impact to IRAs. A SFNF official said in an email [ldquo]. . .

IRAs are not a layer in the GIS data sets available on our webpage. I'm afraid I've come up empty-handed.[rdquo] According to a former Forest Service planner, this is consistent with a longstanding practice of [ldquo]data-free analysis and analysis-free decision-making[rdquo] that has plagued the agency for decades (Fairbanks 2005).

This history reveals an institutional bias within the agency as well as a deep local antipathy to roadless area conservation. It is relevant, then, to review the long struggle to preserve roadless areas and wilderness. This review is intended not only to prompt a re-evaluation of the agency[rsquo]s policy of denial and obstruction but also to honor those who have worked for decades to protect the well-springs of life found in untrammelled wild lands.

In particular, we pay homage to our friend and colleague Carol Johnson for her tireless efforts to preserve the Pecos Wilderness and the surrounding forests that will be impacted by this Project.

Review of Roadless Area Conservation

The U.S. Forest Service Roadless Rule prohibits timber harvest in IRAs with certain limited exceptions. 36 CFR [sect] 294.13. If history is any indication, this Project will likely be approved based upon the following exception: [ldquo]To maintain or restore the characteristics of ecosystem composition and structure, such as to reduce the risk of uncharacteristic wildfire effects, within the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period.[rdquo]

Multiple lines of evidence suggests that dry mixed conifer and ponderosa pine forests such as those found in the Project area are shaped and characterized by periodic mixed-severity wildfires that include ecologically significant amounts of weather-driven, high-severity fire. It is well established that large, infrequent, and quite often severe natural disturbances shape and lend complex structure to historical landscapes, and thereby maintain the biological diversity (see Dr. DellaSala comments to the Project, pp. 6-9)

In 1964, Congress passed the Wilderness Act, creating the National Wilderness Preservation System. In addition to designating 9 million acres of National Forest System land as Wilderness, the Act directed the Secretary of Agriculture to complete a study of 34 administratively designated "primitive areas" and determine their suitability for Wilderness designation by September 2, 1974.

In 1971 the Forest Service expanded the scope of the review to include all roadless areas in the inventory and evaluation. This process was known as the Roadless Area Review and Evaluation (RARE). The Final Environmental Impact Statement (FEIS) for RARE was released in 1973.

The FEIS identified 247 roadless areas to be studied further for possible wilderness status.

The National Forest Management Act of 1976 (NFMA) replaced that evaluation process in place at the time with the requirement for an integrated Land and Resource Management Plan (LRMP) for each forest and grassland. By June of 1977, concerns were expressed that the NFMA land management

planning process would be too slow to allow timely completion of review of the 247 study areas identified in RARE. Concerns were also raised that some areas might have been overlooked, and that RARE did not adequately inventory the National Grasslands and the Eastern National Forests.

In response to these concerns, the Secretary of Agriculture initiated a nationwide administrative study of roadless areas referred to as RARE II. The FEIS for RARE II was released in January of 1979.

In June, 1979 the State of California initiated a lawsuit (*California v. Block*) challenging a RARE II decision to designate certain roadless areas in California as non-wilderness. In June of 1980 the U.S District Court ruled that the RARE II FEIS did not comply with NEPA. The Ninth Circuit Court of Appeals affirmed this decision and identified the following deficiencies:

1) failure to identify distinguishing wilderness characteristics of each roadless area; 2) failure to adequately assess the wilderness value of each area and to evaluate the impact of non-wilderness designation upon each area's wilderness characteristics and value; 3) failure to consider the effect of non-wilderness classification upon future wilderness opportunities; and 4) failure to weigh the economic benefit attributable to development in each area against the wilderness loss each area will suffer from development.

