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January 23, 2023

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Forest Supervisor
Santa Fe National Forest
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Santa Fe, NM 87508

Sandra Imler-Jacquez
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Submitted electronically via objections-southwestern-regional-office@usda.gov

RE: OBJECTION TO THE SANTA FE MOUNTAINS LANDSCAPE RESILIENCY PROJECT DECISION NOTICE AND FINDING OF NO SIGNIFICANT IMPACT

Dear Mr. Duran and Ms. Imler-Jacquez:

Defenders of Wildlife ("Defenders") is filing an official objection to the **Decision Notice and Finding of No Significant Impact ("FONSI")** for the Santa Fe Mountains Landscape Resiliency Project ("Project"), located in the Las Vegas and Espanola Ranger Districts in the Santa Fe National Forest. Defenders previously submitted comments on the Draft EA on October 29, 2021, and also filed an objection to the Draft Decision Notice and Finding of No Significant Impact on May 12, 2022.

The following objection is submitted on behalf of Defenders, which is a national, nonprofit membership organization dedicated to the protection of all native animals and plants in their natural communities. Defenders is committed to protecting wild lands and wildlife in New Mexico, has 22,328 members and supporters in New Mexico, and has a Southwest Program with a headquarters office in Santa Fe, NM.

We would like to thank the Forest Service for its dedication to improving ecosystem resilience in the Santa Fe National Forest. Defenders supports efforts to restore the natural ecosystem process if done in a manner that does not negatively affect sensitive and imperiled species, water quality, human health and other valuable resources. We recognize and appreciate the harm that uncharacteristic wildfire can cause to forest ecosystems, public safety, wildlife, human infrastructure, and economic interests, and we support science-based management of forests to reduce undesirable hazards.

However, we object to the Decision Notice and FONSI for the Project and the accompanying EA. First, given the size and scope of the Project and the significant impacts it will have on the forest, wildlife, and the quality of the human environment, the EA was not a legally adequate analysis of the impacts. Thus,

to comply with the National Environmental Policy Act ("NEPA") the Forest Service must prepare an Environmental Impact Statement ("EIS") before proceeding with the Project.

Second, a condition-based analysis is inappropriate for this project because it does not provide enough specificity for the Forest Service to determine the effects of the Project nor for the public to meaningfully participate.

Third, the Project fails to include proper protection for canopy-dependent songbirds including the Grace's Warbler (*Setophaga graciae*), Pinyon Jay (*Gymnorhinus cyanocephalus*), and Virginia's Warbler (*Leiothlypis virginiae*).

I. The Forest Service did not provide a full Environmental Impact Statement for the Project as required by NEPA.

NEPA requires all federal agencies to prepare a full EIS if a proposed project is a "major Federal action significantly affecting the human environment (42 U.S.C. § 4332(C)." The Council on Environmental Quality interprets "major" to have the same meaning as significantly (42 U.S.C. § 1508.18). To determine if an action is significant "requires consideration of both context and intensity (42 U.S.C. at § 1508.27)." A context analysis considers the project's effects on "society as a whole (human, national), the affected region, the affected interests, and the locality (42 U.S.C. § 1508.27.)." An intensity analysis considers the "severity of impact" of the project. (42 U.S.C. § 1508.27.). The Council on Environmental Quality lists ten factors that inform an intensity analysis:

1. Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.
2. The degree to which the proposed action affects public health or safety.
3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.
5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.
6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.
7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.
8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.
9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.
10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment (40 C.F.R 1508.27(b)).

For the proposed Project, factors one, two, three, four and five all contribute to the conclusion that an EIS was required. The following describes how each of those factors are met and prove that a full EIS is warranted.

