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Comments: See attached letter.

The U.S. Environmental Protection Agency has reviewed the above-referenced document pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

To respond to conditions created by the Creek Fire of 2020, the U.S. Forest Service proposes large scale restoration across approximately 230,000 acres in the Sierra National Forest in Fresno and Madera Counties, California. The Draft EA analyzes the potential environmental impacts that would result from implementing 19 types of activities over 10 to 15 years, including reforestation, prescribed fire, and road repair and maintenance. The Draft EA evaluates a no action and an action alternative.

We appreciate the opportunity to review the Draft EA and have identified areas for additional analysis and disclosure as the Forest Service is preparing the Final EA and considering preparation of a Finding of No Significant Impact.

Prescribed Burn Public Notification

Effective notification is important to ensure that sensitive individuals with compromised respiratory or pulmonary systems can avoid exposure to smoke from prescribed burns; however, it is unclear if and how the Forest Service would notify the public of prescribed burns under this project. In the Final EA, the EPA recommends clearly discussing public notification procedures for planned burns and ensuring that each planned burned notifies and reaches remote areas that may not have access to newspapers or the internet. Disadvantaged communities can lack computer and internet resources and can be difficult to notify. If there are residents or communities with environmental justice concerns who could be impacted by smoke during burn actions, we recommend providing in-person, door-to-door notification. It may be necessary to include written notice in other languages where applicable.

Pile Burning

Although pile burning is included in the proposed action to treat activity-generated fuels (p. 30), short-term air quality impacts associated with this treatment type are not described in enough detail to understand the severity of the impacts. In the Final EA, we recommend including a quantitative estimate of PM_{2.5} (i.e., particles less than 2.5 micrometers in diameter) emissions associated with pile burns and suggest referring to the Kootenai National Forest Starry Goat Project Draft EIS1 analysis as an example (see the Air Quality section, p. 113). We also recommend that the Final EA include a discussion of the burn plan process, as well as: (1) whether the Forest Service develops such plans for pile burns, and (2) if pile burns would be subject to the same process that is utilized for prescribed fire treatments as described in the National Wildfire Coordinating Group's Standards for Prescribed Fire Planning and Implementation.²

In some circumstances it may be appropriate to utilize equipment such as air curtain incinerators to reduce smoke generation and promote full combustion of slash material. The reduction in emissions achieved from utilizing air curtain incinerators to process residual fuels can be considerable; according to a report prepared by Forest Service scientists with the Rocky Mountain Field Station, Fire Sciences Laboratory, emissions from prescribed burns averages 36 pounds per ton of PM_{2.5}, emissions from pile burns 25.5 pounds, and the emissions from an air curtain incinerator creates only 1.1 pound per ton.³ As such, we recommend that the Final

EA consider using air curtain incinerators to reduce emissions from pile burning.

Erosion and Sedimentation

The Draft EA notes an erosion analysis was completed and it was determined that 0.01 tons per acre per year of upland erosion or sedimentation would reach stream channels (Hydrology Report p. 4). The EPA was unable to fully evaluate this conclusion because the erosion analysis was not included and model inputs were not specified (e.g., was increased road usage factored in with project impacts). It is also not clear that the analysis accounts for the more frequent and intense precipitation events that are occurring with climate change. Intense precipitation events can move sediment and material over larger distances. As such, we recommend that the Final EA append the erosion analysis and clearly discuss if climate change modeling inputs were included.

Wetlands

The Draft EA states the proposed project is consistent with Executive Order (E.O.) 11990 for Protection of Wetlands (p. 62) and notes that "[d]esign features and implementation of the Sierra Nevada Framework Aquatic Conservation Strategy buffer guidelines will minimize potential impacts to wetlands" (Hydrology Report p. 3). There is no further information regarding potential impacts or how the project would ensure wetlands in the analysis area are not impacted. We recommend that the Final EA include a description of the potential impacts that may result from project activities to wetlands, including, but not limited to, functional conversion of wetlands (e.g., forested to shrub-scrub); changes to supporting wetland hydrology (e.g., snow melt patterns, sheet flow, and groundwater hydrology); and wetland disturbance. If impacts are anticipated, we also recommend that the Final EA describe how the Forest Service intends "to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands" as described in E.O. 11990 and in addition to commitments addressed above. Specifically disclose how wetlands would be identified and avoided and how unavoidable impacts would be minimized and mitigated.

Discharge of dredged or fill material into waters of the United States, including wetlands, is regulated under the Clean Water Act Section 404. This permit program is administered jointly by the U.S. Army Corps of Engineers and the EPA. We recommend that the Forest Service consult with the Corps to determine the applicability of CWA Section 404 permit requirements to wetlands that would be impacted by the project activities and to ensure appropriate minimization measures are applied to avoid adverse impacts to wetlands.

We also recommend avoiding impacts to aquatic resources that are considered "difficult to replace" under the EPA's and the Corps' Final Rule for Mitigation for Losses of Aquatic Resources [33 CFR Parts 325 and 332; 40 CFR Part 230 (73 FR 19594, April 10, 2008)]. The rule emphasizes the need to avoid and minimize impacts to these "difficult-to-replace" resources and requires that any compensation be provided by in-kind preservation, rehabilitation, or enhancement to the extent practicable. We recommend restoration plans require that soil profiles and hydrology are re-established as much as possible to the original state. In addition, the EPA recommends the Forest consider the mitigation rule to protect aquatic resources even when a CWA Section 404 permit is not required.

Implementation Plan

The Draft EA indicates that the Implementation Plan would inform the public of specific near-term actions that are anticipated (p. 12); however, it is unclear how often the Implementation Plan would be updated to include activities beyond the near future (i.e., one to three years) or how public would be notified. We recommend updating the Final EA to include information about the anticipated updates to the Implementation Plan over the course of the project's 10 to 15 years and provide information about how the Forest Service would notify the public of these updates to allow for public input on proposed upcoming activities.

Monitoring Program

A monitoring plan was not included with the Draft EA and there were few details about monitoring in the document. Because this project is based on design criteria and best management practices, it will be important to include a monitoring program to ensure the Forest Service achieves desired environmental outcomes while also protecting other resources. The EPA recommends the Final EA describe the features of an effective monitoring program for project activities. In addition to targets that specify a desired future condition, include environmental thresholds with protocols to assess whether specific thresholds are being met for each impacted resource. We also recommend describing how and with what resources the Forest Service would conduct the monitoring necessary to ensure the project is meeting objectives and avoiding impacts as predicted.

Monitoring results may reflect a need to modify management actions. For example, it may be reasonable to consider provisions for reducing treatment acreage or omitting specific locations if unanticipated resource impacts occur or monitoring does not indicate progress toward desired conditions. We recommend the Final EA discuss the process that would be applied if monitoring budgets fall short of the need for this project.

The EPA appreciates the opportunity to review this Draft EA. When the Final EA and FONSI are available, please email the documents to

FOOTNOTES:

1 See <https://cdxapps.epa.gov/cdx-enepa-ll/public/action/eis/details?eisId=236490>.

2 National Wildfire Coordinating Group. May 2022. Standards for Prescribed Fire Planning and Implementation. Available at <https://www.nwccg.gov/sites/default/files/publications/pms484.pdf>.

3 U.S. Forest Service. November 2005. The Use of Air Curtain Destructors for Fuel Reduction and Disposal. Available at <https://www.fs.usda.gov/t-d/pubs/html/05511303/05511303.html>.