The decision was largely based on the Court's interpretation that NFMA regulations

precluded further consideration of wilderness features in assessing environmental consequences of development projects in areas not recommended for wilderness. Because of this lack of discretion, the Court concluded that "[t]he critical decision to commit these areas for non-wilderness uses, at least for the next ten to fifteen years is irreversible and irretrievable.[rdquo]

Following the Circuit Court's decision, the Department of Agriculture revised the

NFMA regulations regarding evaluation of roadless areas in forest planning (36 CFR [sect] 219.17 [1982]). These changes included: 1) establishment of new forest planning procedures for evaluating roadless lands for recommendation as wilderness; and 2) removal of language that the Ninth Circuit Court interpreted to mean the Forest Service was foreclosed from considering the roadless character of a roadless area if specific projects were proposed and evaluated in areas allocated to non-wilderness management.

The 1982 NFMA regulations allowed adequate discretion over development of Inventoried Roadless Areas, after approval of forest plans, by making non-wilderness allocation of roadless lands not a "critical decision" or an "irreversible and irretrievable" commitment of resources to development.

This legal premise has since been affirmed by the Ninth Circuit in the case *City of Tenakee Springs v. Block*, 778 F.2d 1402 (9th Cir.1985), where the Court found that non-wilderness multiple-use management prescriptions on the Tongass National Forest Plan were permissive rather than a mandate or commitment to development. The concurring opinion also agreed that NEPA documents for projects proposed under the forest plan in roadless areas assigned to a non-wilderness management prescription must examine the issue of whether to treat, not just how to treat, such areas in order to comply with the Wilderness Act.

In 1994 the 9th Circuit Court of Appeals further addressed the need to analyze the effects of proposed treatment areas to roadless areas. In *Smith v. USFS*, the Court reaffirmed the legal requirement to consider a no-action alternative when proposing such treatments, citing *Idaho Conservation*, 956 F.2d at 1515, in order to [rdquo]preserve the possibility that the area might someday be designated as wilderness.[rdquo]

The 9th Circuit again reaffirmed the significance of development in roadless areas in *Lands Council v. Martin* (2008), where the Court states:

In Smith, 33 F.3d at 1078-79, we held that there are at least two separate reasons why logging in roadless areas is environmentally significant, so that its environmental consequences must be considered. First, roadless areas have certain attributes that must be analyzed. Those attributes, such as water resources, soils, wildlife habitat, and recreation opportunities, possess independent environmental significance. Second, roadless areas are significant because of their potential for designation as wilderness areas under the Wilderness Act of 1964, 16 U.S.C. [sect][sect] 1131-1136. Lands Council, 479 F. 3d at 640; Smith, 33 F.3d at 1078-79.

According to the Forest Service analysis of these legal precedents, dealing with their continuing obligations under the Wilderness Act:

Based on court history and past direction from the Chief, projects within roadless areas must analyze the environmental consequences, including irreversible and irretrievable commitment of resources on roadless area attributes, and the effects for potential designation as wilderness under the Wilderness Act of 1964.... The purpose of the

analysis on the roadless resource is to disclose potential effects to roadless and wilderness attributes and determine if, or to what extent it might affect future consideration for wilderness recommendations.

This analysis focuses on the potential effects of project activities on wilderness characteristics as defined in the Forest Service Handbook (FSH) 1909.12 (72.1). These wilderness characteristics include the following:

- 1) Natural [ndash] The extent to which long-term ecological processes are intact and operating;
- 2) Undeveloped [ndash] The degree to which the impacts documented in natural integrity are apparent to most visitors;
- 3) Outstanding opportunities for solitude or primitive unconfined recreation [ndash] Solitude is a personal, subjective value defined as the isolation from sights, sounds, and presence of others and from developments and evidence of humans. Primitive recreation is characterized by meeting nature on its own terms, without comfort and convenience of facilities;
- 4) Special features and values [ndash] Unique ecological, geographical, scenic, and historical features of an area;
- 5) Manageability [ndash] The ability to manage an area for wilderness consideration and maintain wilderness attributes.