Factor 1 is met because the Project's beneficial and adverse effects are significant due to the extended duration of the project, the intrusiveness of the proposed treatments, and the extensive area of the project. The Project's long duration will be significant with lasting effects on the Project area. The long-term goal of the Project is to "reestablish historic low-intensity fire" to the landscape, which will take multiple treatments spread out over 10 and up to 25 years. Thinning treatments are expected to occur over the next 10 years, though the EA states that they could occur for up to 25 years. For both thinned and unthinned areas, the EA predicts that maintenance burning will occur every 5 to 10 years, with no end date. Given the long-term nature of the Project and its purpose to "improve the ecosystem resilience . . . to future disturbances" the impacts will intentionally be significant.

The extensive thinning and prescribed burning proposed will produce significant impacts to the landscape, species, and recreational values of the Project area. Whether the impacts are beneficial or detrimental, the fact that large swaths of forest will be burned, sometimes in fire intolerant communities, will significantly affect the ecological integrity of treatment areas. The Project area covers 50,566 acres, or 5.5% of the combined acreage of the Española and Pecos/Las Vegas Ranger Districts. While there is no size threshold that automatically makes a federal action significant, in this case, the Project's size contributes to a conclusion that it is significant.

Factor 2 is met because the Project's potential to affect public health and safety is significant because the extensive prescribed burning will create smoke that will likely affect air quality in the area and the potential for wildfire in the region. Due to its proximity to Santa Fe and surrounding communities, prescribed burns in the Project area will create smokey conditions in highly populated areas, negatively affecting the health of those subjected to the smoke.

Factor 3 is met because the Project's potential to affect ecologically critical areas for canopy dependent bird species, including the Grace's Warbler, Pinyon Jay, and Virginia's Warbler, is significant as the proposed Project does not provide adequate mitigation measures for the species and habitat, they depend on to thrive (see section III for more information).

Factor 4 is met because the Project's potential effects have proved to be highly controversial among the communities that will be directly impacted. There is scientific evidence that directly contradicts the findings of the EA and the public strongly opposes some of the treatment plans. Even with public support, an action may be "highly controversial" if there is "substantial dispute as to the size, nature, or effect of the action (Middle Rio Grande Conservancy Dist. v. Norton, 294 F.3d 1220, 1229 (10th Cir. 2002)."

Factor 5 is met because the possible effects on the human environment are highly uncertain and involve potentially unknown risks.

II. The condition-based approach to land management for the Project does not comply with NEPA because it does not include specificity "to ensure informed decision making and meaningful public participation."

Condition-based management is "a system of management practices based on implementation of specific

design elements from a broader Proposed Action, where the design elements vary according to a range of on-the-ground conditions in order to meet intended outcomes." While condition-based management aims to adapt to dynamic ecosystem conditions, in this case, it prevents the public from being able "to identify where th[e] activities will take place in relation to "important resource values in the Project area (See Southeast Alaska Conservation Council v. United States Forest Serv., 443 F. Supp. 3d 995, 1010 (D. Alaska 2020) holding the Forest Service's EIS inadequate because it did not include site-specific impacts analysis for timber sales on the Tongass National Forest). Within the Project area, there are a number of bird species that rely on higher canopy cover or are sensitive to thinning including sensitive or threatened bird species—the Mexican Spotted Owl, Northern Goshawk, Pinyon Jay, Grace's Warbler, Virginia's Warbler—for which neither the Forest Service nor the public can adequately determine the potential impacts of the Project because individual treatment locations are undetermined. While the Project includes design features and mitigation measures that address impacts to Mexican spotted owl and Northern Goshawk, there is no such tool for Pinyon Jay, Grace's Warbler, Virginia's Warbler, or other canopy-dependent songbirds.

Further, there is no way of determining where treatments may occur within the Project area because the EA only includes "potential vegetation thinning and prescribed fire treatment units." Thus, while the maps presented in the EA *may* represent treatment units, their boundaries are subject to change. By failing to definitively delimit treatment units, the EA fails to provide the public with a meaningful opportunity to participate in the NEPA process. Without knowing where within the Project area treatments will occur, neither the public nor the Forest Service can determine if and how treatments will affect sensitive species such as the Pinyon Jay, Grace's Warbler, and Virginia's Warbler. If the treatment units were more specific and definitive, the public could identify where treatments will occur in relation to sensitive species' occupied or essential habitats.

