



REGION 9

SAN FRANCISCO, CA 94105

April 1, 2024

Jason Kuiken
Forest Supervisor
Stanislaus National Forest
Attn: SERAL 2.0
19777 Greenley Road
Sonora, California 95370

Subject: EPA Comments on the Social and Ecological Resilience Across the Landscape 2.0 Project,
Tuolumne County, California (EIS No. 20240028)

Dear Jason Kuiken:

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. The CAA Section 309 role is unique to EPA. It requires EPA to review and comment on the environmental impact on any proposed federal action subject to NEPA's environmental impact statement requirements and to make its comments public. The EPA also provided scoping comments on December 13, 2023.

The Forest Service proposes multiple treatments to increase landscape resilience to natural disturbances, reduce the spread of invasive non-native weeds, and provide social and economic opportunities to local communities across approximately 162,000 acres in Tuolumne County, California, including 118,282-acres of the Stanislaus National Forest. The proposed action includes ten treatments, including, but not limited to, forest thinning, prescribed burning, hazard tree management, non-native invasive weed control and eradication, temporary road construction, and reconstruction and maintenance of roads and trails. The project also proposes project-specific forest plan amendments regarding management of habitat for the California spotted owl. In accordance with the Western Firesheds Emergency Action Determination (EAD) under Section 40807 of the 2022 Bipartisan Infrastructure Law, the Draft EIS identifies an action and no action alternatives.

We understand that SERAL 2.0 is the second phase to treat the remainder of the Stanislaus Landscape, a *Wildfire Crisis Strategy Priority Landscape* identified in 2022. In total, the original SERAL project and SERAL 2.0 would treat approximately 280,000 acres. We also understand that all project actions would fall under the EAD, except the proposed use of herbicides for fuelbreak maintenance and the salvage of

insect-, disease-, drought-, and fire-killed trees. As such, more than one decision would be made based on this EIS, resulting in the first SERAL 2.0 Record of Decision to be prepared in accordance with EAD authority and “a more deliberative process” for the proposed use of herbicides and salvaged trees.

Review Summary

The EPA identified public health, welfare, and environmental quality concerns in the analysis that EPA recommends be addressed in the Final EIS. The attached detailed comments include recommendations for protecting air quality and communities with environmental justice concerns and additional analysis to strengthen the assessment of impacts, including comprehensive cumulative impact analysis. In addition, our review of the Draft EIS identified an overarching concern that the Forest Service plans to authorize all future projects under a single NEPA decision without disclosing and evaluating site-specific impacts and providing public engagement. We recommend that the Forest Service utilize a programmatic EIS or staged decision-making process similar to the North Yuba Landscape Resilience EIS to allow for disclosure of site-specific analyses and public participation.

We appreciate the opportunity to review this Draft EIS. When the Final EIS is released for public review, please send an email with a link to the document to samples.sarah@epa.gov. If you have any questions, please contact me at (415) 947-4167, or Sarah Samples, the lead reviewer for this project, at (415) 972-3961.

Sincerely,

Jean Prijatel
Manager
Policy and Operations Branch

ENCLOSURE

1. EPA’s Detailed Comments
2. EJSscreen Community Report for Block Group 061090031032

cc: Rick Kuyper
Supervisor - Sierra/Cascades Division, U.S. Fish and Wildlife Service

Laura Hierholzer
Regional Environmental Coordinator, U.S. Forest Service

Programmatic NEPA and Site-Specific Impacts

The Draft EIS discloses general potential impacts related to the proposed treatments along with management requirements and best management practices, and no site-specific impacts are disclosed. The EPA supports efforts to streamline within the regulatory context and agrees that the proposed condition-based management approach could shorten the time between planning and implementation and provide flexibility for changing conditions over time; however, we are concerned that the proposed single NEPA decision does not account for the evaluation and disclosure of site-specific impacts or corresponding public participation.

While a broad EIS could be a valuable tool for providing a preliminary survey of potential effects that could result from project activities, the breadth and scale of the proposed treatment area and treatment activities suggest the need for regular and long-term evaluation of the impacts associated with project activities. The EPA believes that project site-specific NEPA analyses would be the most appropriate place for this evaluation.