Concerning the potential for cumulative effects of proposed treatments within an IRA, the Forest Service has described the following steps:

- 1) Identify the cumulative effects boundary in space and in time;
- 2) Describe the cumulative effects boundary [ndash] this will be the roadless area expanse. Describe what factors this is based on;
- 3) Describe the temporal boundary [ndash] this will be how long effects of the action will occur on the landscape. Describe what factors this is based on; and
- 4) Describe the past actions and their effects on current conditions. Describe what past actions were considered and summarize how they affected the five wilderness attributes described above. If there are comments that other past actions should have been considered discuss why they were or were not;
- 5) Contrast the effects of proposed actions with past actions. Describe how past actions were developed in relation to the roadless resource and how this proposal considered the roadless resource in its design, e.g. summarize the past actions that occurred, whether or not the actions occurred before or after the forest plan was established, whether or not those past actions were designed to minimize effects on the roadless resources (and if so whether or not they were effective) and how this proposed action contrast with those past actions;
- 6) Describe the effects of ongoing and reasonably foreseeable actions. Identify what actions were considered. If there are comments that others should have been considered discuss why they were or were not. Describe how these actions could affect the five wilderness attributes;
- 7) Describe the combined effects from past, proposed, ongoing, and reasonably foreseeable future actions. Describe the cumulative effects of the proposed action, in addition to the past, present and reasonably foreseeable actions on the five wilderness attributes. Describe whether or not there would be irreversible or irretrievable commitment of resources.

National forest roadless lands are heralded for their conservation values. Those values are described at length in the preamble of the Roadless Area Conservation Rule (RACR) and in the Final Environmental Impact Statement (FEIS) for the RACR. They include: high quality or undisturbed soil, water, and air; sources of public drinking water; diverse plant and animal communities; habitat for threatened, endangered, proposed, candidate, and sensitive species and for those species dependent on large, undisturbed areas of land; primitive, semi-primitive non-motorized, and semi-primitive motorized classes of dispersed recreation; reference landscapes; natural appearing landscapes with high scenic quality; traditional cultural properties and sacred sites; and other locally identified unique characteristics (e.g., uncommon geological formations, unique wetland complexes, exceptional hunting and fishing opportunities).

Roadless lands are also responsible for higher quality water and watersheds. Anderson et al. 2012 assessed the relationship of watershed condition and land management status, and found a strong spatial association between watershed health and protective designations. DellaSalla et al. 2011 found that undeveloped and roadless watersheds are important for supplying downstream users with high-quality drinking water, and that developing those watersheds comes at significant costs

associated with declining water quality and availability. Protecting and connecting undeveloped areas is also an important action agencies can take to enhance climate change adaptation.

NEPA requires federal agencies[rsquo] environmental analysis to consider [ldquo]any adverse environmental effects which cannot be avoided.[rdquo] 42 U.S.C. [sect] 4332(2)(C)(ii). When several

actions may have cumulative or synergistic environmental impacts, Forest Service must consider these actions together and prepare a more comprehensive environmental analysis. 40 C.F.R. [sect] 1508.8(b). Cumulative impacts are [ldquo]the impact[s] on the environment which result 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 understands such actions.[rdquo] 40 C.F.R. [sect] 1508.7.

This Project is part of a much larger and more ambitious program to [ldquo]change forest conditions[rdquo] on the 107,000 acre Greater Santa Fe Fireshed, a large proportion of which is within IRAs. These actions in aggregate will likely cause significant adverse direct, indirect and cumulative impacts on the human environment[mdash]including but not limited to significant health effects for the surrounding community from regular and repetitive prescribed burns, as well as to wildlife communities that are commonly associated with dense forests like those the Project is intended to substantially alter, and on the wilderness characteristics, whose use and enjoyment is appreciated by many who value untrammeled natural amenities found in the roadless areas.

It is also likely that there are substantial [ldquo]unroaded[rdquo] areas that could become inventoried roadless lands and recommended for wilderness designation in the future. These lands play an important ecological role in ensuring the persistence of species, providing connectivity and ensuring watershed functionality.