III. The Project does not include design features and mitigation measures to adequately preserve habitat for forest bird species including the imperiled Pinyon Jay, Grace's Warbler, and Virginia's Warbler.

According to a scientific analysis conducted by the New Mexico Avian Conservation Partners (NMACP), which is a coalition of bird experts from a variety of governmental and non-governmental organizations, the three ecosystems with the largest number of imperiled bird species in New Mexico are the three ecosystems that will be significantly altered by this Project: piñon-juniper woodlands, ponderosa pine forests, and mixed-conifer forests. Some of the most imperiled species in these ecosystems, including the Pinyon Jay, Grace's Warbler, and Virginia's Warbler, are dependent upon habitat components that will be significantly altered by this project, including overstory canopy cover and Gambel oak cover.

In addition to being of high conservation concern to the NMACP, the Grace's Warbler, Pinyon Jay, and Virginia's Warbler are also on numerous other lists of bird species of high conservation concern:

- The Pinyon Jay, which has sustained a range-wide population decline greater than 84% since the 1960s (Sauer et al. 2018), is listed on the International Union for the Conservation of Nature (IUCN) Red List, the United States Fish and Wildlife Service (USFWS) Birds of Conservation Concern list (US Fish and Wildlife Service 2021), the New Mexico Department of Game and Fish (NMDGF) list of Species of Greatest Conservation Need (New Mexico Department of Game and Fish 2016), and the Partners in Flight (PIF) Watch List (Rosenberg et al. 2016). The Pinyon Jay has also been petitioned for federal listing under the U.S. Endangered Species Act by Defenders of Wildlife (2022).

- The Grace's Warbler, which has sustained a population decline greater than 52% since the 1960s (Sauer et al. 2018), is listed on the USFWS Birds of Conservation Concern list (US Fish and Wildlife Service 2021), the NMDGF list of Species of Greatest Conservation Need (New Mexico Department of Game and Fish 2016), and the PIF Watch List (Rosenberg et al. 2016).
- The Virginia's Warbler, which has sustained a population decline of approximately 40% since the 1960s (Sauer et al. 2018), is listed on the USFWS Birds of Conservation Concern list (U.S. Fish and Wildlife Service 2021), the NMDGF list of Species of Greatest Conservation Need (New Mexico Department of Game and Fish 2016), and the PIF Watch List (Rosenberg et al. 2016).

Below is a list of reasons why the Project fails to protect, and will have significant negative effects on, these imperiled bird species:

