Submitted electronically to PEPC Portal and directly to Elly_Boerke@nps.gov

August 5, 2023

Clayton Jordon – Superintendent
Elizabeth Boerke – Environmental Planning and Compliance
Sequoia and Kings Canyon National Parks

cc: George Nickas
Kevin Proescholdt
Dana Johnson, Andrew Hursh
Ara Marderosian, Carla Cloer
Steven Montgomery, Richard Kangas, Dr. Chad Hanson

Re: Comments re SEKI Wilderness Planting EA for WW, SFK, SC, STF, and TRC
(EA at https://parkplanning.nps.gov/documentsList.cfm?projectID=107200)

Mr. Jordon and Ms. Boerke,

On behalf of Wilderness Watch (WW), Sequoia ForestKeeper (SFK), the Kern-Kaweah Chapter of the Sierra Club (SC), the Sequoia Taskforce of the Sierra Club (STF), and the Tule River Conservancy (TRC), I am submitting the following comments regarding ecological interventions in the John Krebs and Sequoia and Kings Canyon Wildernesses. In addition to planting seedlings, the proposal allows chainsaw felling of trees for helicopter access, the use of helicopters in Wilderness, the transport of tens of thousands of giant sequoia and other seedlings, and other actions that despoil Wilderness character in violation of the Wilderness Act.

Our groups have previously submitted extensive comments detailing our concerns when the proposed actions were limited to just the Board Camp Grove in the John Krebs Wilderness. That proposal alone should have triggered a full Environmental Impact Statement (EIS) because the actions are highly controversial, precedential, their outcome is uncertain, they will affect ecologically-critical areas, and will cause significant lasting effects to Wilderness character. Moreover, the proposal fails to analyze reasonable alternatives that can meet the purpose and need without mechanized equipment, as suggested in our previous comments. Issuing a Finding of No Significant Impact (FONSI) would be arbitrary and capricious and in violation of NEPA. Therefore, the proposal violates NEPA and the Wilderness Act and should be withdrawn.

In these EA comments, we try not to restate previous comments, but we incorporate them by reference.

1. **The Potential for Significant Effects Requires an EIS**

We raised this issue in our scoping comments. *See WW comments, p. 4.* According to the Park Service NEPA handbook, the agency must prepare an EIS if the proposed actions are either beneficial or adverse, affect the unique characteristics of the area, are highly controversial, the potential outcome is highly uncertain, they would set a precedent that could influence future
actions, or their effects are cumulative. Moreover, NEPA requires the agency to take a “hard look” at the potential environmental effects of the proposed action and alternatives. A proposal that would essentially create plantations of sequoias and other trees in the SEKI, the John Krebs, and proposed Wilderness most certainly triggers these factors and requires preparation of an EIS.

The NPS NEPA Handbook describes the intensity factors for consideration of whether the action would have significant impacts, which trigger the requirement for an EIS. See Sec. 1.6, p. 19 (“If an action has the potential to result in significant adverse impacts and applying mitigation measures cannot ensure that significant adverse impacts will be avoided, an EIS must be prepared.”). The handbook lays out the intensity factors that must be considered as applied to this project (see Sec. 1.6, pp. 20-22):

- Impacts that may be both beneficial and adverse. A significant impact may exist even if the federal agency believes that on balance the effect will be beneficial.

Here, planting trees in the context of Wilderness is both adverse and beneficial. While the actions proposed would adversely affect Wilderness characteristics of untrammeled, natural, undeveloped, and solitude (by cutting trees for helicopter activities, use of helicopters and chainsaws, and trammelining from multi-year planting), the Park Service’s EA effuses the many benefits the proposal would bring in restoring the groves. These potential adverse or beneficial effects, in light of their precedent nature of planting in Wilderness, the highly controversial and uncertain effects from planting, require that the Park Service analyze the project with an EIS.

- 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.

While all actions in National Parks affect unique characteristics, here the actions are being proposed in Wilderness and ecologically-critical areas, including habitat for the Pacific fisher, a species listed under the ESA as endangered. Again, this factor suggests preparation of an EIS.

- The degree to which the effects on the quality of the human environment are likely to be highly controversial.

The Handbook states that a “substantial dispute within the scientific community about the effects of a proposed action would indicate that the effects are likely to be highly controversial and therefore likely significant.” p. 21. Here, there has already been a significant scientific dispute as to whether the actions are necessary and at what level of density of natural sequoia regeneration planting should take place. See EA comments by John Muir Project of Earth Island Institute. Moreover, the term “controversial” also “refers to cases where a substantial dispute exists as to the nature of the environmental consequences of a proposed action.” Id. Because the action is proposed in Wilderness, NEPA requires a more thorough analysis in an EIS because the substantive restrictions in the Wilderness Act that preclude the types of actions proposed here. That is especially so where the proposed action will have a negative impact on the Park’s Wilderness character and involve activities prohibited by the Act, including mechanical transport (helicopters), motorized equipment (helicopters and chainsaws), and ecological manipulation.
• The degree to which the potential impacts are highly uncertain or involve unique or unknown risks.