Maintaining and enhancing the roadless character of these lands will contribute to the achievement of the substantive provisions in sections 219.8, 219.9, and 219.10 of the 2012 forest planning rule. The improvement of 94 miles of road may have significant damaging impacts on the natural values and scenic integrity of these unroaded lands by increasing access, altering water flows and reducing wildlife security.

Therefore, the Project planning team must identify, delineate and quantify unroaded lands and take the required hard look to determine if planned clearing and burning activities may have significant impacts. We strongly oppose any developments in unroaded portions of the Project area until potential impacts can be comprehensively disclosed and analyzed.

In summary, the cumulative effects of clearing and burning thousands of acres over many decades in unroaded, lightly-roaded and IRAs eligible for wilderness must be analyzed and disclosed in an EIS.

2. PROJECT PURPOSE AND NEED ARE INCONSISTENT WITH HFRA'S REQUIREMENT TO RETAIN LARGE AND OLD TREES AND NFMA'S CONSISTENCY STANDARD

Projects authorized under Section 602 of the Healthy Forest Restoration Act (HFRA) may only be implemented in a manner that maximizes the retention of old growth and large trees, as appropriate for the forest type, to the extent that the trees promote stands that are resilient to insects and disease. 16 U.S.C. [sect] 6591a(e).

In addition, the HFRA requires that the Forest Service: "fully maintain, or contribute toward the restoration of, the structure and composition of old growth stands according to the pre-fire suppression old growth conditions characteristic of the forest type, taking into account the contribution of the stand to landscape fire adaptation and watershed health, and retaining the large trees contributing to old growth structure." <https://www.fs.fed.us/projects/hfi/field-guide/web/page11.php>.

The National Forest Management Act (NFMA) also imposes on the Forest Service a duty to ensure that any specific project in the forest complies with the land resource management plan of the entire forest, in this case the SFNF Plan. 16 U.S.C [sect] 1604(i).

The SFNF Plan's old growth standards begin with an admission of uncertainty, followed by a commitment to learn and identify old growth in all project planning:

Old growth is not well understood in the Southwest. Consequently, as knowledge is gained the characteristics and inherent values of old growth stands will be better defined. Site specific identification of old growth will occur during ecosystem area analysis or project planning. (SFNF Plan p. 67)

Uncertainty prompts our concerns. First, why is only the bare minimum of 20 percent of the project area—the floor established by the SFNF Plan—being managed for old growth?

Managing for minimums gives no room for error and errors are inevitable given the acknowledged uncertainty and unprecedented scale and intensity of proposed activities. How is managing for minimums consistent with the SFNF Plan that requires projects to strive to create or sustain as much old growth compositional, structural, and functional flow as possible over time at multiple-area scales?

It is unclear how old growth can be sustained as required by the SFNF Plan when as much as 30 percent of remainder trees left after aggressive clearing die in prescribed fires; more from wind throw in newly opened stands. Also, Ips beetle populations increase dramatically in untreated slash during dry conditions often overwhelming old growth ponderosa pines.

Second, how does managing for minimum old growth, together with the admitted lack of understanding, maximize the retention of old growth and large trees required by HFRA? Third,

how does discretionary cutting of trees up to 24 inches dbh maximize the retention of old growth?

Fourth, how will project-level knowledge be gained to better define the characteristics and inherent values of old growth stands? For example, how have the SFNF Plan's parameters for determining old growth been refined for this Project? These include: number of live trees in main canopy; variation in tree diameters; dead trees (standing snags and downed logs); tree decadence; number of tree canopies; total basal area; and, total percent canopy cover. Five, will project-level monitoring be done to ensure compliance with the HFRA old growth retention standard?