- **Pinyon Jay:**
  - Pinyon Jay flocks nest together in traditional nesting locations that are usually in the same general location every year (Johnson and Balda 2020). Science shows that thinning in traditional Pinyon Jay nesting sites causes Pinyon Jays to abandon the site (Johnson et al. 2018). Surveying for, and protecting, traditional nesting sites is critical for the conservation of Pinyon Jays (Johnson and Balda 2018, Johnson and Balda 2020, Johnson et al. 2020, Somershoe et al. 2020), but the Project fails to include a comprehensive Pinyon Jay nesting survey. Without this, thinning will have a significant impact on Pinyon Jay breeding success, further reducing its population size.
  - A Pinyon Jay nesting habitat model shows that areas within the Project constitute some of the best Pinyon Jay nesting habitat in New Mexico, and that quality nesting habitat in New Mexico is very limited (Sadoti and Johnson 2022). The Project, therefore, will likely have significant negative impacts on nesting Pinyon Jays.
  - While they will eat other things, Pinyon Jays primarily eat piñon pine seeds (Johnson and Balda 2020). Science shows that Colorado piñon pine (*Pinus edulis*) trees produce significant amounts of seeds when they are greater than 3.5 inches diameter at breast height (Zlotin and Parmeter 2008, Parmeter et al. 2018). The Project calls for cutting Colorado piñon pine trees up to 12 inches diameter at root crown. This will cause a significant reduction in the Pinyon Jay primary food source. Science shows Pinyon Jays will defer breeding if food resources are limited (Johnson and Balda 2020), so this will have a significant impact on Pinyon Jay reproduction.
  - The best available science shows that thinning significantly reduces stand and landscape seed production (O'Connell 2022) and may even reduce the health and viability of the remaining piñon pine trees (Morillas et al. 2017); this will have a significant impact on Pinyon Jay reproduction.
  - The best available science shows that Pinyon Jay abundance (occupancy, density, etc.) declines in thinned sites (Johnson et al. 2018, Magee et al. 2019). The best available science also shows that other piñon -juniper bird species, including many listed as being of high conservation concern by the NM Avian Conservation Partners, and numerous other entities, also decline after thinning, including the Juniper Titmouse, Gray Vireo, Black-throated Gray Warbler, and Woodhouse's Scrub-Jay (Crow and Van Riper 2010, Bombaci and Pejchar 2016, Gallo and Pejchar 2016, Bombaci et al. 2017, Holmes et al. 2017, Fair et al. 2018, Johnson et al. 2018, Magee et al. 2019).
  - The Project fails to incorporate the potential impacts of climate change. Science shows that north- and east-facing slopes have a higher likelihood of retaining piñon-juniper ecosystems

in the future (Flake and Weisburg 2019), but the project fails to protect these slopes. Additionally, and regardless of aspect, thinning, as mentioned above, is not currently supported by the best available science as a way to increase climate change resilience in piñon-juniper ecosystems.

- The best available science shows that persistent piñon-juniper woodlands have a low-frequency, high-severity fire regime (Romme et al. 2009), and this is acknowledged in the Project EA. This fire regime makes thinning and prescribed fire ecologically inappropriate in persistent P-J woodlands, and will cause negative ecological impacts on imperiled bird species, as well as other wildlife, and the ecosystem as a whole. Activities to reduce fire threat in persistent pinon-juniper woodlands should be restricted to keeping houses in the wildland urban interface (WUI) fire safe, and should not extend to thinning thousands of acres of persistent piñon-juniper woodland on public and private lands.
- The Santa Fe National Forest, including the portions of the forest covered by this Project, currently supports a significant Pinyon Jay population, and climate change models show the Santa Fe National Forest, including the portions of the forest covered by this Project, will likely serve as climate change refugia in the future for Pinyon Jay populations (Van Riper III et al. 2014). Thinning persistent piñon-juniper woodlands will threaten this refugia, and thus further threaten Pinyon Jay populations.