The Council on Environmental Quality NEPA implementing regulations anticipate the need for a flexible approach to an ever-changing landscape. The regulations allow for a programmatic NEPA analysis to define the overall landscape-scale strategy and sideboards of the program, and for quicker and more efficient site-specific project analyses tiered to it. Tiered site-specific NEPA analyses would speed the consideration and implementation of individual treatments while providing the “hard look” and opportunity for public review and input required under NEPA.

Although the current EIS is not described as a programmatic, it evaluates high level impacts and does not address site-specific impacts. We note that several national forests utilize an implementation plan to identify and disclose site-specific impacts outside the NEPA process. The Tahoe National Forest in the North Yuba Resilience Landscape (NYRL) EIS also analyzes site specific impacts and allows for public participation within the NEPA process even though it is not formally considered a programmatic EIS under 40 CFR 1501.11.

Recommendations for the Final EIS:

- To address the disclosure of site-specific impacts, we suggest the Forest Service commit to utilizing the current EIS once finalized as a programmatic NEPA document and to conducting subsequent tiered site-specific NEPA analyses prior to the implementation of future projects. This process would ensure that site-specific impacts are evaluated, disclosed, and informed by formal public engagement.
- If the Forest Service chooses not to implement a programmatic approach, consider adopting the NYLR EIS's staged decision-making approach (see the NYLR Final EIS p. 1-9) to address site specific impacts and allow for public participation.

Air Quality

Prescribed fire is a valuable tool that can have ecological benefits over other treatment techniques, yet it has the potential to cause periodic degradation of air quality and visibility and may present a human health risk. Potential air emissions associated with the proposed project activities also include air

pollutants from gasoline and diesel equipment and vehicles traveling on paved and unpaved roads, including re-entrained dust. In addition to the health-based National Ambient Air Quality Standards that protect ambient air quality, the Clean Air Act provides Class I Areas special protection for air quality and air quality related values, including visibility. We note that Yosemite National Park and Emigrant, Mokelumne, and Hoover Wildernesses occur near the project area.¹ Additionally, there are nearby towns and Class II areas with sensitive resources.

We appreciate that the Draft EIS refers to quantitative estimates of emissions from the Sequoia and Sierra National Forest Land Management Plan Final EIS; however, this EIS presents results for multiple alternatives, and it is unclear what alternative (i.e., restoration percent) would best represent SERAL 2.0. In addition, when incorporating by reference, agencies are required to briefly describe its content (40 CFR 1501.12) and it is ideal to include a link to the document along with page numbers to assist the reader in retrieving the analyses. For example, the Draft EIS also refers to the “bioregional science synthesis (i.e., PSW-GTR-247)”;¹ however, the EPA was unable to locate this document through a standard internet search. Without a summary and distinct identification of which alternative impacts would best represent potential impacts for this project, the project’s air quality impacts are unclear.

While we agree that the SERAL 2.0 project has the potential to avoid prolonged significant air quality impacts via reduced catastrophic wildfire risk, air quality information is an important component to analyze given the proposed action is located near Class I Areas, is near or in towns, and is in nonattainment for 8-hour ozone. This is especially important given that the prescribed burns may occur on up to 120,961 acres for SERAL 2.0 (p. 31) and cumulatively up to 172,572 acres, including the first SERAL project and projects identified in Appendix C.

Recommendation for the Final EIS:

- Summarize the affected environment and environmental consequences information that is applicable from the Sequoia and Sierra National Forest Land Management Plan Final EIS. Ensure that the following information is included:
 - Each criteria pollutant and their appropriate NAAQS, (i.e., ozone, particulate matter, carbon monoxide, nitrogen oxides, sulfur dioxide and lead). Disclose that the project area is in non-attainment for 8-hour ozone.
 - Prevention of Significant Deterioration increment at potentially impacted Class I and Sensitive Class II Areas. Sensitive receptors in the vicinity (such as population centers, nonattainment areas, and Class II areas with sensitive resources). Airshed classifications and monitored baseline conditions (design values) for each criteria pollutant.
 - Any regional concerns in the area (e.g., ozone, PM2.5, seasonal wildfire smoke).
- Include a link to the Sequoia and Sierra National Forest Land Management Plan Final EIS as well as specific document and page numbers to assist the reader in retrieving the analyses.