3. THE SCOPING DOCUMENT LACKS THE NECESSARY SITE-SPECIFIC DETAIL TO COMPLY WITH NEPA

The National Environmental Policy Act (NEPA) is our basic national charter for protection of the environment. 40 C.F.R. [sect] 1500.1. In enacting NEPA, Congress recognized the [ldquo]profound impact[rdquo] of human activities, including [ldquo]resource exploitation,[rdquo] on the environment and declared a national policy [ldquo]to create and maintain conditions under which man and nature can exist in productive harmony.[rdquo] 42 U.S.C. [sect] 4331(a).

The statute has two fundamental two goals: (1) to ensure that the agency will have detailed information on significant environmental impacts when it makes decisions; and (2) to guarantee that this information will be available to a larger audience. *Envtl. Prot. Info. Ctr. v. Blackwell*, 389 F. Supp. 2d 1174, 1184 (N.D. Cal. 2004) (quoting *Neighbors of Cuddy Mt. v. Alexander*, 303 F.3d 1059, 1063 (9th Cir. 2002)).

Analyzing and disclosing site-specific impacts is critical to achieve these goals because when, where and how activities occur on a landscape strongly determines the nature of the impact.

Location data is especially critical to the site-specific analysis NEPA requires. *New Mexico ex rel Richardson*, 565 F.3d at 706 and 707.

NEPA further mandates that the agency provide the public [ldquo][lsquo]the underlying environmental data[rsquo] from which the Forest Service develop[ed] its opinions and arrive[d] at its decisions.[rdquo] *WildEarth Guardians v. Mont. Snowmobile Ass[rsquo]n*, 790 F.3d 920, 925 (9th Cir. 2015).

In this case, the SFNF failed to disclose site-specific impacts and failed to provide the public with any underlying data supporting the Project[rsquo]s purpose and need. In particular, the scoping document does not disclose when, where, how much, what sequence or the specific location of tree clearing, burning and road improvements. Nor does it provide detailed disclosure of the necessary mitigation measures designed to lessen the impacts of Project implementation.

Instead, in seeking flexibility to respond to changing conditions, the SFNF apparently intends to postpone site-specific project design and analysis until after the agency decision is made. This upends NEPA[rsquo]s central purpose that agencies look before they leap. More importantly, keeping essential details of Project implementation under wraps until after the close of the comment period prevents the public from being involved [ldquo]to the fullest extent possible . . . in decisions which affect the quality of the human environment.[rdquo] 40 C.F.R. [sect] 1500.2(d).

As noted earlier, no information was presented to the public concerning the delineation, location and potential impact to IRAs. The impacts of tree clearing and burning projects in Hyde Park, Pacheco Canyon and the Santa Fe Municipal Watershed were not revealed despite these on-going projects being adjacent to or enclosed within the Project area. Nor were reasonably foreseeable future actions within the 107,000 acre Greater Santa Fe Fireshed disclosed. Without this information, the public is left in the dark concerning the cumulative impacts of a host of environmentally significant interconnected issues.

The Project proposes to upgrade 94 miles little used roads that will likely significantly impact soils, water quality, unfragmented habitat blocks, critical habitats, and fire risk. This is a significant issue for environmental analysis, yet many details are lacking. Portions of the project area feature steep slopes where improved roads and ground-based tree clearing activities may permanently impair soil productivity even if their use is temporary (Gucinski et al. 2001). Road-related soil erosion is a chronic source of sediment that can limit water quality and affect habitat for riparian-dependent species.

Road-stream crossings have high potential to adversely impact water quality (Endicott 2008) but the location of crossings is not disclosed. Road construction, tree clearing and burning may combine to increase overland water flow and runoff by removing vegetation and altering physical and chemical properties of soil, which can permanently alter watershed function (Elliot 2010 and Robichaud et al. 2010).

The scoping document does not disclose the presence of unauthorized roads and trails that may be causing significant resource damage. Simply blocking entrances along other measures is often ineffective at preventing longstanding unauthorized use or addressing resource concerns. This is a significant issue that requires detailed disclosure of the extent, location and impacts. The lack of specificity precludes our ability to provide meaningful comments or determine the efficacy of the mitigation measures.