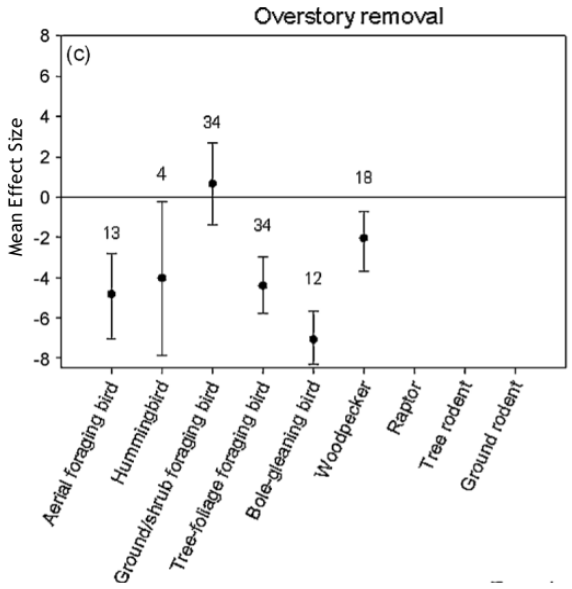
- **Grace's Warbler**
  - Grace's Warbler is a ponderosa pine forest specialist dependent upon adequate overstory canopy cover (Darr and Rustay 2021). The best available science shows Grace's Warbler populations decline after heavy overstory thinning (Franzreb and Ohmart 1978, Szaro and Balda 1979, Villasenor et al. 2005, Kalies et al. 2010, Battin and Sisk 2011). Because of this, the NM Avian Conservation Partners recommends retaining overstory canopy cover at 50%, which is the high end of the historical range for ponderosa pine and dry mixed-conifer forests (Darr and Rustay 2021). The Project EA lists closed canopy as being greater than, or equal to, 30% canopy cover, yet this is at the center of the historical range for canopy cover. Given the historical canopy cover range of approximately 10-50%, closed canopy should be 50%, and mid-canopy closure should be 30%. Continuing to consider closed canopy as 30% cover, or greater, will negatively affect Grace's Warbler populations on the Santa Fe National Forest.
  - The project EA states that Grace's Warbler populations will be unaffected because large trees will be protected. Large ponderosa pine trees are, indeed, an important habitat component for Grace's Warbler, however, the science strongly shows that large trees alone, without adequate canopy cover, will not sustain Grace's Warbler populations (Darr and Rustay 2021).
  - The project EA assumes that remaining ponderosa pine trees will rapidly grow larger after heavy thinning, however, there is no science provided to back up this assumption, and with increasing negative climate change effects, the chances of this assumption being proven false are high. If trees fail to rapidly grow larger due to climate change effects, Grace's Warbler habitat will never recover (not to mention that the project's carbon sequestration assumptions will become inaccurate, and the project will likely emit far more carbon than it sequesters).
  - Science shows that Grace's Warbler populations benefit from the presence of abundant Gambel oak (Darr and Rustay 2021). Prescribed fire frequency plans in the Project EA, however, likely will not allow oak to adequately recover after burning, resulting in negative

consequences for Grace's Warbler populations, as well as negative consequences for many other wildlife species.

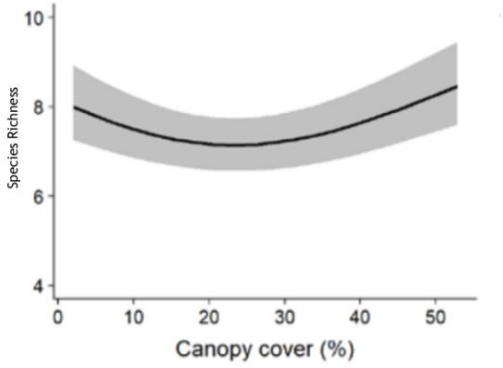
- The Project EA also fails to account for the cumulative negative effects of Gambel oak harvest for fuelwood, reduction of Gambel oak recruitment due to livestock grazing, and the loss of oak from the Project's too-frequent controlled burning.
- In addition to currently supporting a significant Grace's Warbler population (Envirological Services, Inc. 2018), the Santa Fe National Forest, including the portions of the forest covered by this Project, constitute some of the northernmost Grace's Warbler habitat, and thus will likely serve as future Grace's Warbler climate change refugia. Therefore, heavily thinning ponderosa pine and mixed-conifer forests will threaten current critical Grace's Warbler populations, and likely threaten future climate change refugia for Grace's Warbler.

- **Virginia's Warbler**
  - Science shows that Virginia's Warbler populations are dependent upon the presence of abundant shrubby and pole-sized Gambel oak (Rosenstock 1998, Lesh 1999, Jentsch 2008). Prescribed fire frequency plans in the Project EA, however, likely will not allow oak to adequately recover after burning, resulting in negative consequences for Virginia's Warbler populations, as well as negative consequences for many other wildlife species.
  - Virginia's Warblers nest on the ground, making them extremely vulnerable to controlled burning. The project EA does not guarantee that prescribed burning will be conducted outside of the Virginia's Warbler breeding season. Given that even a low-intensity prescribed surface fire could wipe out all Virginia's Warbler nests in the area, burning during the breeding season is a significant threat, and should be avoided. Additionally, given that the Virginia's Warbler breeding season is during the spring and early summer, when there are high winds and no monsoon moisture, as a rule, prescribed fire should be avoided to prevent escaped prescribed burns such as last year's Hermit's Peak/Calf Canyon wildfire.
  - The Project EA also fails to account for the cumulative negative effects of Gambel oak harvest for fuelwood, reduction of Gambel oak recruitment due to livestock grazing, and the loss of oak from the Project's too-frequent controlled burning.