Prescribed Fire

Emissions from prescribed fire and pile burning to burn vegetation can cause locally elevated particulate matter concentrations and potential exceedances of air quality standards, primarily for

¹ U.S. Environmental Protection Agency. (2023, July). California Federal Class 1 Areas. https://www3.epa.gov/region9/air/maps/ca_cls1.html

PM_{2.5}. The Draft EIS does not provide an estimate of emissions of all the pollutants associated with prescribed burning, including ozone. To the extent possible, we recommend including as much treatment-specific project information in the NEPA documentation as is known at the time of the Final EIS. In this analysis, we also recommend addressing the cumulative impact acreage of up to 172,572 acres, as described above.

Recommendations for the Final EIS:

- Estimate the annual acreage anticipated for prescribed fire management, as well as an estimate of predicted emissions that may result (or, at minimum, a qualitative discussion of the types of pollutants expected to be generated).
- Describe potential short-term air quality impacts associated with burning.
- Consider describing other design features to address CAA requirements, including measures which may already be a part of Smoke Management Plans that would continue under SERAL 2.0.
- Provide an overview of the smoke management program that would be followed to avoid public health impacts and potential ambient air quality exceedances, both within the project area and off-site.

Environmental Justice

The Draft EIS states that minority and low-income populations were analyzed by using counties and then compared to the state of California. As we noted in our scoping comments, using counties as the smallest geographical units dilutes the results and often misses the presence of these populations. Instead, the EPA recommends using block groups, which is the smallest geographical unit in the U.S. Census Bureau published data. Using EJScreen, the EPA identified that block group 061090031032 within the project area is 38 percent minority population and 54 percent low-income. In addition, 17 percent the block group is linguistically isolated. Please see the EPA's additional enclosure for the EJScreen Community Report for Block Group 061090031032, which summarizes this information.

Due to the presence of these populations, the EPA recommends adding an environmental justice section as a "supporting document" to adequately describe the affected environment and environmental impacts of the alternatives and clearly identify the presence of both minority and low-income populations in block group 061090031032. In this new section, we also recommend addressing E.O. 14096, *Revitalizing Our Nation's Commitment to Environmental Justice for All*, that was issued on April 21, 2023. E.O. 14096 includes specific measures for federal agencies to address in NEPA environmental reviews, including addressing any disparate health effects (including risks) ((C)(ix)(B)) and providing opportunities for early and meaningful involvement in the environmental review process by communities with environmental justice concerns potentially affected by a proposed action ((C)(ix)(C)).²

² The White House. (2023, April 21). *Executive Order on Revitalizing Our Nation's Commitment to Environmental Justice for All*. <https://www.whitehouse.gov/briefing-room/presidential-actions/2023/04/21/executive-order-on-revitalizing-our-nations-commitment-to-environmental-justice-for-all/>

Recommendations for the Final EIS:

- Include an environmental justice section that addresses the presence of minority and low-income populations within the project area using block groups and discloses potential impacts to these populations.
- Ensure the new section addresses E.O. 14096 and disclose any opportunities the Forest Service provided for early and meaningful involvement.

Health Risk and Outreach

The Council on Environmental Quality has advised that, in determining whether there is a disproportionately high and adverse human health effect, an impact assessment must consider whether minority and low-income populations are or would be affected by cumulative or multiple adverse exposures.³ In addition, E.O. 14096 states that government agencies must “identify, analyze, and address disproportionate and adverse human health and environmental effects and risks) and hazards of Federal activities, including those related to climate change and cumulative impacts of environmental and other burdens on communities with environmental justice concerns.” The Draft EIS does not address these factors for potential impacts from prescribed burning.

People of low socio-economic status may be at greater risk of experiencing a health effect due to wildfire smoke, including prescribed burns, and may experience more severe effects.⁴ Socio-economic status uses indicators such as educational attainment, median household income, percentage of the population in poverty, race/ethnicity, and location of residence. Epidemiologic studies of fine particle pollution using indicators of socio-economic status provide initial evidence that populations of low socio-economic status may have an increased risk of mortality due to short-term exposures. In addition, socio-economic status may contribute to differential exposures to wildfire smoke across communities. For example, access to air conditioning reduces infiltration of particle pollution indoors. Less access to air conditioning may lead to greater exposure to wildfire smoke, increased sensitivity to extreme heat and, as a result, health disparities across communities. People of color and impoverished children and adults bear a disproportionate burden of asthma and other respiratory diseases and therefore they may be at increased risk of health effects from wildfire smoke exposure.