The extent of unauthorized roads should have been informed by the SFNF forest-wide Travel Analysis Report (TAR) generated to support compliance with Subpart A of the Travel Management Rule, or by a project specific TAR. Subpart A also directs the agency to [ldquo]identify the roads on lands under Forest Service jurisdiction that are no longer needed,[rdquo] and therefore should be closed or decommissioned. A project specific analysis must evaluate all unneeded roads in the Project area for closure or decommissioning.

4. PROTECTION OF THE UNIQUE POPULATION OF SWWP IS A SIGNIFICANT ISSUE THAT WAS NOT IDENTIFIED IN THE SCOPING DOCUMENT

In 2009 the Santa Fe Municipal Watershed 20 Year Protection Plan recommended that a self-sustaining population of Southwestern White Pine (SWWP) be protected during on-going maintenance activities. To quote from the Protection Plan:

During planning of restoration treatments a concern was expressed for the fate of Southwestern white pines in the watershed, because populations have suffered in the West in recent years due to the exotic white pine blister rust. White pines in the watershed have been reproducing successfully in spite of the threat of blister rust and thus the Santa Fe Watershed has been identified as a possible sub-regional refugia for this tree species. The protection of southwestern white pines should continue to be an objective throughout long-term prescribed burning maintenance. (p. 20)

The SWWP refugia mentioned in this plan extends into the Project area. At the northern limits of its distribution, SWWP may be exhibiting unique resistance to white pine blister rust. Removing individuals that are genetically resistant before it can be determined their value in countering the disease would be a significant loss to regional biodiversity.

Also, this Project must be consistent with the SFNF Plan[rsquo]s reforestation standards that require a minimum of 120 SWWP remain per acre following clearing and burning (replacement page 69a).

Unfortunately, the Forest Service has a long history of ignoring evolutionary processes such as natural selection. In its formative years the agency encouraged land owners along the eastern seaboard to cut down all American chestnuts before they were killed by an exotic blight. As a result genetically resistant trees that may have allowed the species to survive and adapt were lost (Kelly 1924). A more recent example is salvage logging of beetle killed white bark pine in the northern Rockies (Six et al. 2018).

This vital issue was not mentioned during scoping despite the SFNF being alerted last December to the loss of thousands of SWWP during the initial clearing of the Hyde Park WUI project (see attached letter to Melonas Dec. 18, 2018).

5. A VIEWSHED CORRIDOR PLAN MUST BE PREPARED AND OTHER MITIGATION MEASURES TAKEN TO BE CONSISTENT WITH THE SFNF FOREST PLAN.

NFMA requires that any action taken at the project-specific level must comply with the national forest[rsquo]s Forest Plan. 16 U.S.C. Sec. 1604(i). Forest Service procedures also require consistency with the Forest Land and Resource Management Plan (FSM 1922.12 and FSH 1909.12).

The SFNF Plan for management area D (p. 113) requires that site-specific projects [ldquo]develop Viewshed Corridor Plans as a part of project level planning for all vegetation management projects.[rdquo] The Viewshed Corridor Plan must be developed in order to meet the visual quality objective of retention. Management area D (p. 116) also specifies that [ldquo]fuel treatment methods with effects lasting no longer than one year are acceptable.[rdquo] Management area L requires that [ldquo]roads constructed will be closed immediately following the activity, scarified and reseeded.[rdquo] The purpose and need of this Project did not reflect these SFNF Plan requirements.

Please ensure that these SFNF Plan consistency requirements are included in the EIS.

6. A RISK ASSESSMENT REVIEW SHOWED THAT A TNC RISK ASSESSMENT CANNOT BE USED TO SUPPORT WILDFIRE RISK REDUCTION TREATMENTS

A wildfire risk assessment of the Greater Santa Fe Fireshed produced by The Nature Conservancy (TNC) cannot be relied on by the SFNF to support this Project because it did not address the key issue of probability. The review is attached.