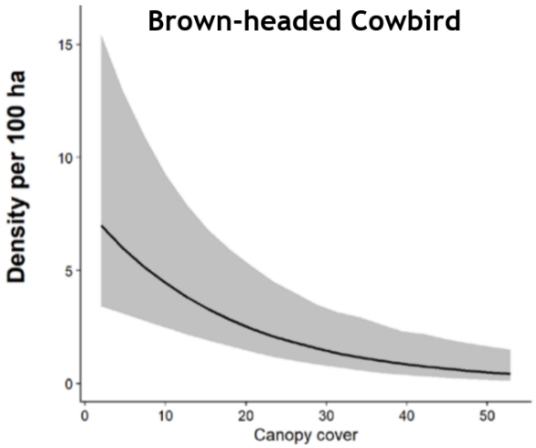
- **Other Forest Bird Species, Including Migratory Birds**
  - The best available science shows that forest birds are negatively impacted by heavy ponderosa pine forest thinning that significantly reduces overstory canopy cover. Numerous scientific papers show that the only bird species positively impacted by heavy forest thinning are open-country birds (see below figure from Kalies et al. 2010, a meta-analysis paper). While having some of these open-country species is important for species richness, forests should primarily be managed for forest birds.



- Forest bird species richness is highest at the high end of the historical canopy cover range, which is 50%. The high species richness shown in the figure below (from Latif and Pavlacky 2020) at the low end of the historical canopy cover range represents open country birds. As mentioned previously, forests should be managed primarily for forest birds. The Project EA does not adequately retain enough forest with canopy cover levels at 50% to sustain high forest bird species richness.



- The Brown-headed Cowbird, which is a bird that parasitizes other bird species' nests, causing lower reproductive output, increases in density as overstory canopy cover is reduced (see the figure below from Latif and Pavlacky 2020). Increasing numbers of Brown-headed Cowbirds will result in lower reproductive success of forest bird species, including the imperiled bird species discussed previously.



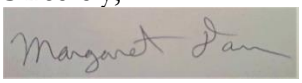
IV. Conclusion

In conclusion, Defenders objects to the final EA, as well as the Decision Notice and Finding of no Significant Impact because the Forest Service should have prepared a full EIS. Furthermore, Defenders objects to the final EA, as well as the Decision Notice and Finding of no Significant Impact because the condition-based management approach does not provide sufficient site specificity to allow the Forest Service and the public to adequately analyze the Project's effects, in violation of NEPA. Finally, Defenders objects to the final EA, as well as the Decision Notice and Finding of no Significant Impact because the Project, as proposed, lacks species-specific design features and mitigation measures for sensitive forest and woodland bird species, and as proposed, based on the best available science, would have significant negative impacts on sensitive forest and woodlands bird species. Therefore, Defenders makes the following suggested remedies that would resolve the objection:

1. The Forest Service must prepare an EIS; and
2. The final analysis must include site-specific prescriptions and analysis of effects; and
3. The final analysis must better incorporate habitat needs for all forest birds; and
4. The final analysis must include species-specific design features and mitigation that protect habitats for the imperiled Pinyon Jay, Grace's Warbler, and Virginia's Warbler.

Thank you for considering our objection to the Santa Fe Mountains Landscape Resiliency Project.

Sincerely,



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Literature Cited

Please note: we will send a USB with a copy of these comments, as well as copies of all the cited literature, to the Forest Supervisor's office.

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