It is in this context that health and environmental justice impacts need to be evaluated in the Final EIS. Consider co-risk factors that are present, such as access to health care, education, multiple exposures, and stress factors that can make minority and low-income populations more vulnerable to pollution impacts than other populations. Vulnerability assessments recognize that disadvantaged, underserved, and overburdened communities are likely to have pre-existing deficits of both a physical and social nature that cause the effects of environmental pollution to be greater and, in some cases, unacceptably burdensome. Statements that the types of impacts on minority and low-income communities would be the same as those described for the general population overlook this essential principle of an environmental justice analysis.

³ Council on Environmental Quality. (1997, December) *Environmental Justice: Guidance Under the National Environmental Policy Act*. https://www.epa.gov/sites/default/files/2015-02/documents/ej_guidance_nepa_ceq1297.pdf

⁴ U.S. Environmental Protection Agency. (2024, February 8). *Which Populations Experience Greater Risks of Adverse Health Effects Resulting from Wildfire Smoke Exposure?* <https://www.epa.gov/wildfire-smoke-course/which-populations-experience-greater-risks-adverse-health-effects-resulting>

Recommendations for the Final EIS:

- Address disproportionate health risks in the new environmental justice section.
- Discuss how the project could affect cumulative health impacts, including disproportionate impacts to minority and low-income populations.
- Consider adopting the following protective measures (included above for a public communication plan) in the Final EIS and Record of Decision to address and mitigate for disproportionate impacts to minority and low-income populations due to wildfire smoke exposure:
 - Provide N95 masks to all community members in need.
 - Distribute educational fliers demonstrating how smoke can affect health and how to practice preventive care.
 - Provide a representative to address public citizen questions and concerns.

Public Notification

Effective notification is important to ensure that sensitive individuals with compromised respiratory or pulmonary systems are informed and understand how to reduce exposure to and protect themselves from wildfire smoke due to prescribed burning. While design criteria AQ-2 states that the Forest Service would “provide early notification to the public about potential smoke from fire activities to promote awareness and protect human health and safety” (Appendix B p. B-1), the Draft EIS does not discuss how the Forest Service would provide this early notification. We also note that Block Groups 061090031032 falls within the 95-100th percentile for limited English speaking, indicating a need to translate public notifications.

Recommendations for the Final EIS:

- Clearly describe the public notification procedures for prescribed burns and pile burning. Include a public communication plan and develop protective measures to mitigate smoke impacts (e.g., providing N95 masks; distributing educational fliers; burn notifications and translated material). If applicable, provide a representative and contact information to address public citizen questions and concerns.
- Add burn notifications to the Stanislaus National Forest’s website and Facebook page.
- Translate notifications to Spanish and Korean and other languages as necessary to successfully notify linguistically isolated populations. We encourage engaging with the community to better understand what language translations are needed.⁵

Valley Fever

The Centers for Disease Control and Prevention indicates that the project area falls within the zone that is endemic for *Coccidioides immitis*, a fungus causing Valley fever (*Coccidioidomycosis*) in humans.⁶ According to the CDC, rising temperatures have allowed the fungus to spread to new areas that previously were too cold and wet for it to survive, including the entire project area. As a result, prescribed fire smoke and fugitive dust could disperse *Coccidioides* spores, if present, to wildland

⁵ The EJSscreen report also noted “Russian, Polish, or Other Slavic” (five percent) and “Other Asian and Pacific Island” (one percent).

⁶ Centers for Disease Control and Prevention. (2023, July). *Valley Fever (Coccidioidomycosis) Awareness*. <https://www.cdc.gov/fungal/features/valley-fever.html>

firefighters as well as nearby communities. To reduce the human health risk of contracting Valley fever, it will be important to identify how the Forest Service would educate wildland firefighters and nearby communities about the risks of contracting Valley fever and its symptoms.

Recommendations for the Final EIS:

- Include a description of Valley fever, its potential presence within the project area, and risks to wildland firefighters and nearby communities.
- Identify measures to prevent or reduce the risk of exposure to smoke from prescribed burns and fugitive dust, including training for workers and supervisors on the potential presence of Valley fever spores, methods to minimize exposure, and how to recognize symptoms.
 - For wildland firefighters, mitigation measures could include limiting workers' exposure to disease-endemic areas by directing wildlife firefighters to remove dusty clothing after fieldwork and store in closed plastic bags until washed. When exposure to dust is unavoidable, provide approved respiratory protection to filter particles.
 - For the community, mitigation measures could include ensuring air-conditioned buildings are available for community members without air-conditioning if prescribed burns would take place in warm ambient temperatures.