It also did not estimate the costs of potentially damaged resources or the cost associated with risk reduction treatments. Further, the TNC study did not address the likelihood that resources would be damaged in the event of a fire or address the effectiveness of risk reduction treatments. The review notes that the likelihood of a wildfire occurring could have been calculated from historic records of wildfire along with consideration of the potential impacts of climate change. But this did not occur.

7. QUESTIONS THAT WERE NOT ADDRESSED DURING PUBLIC MEETINGS

The two public meeting held in conjunction with Project scoping were dominated by SFNF presentations. Time for questions from public was limited. Public meetings where the public is mostly relegated to being an audience does not comport with a fundamental purpose of NEPA which mandates that [ldquo]federal agencies shall to the fullest extent possible . . . encourage and facilitate public involvement in decisions which affect the quality of the human environment.[rdquo] 40

C.F.R. [sect] 1500.2(d). Therefore, we are exercising our public involvement rights during the scoping period by submitting the following substantive questions:

1. PURPOSE AND NEED AND NATIONAL ENVIRONMENTAL POLICY ACT

? Why isn[rsquo]t protecting lives and property the primary purpose of this project? Making vulnerable homes fire-safe and clearing flammable vegetation immediately around structures

are proven strategies.

? Will measures to protect soils, water quality and wildlife habitat be mandatory and enforceable if they are proposed in an Environmental Assessment as opposed to an

Environmental Impact Statement? Please explain the role of mitigation measures in each document.

2. ROADLESS FORESTS AND ROAD IMPROVEMENT

? How many inventoried roadless areas exist in this area? Will they be proposed for Wilderness in the new forest plan? Why weren[rsquo]t project overlays of roadless areas presented in the

scoping document or at public meetings?

? Improving roads will increase human caused fires in this area. Does the SFNF have the capacity of responding to this increase?

? How will road decommissioning [ldquo]restore[rdquo] unneeded roads? Shouldn[rsquo]t unneeded roads be obliterated to protect water quality and wildlife habitat and prevent the spread of invasive plants and access by arsonists and poachers?

? How will ATVs be effectively restricted from newly improved roads?

3. CLIMATE DISRUPTION

? Is the Forest Service allowed to discuss the role that human emissions play in creating a hotter and drier climate in the Southwest? If so, why is climate disruption so rarely addressed by the SFNF?

? Is current climate science being used to analyze the impacts of clearing trees and annual burning?

? Why isn[rsquo]t climate change mentioned as the primary driver of larger and more frequent high-severity fires, not the build up of fuels?

? Why is the aim of this project to restore past forest structure instead of working with natural succession and evolutionary processes to help the forest adapt to a warmer and drier climate?

4. WILDLIFE AND ANCIENT FORESTS

? How will wildlife corridors be maintained in areas cleared and annually burned? Have corridors been identified in the project area?

? Will clearing and burning be restricted in the spring to protect breeding bird nests and other wildlife? If not, please explain why.

? Old growth aspen is important breeding bird habitat. Clearing and burning conifers in the understory will cause significant harm. Will bird populations in old growth aspen habitat be monitored to determine impacts? If not, please explain why.

? Why are the threats of high severity fire to Mexican spotted owl habitat highlighted while it[rsquo]s benefits and the adaptability of the owl to burned forest habitat not discussed? Does the SFNF monitor the Mexican spotted owl population? If so, what are the current trends?

? Why is retaining the minimum allowed old growth the aim of this project when the forest plan requires as much old growth be managed as possible?

? Preservation of old growth and fuel reduction have conflicting aims. How will old growth forests with their dense multistoried and high canopy cover be maintained on a minimum of 20% of the project area?

5. CLEARING TREES AND ANNUAL BURNING

? How many live trees will remain after the initial clearing and burning? How many remainder trees are expected to die in prescribed fires and subsequent wind throw in newly opened

stands?