Cumulative Impacts

Cumulative impacts "result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency undertakes such other actions" (40 CFR 1508.1 (g)(3)). Although the Draft EIS includes a list of reasonably foreseeable projects in Appendix F (p. 202), information about the locations of these projects in relation to SERAL 2.0 and a comprehensive resource analysis of cumulative impacts is not provided, including air quality and environmental justice. In addition, other relevant projects are not included in Appendix F, including the first SERAL project totaling approximately 119,000 acres and the newly posted Forest Projects Plan Phase 2 EIS on the Forest Service's Schedule of Proposed Action for the Stanislaus National Forest. As such, additional cumulative impact analysis is needed in the Final EIS, including a description of the affected environment, environmental consequences, and the methods, techniques, and tools used for analyzing cumulative impacts. We encourage the Forest Service to use the Council on Environmental Quality's *Considering Cumulative Effects Under the National Environmental Policy Act*, which was created to assist Federal agencies with analyzing cumulative effects during the NEPA process.

Recommendations for the Final EIS:

- Evaluate cumulative air quality and environmental justice impacts over the entire area of impact and the impacts when added to other past, present, and reasonably foreseeable future projects in the analysis area, including the first SERAL project and the Forest Projects Plan Phase 2.
- Include a map illustrating projects listed in Appendix F as well as the first SERAL project and the Forest Projects Plan Phase 2.

Biological Resources

The Forest Service's *Response to Scoping Comments* document states that the U.S. Fish and Wildlife Service's biological opinion (BO) will not be available before the Final EIS is distributed due to scheduling and timelines (Scoping Document p. 22). The NEPA regulations require agencies, to the fullest extent possible, to "prepare draft environmental impact statements concurrent and integrated

with environmental impact analyses and related surveys and studies required by all other Federal environmental review laws” (40 CFR 1502.24). While it appears that the BO would be finalized before the Record of Decision but after publication of the Final EIS, we encourage the Stanislaus National Forest to work with the U.S. Fish and Wildlife Service to conclude a Biological Opinion prior to publishing future Draft EISs, including the upcoming Forest Projects Plan Phase 2 EIS.

Recommendation: In accordance with 40 CFR 1502.24, work with the U.S. Fish and Wildlife Service in advance to complete the BO prior to publishing future Draft EISs, including the Forest Projects Plan Phase 2 EIS.

California Spotted Owl

Since 2020, wildfire has affected approximately two million acres of forested habitat within the California spotted owl’s range, including the Caldor (2021), Creek (2020), Dixie (2021), and North Complex (2020) fires.⁷ To improve wildfire resiliency of the 61,288 acres of California spotted owl within the project area (p. 54), the Forest Service is proposing treatments that align with the *California Spotted Owl Conservation Strategy* (2019). We appreciate this dynamic management strategy to maintain owl persistence by protecting the highest quality habitat and to develop resilient owl habitat by treating and managing the fire-prone and lower quality habitat.

The Draft EIS describes coordination with the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service regarding the California Spotted Owl. Given the proposed listing of the California spotted owl under the Endangered Species Act, we recommend that the Final EIS include information about California spotted owl monitoring and adaptive management to ensure that the project achieves desired forest resiliency outcomes while also successfully protecting California spotted owl habitat and minimizing impacts. We note that the Draft EIS does not describe whether the Stanislaus National Forest has any established partnerships that could support California spotted owl monitoring and adaptive management efforts.

Recommendations for the Final EIS:

- Include information about California spotted owl monitoring and adaptive management.
- Discuss any established partnerships that could support California spotted owl monitoring and adaptive management efforts.
- Include all applicable measures from the conservation strategy in Management Requirements and address any ongoing coordination with the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service.

⁷ California Department of Forestry and Fire Protection. (2022, October). *Top 20 Largest California Wildfires*. https://34c031f8-c9fd-4018-8c5a-4159cdff6b0d-cdn-endpoint.azureedge.net/-/media/calfire-website/our-impact/fire-statistics/featured-items/top20_acres.pdf