? Will the legally required regeneration standards for remainder trees be monitored? If so will that data publicly be available?

? Will the size of burned debris piles be limited to protect soils and discourage invasive plants from becoming established?

? Why do spruce/fir and piñon/juniper forests with mixed-severity fire regimes receive the same treatment as ponderosa pine and dry mixed conifer forests with low-severity fire

regimes?

? Why are protection measures for the currently secure but vulnerable Southwestern White Pine population not discussed? Will you cut down genetically resistant white pines before it

can be determined their value in countering white pine blister rust?

? Will on-going livestock grazing impede the goal of restoring low-severity fire regimes?

? Reference conditions are mentioned as being used to establish a desired forest structure.

Please identify the reference sites in the project's Colorado Rockies bioregion.

Respectfully Submitted,

/s/ Sam Hitt Sam Hitt

President SFFC

Founder Wild Watershed

REFERENCES

Anderson, H. Mike et al., 2012. Watershed Health in Wilderness, Roadless, and Roaded Areas of the National Forest System. The Wilderness Society, Washington DC. <http://wilderness.org/resource/watershed-health-wilderness-roadless-and-roaded-areas-national-forest-system>.

DellaSala, D., J. Karr, and D. Olson. Roadless areas and clean water. *Journal of Soil and Water Conservation*, vol. 66, no. 3. May/June 2011.

Elliot, W.J. 2010. Effects of forest biomass use on watershed processes in the western United States. *Western Journal of Applied Forestry* 25: 12-17.

Endicott, D. 2008. National Level Assessment of Water Quality Impairments Related to Forest Roads and Their Prevention by Best Management Practices. Final report to U.S. Environmental Protection Agency, Contract No. EP-C-05-066, Task Order 002. Great Lakes Environmental Ctr.: Traverse City, MI. December. 259 pp

Fairbanks, R. 2005. Why the Forest Service needs whistleblowers, *Forest Magazine*, 7:1.

Friederici, P. (Ed.). 2003. *Ecological Restoration of Southwestern Ponderosa Pine Forests*. Island Press: Washington, DC.

Kaufmann, M.R., W.H. Moir, and W.W. Covington. 1992. Old-growth forests: what do we know about their ecology and management in the Southwest and Rocky Mountain regions? Pp. 1-10 in:

M.R. Kaufmann, W.H. Moir, and R.L. Bassett (eds.). Old-Growth Forests in the Southwest and Rocky Mountain Regions: Proceedings from a Workshop (1992). Portal, AZ. USDA For. Serv. Gen. Tech. Rep. RM-213. Fort Collins, CO.

Gucinski, H., M.J. Furniss, R.R. Ziemer and M.H. Brookes (eds.). 2001. Forest Roads: A Synthesis of Scientific Information. USDA For. Serv. Gen. Tech. Rep. PNW-GTR-509. Portland, OR.

Kelly, A.R. Chestnut surviving blight. *Science* 40 (1924): 292-93

Luyssaert, S., E.D. Schulze, A. Bonner, A. Knohl, D. Hessenmüller, B.E. Law, P. Ciais and J. Grace. 2008. Old-growth forests as global carbon sinks. *Nature* 455: 213-15.

Odum W.E. 1982. Environmental degradation and the tyranny of small decisions. *Bioscience* 33:728-729.

Robichaud, P.R., L.H. MacDonald and R.B. Foltz. 2010. Fuel management and erosion. Ch. 5 in:

W.J. Elliot, I.S. Miller and L. Audin (eds.). *Cumulative Watershed Effects of Fuel Management in the Western United States*.

GTR-231. Fort Collins, CO.

Six, D., C. Vergobbi and M. Cutter. 2018. Are survivors different? Genetic-based selection of trees by mountain pine beetle during climate change-driven outbreaks in a high-elevation pine forest. *Frontiers in Plant Science*