This factor involves high levels of uncertainty and risks that are unique or unknown, which would make it difficult or impossible to reasonably predict impacts of an action, which require analysis in an EIS. Here, the EA and associated analysis admits the highly uncertain outcome of the planting, in that it may take up to 6 seasons of planting seedling for there to be sufficient numbers of surviving trees, and even then the outcome is highly uncertain. Moreover, the impacts from the planting itself in the form of boots on the ground, the digging holes for each of the tens of thousands of seedlings in an area with highly-disturbed and fragile soils is highly uncertain and involves unique and unknown risks. The risks are unique because this is the first such actions that we know of in NP Wilderness, and there are many unknown risks, such as the long-term adverse effects on soil and vegetation in burned sequoia groves, the long-term genetic makeup of planted groves from sources outside the groves, and the impact to areas outside groves where planting is proposed in endangered Pacific fisher habitat. These effects and the outcome will be uncertain for decades or even longer. Moreover, the continued and highly uncertain effects from climate change also requires a more thorough analysis in and EIS.

• 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.

Not only do the factors above suggest that the proposed action would have significant effects, we know of no previous proposal that would plant trees, essentially creating plantations, in a NP Wilderness. Therefore, the proposed action would establish a precedent for future actions with the associated significant ecological effects (beneficial and adverse); so would the adverse effects from frequent use of helicopters and chainsaws in Wilderness. For those reasons alone, an EIS is necessary, because there the Park Service will likely use this action as a precedent to propose similar post-fire planting in other Wilderness areas affected by climate change.

• Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

In our scoping comments, we specifically included two other actions the Park Service is implementing in the SEKI Wilderness, including its roadside hazard project, which would chainsaw fell large trees within the Wilderness at a certain distance from roads, and the Wilderness chainsaw and tree cutting in Wilderness groves. See WW scoping comments, p. 4 and Exhibits A & B thereto. Ironically, while the cumulative effects analysis in the Wilderness effects section discusses the Fire and Fuels Management Plan, which the Park Service violates in its Emergency Actions in unburned groves (Exhibit B thereto), there is no mention of these projects in the EA, even though the activities are concurrent and would adversely and cumulatively affect Wilderness character.

In light of these intensity factors, a FONSI would be arbitrary and capricious, and NEPA and the NPS NEPA Handbook require the preparation of an EIS.
2. Failure to Consider a Reasonable Range of Alternatives

In our scoping comments we suggested that “Other potential alternatives should include no use of motorized transport or equipment.” WW, et al., Scoping Comments, p. 4 (March 17, 2023). However, among the three alternatives and those that were considered but dismissed, this reasonable alternative, which could meet the purpose and need, was not considered or analyzed. See EA, pp. 17-40. This is a fatal flaw, which makes the EA incomplete and violates NEPA.

Surprisingly, someone in the Park Service must have thought that our suggested alternative was reasonable and feasible to meet the purpose and need because it was discussed in the Minimum Requirements Analysis as: “Alternative D: Only Plant Areas Safely and Feasibly Accessed by Foot, Stock, or Road Support.” EA, Appx. D, p. 18. But such an alternative does not exist in the main body of the EA and its impacts have not been evaluated as required by NEPA. What is even more surprising is that it could have allowed a minimum impact on Wilderness character and still achieve the Park Service’s desired restoration of sequoia groves on 978 acres of Wilderness, just shy of the 1,130 Wilderness acres in Alternatives B & C. Id.

An agency must provide a reasoned discussion of alternatives that may avoid prohibited activity under the Wilderness Act. Alternative D would avoid many of those prohibited activities. Moreover, the Park Service must, at the very least, explain why anything more than Alternative D is necessary, given that it could lessen the adverse effects on Wilderness character better than Alternatives B or C. If Alternative D lessens those adverse effects while leading to similar results (978 acres versus 1,130 acres planted), then the adverse effects from Alternatives B or C are unnecessary.

3. The Proposed Planting and Associated Activities Violate the Wilderness Act

The Park Service has essentially admitted that actions it has already taken and the proposed actions violate the Wilderness Act. In a blatant admission of Wilderness Act violations that have already occurred, the EA states that “the removal of cones from these groves (both those from live remaining trees and those scattered on the ground) between 2021 and 2023 have likewise trammelled several of the project areas and other groves within the seed zone.” EA, p. 57.

Additionally, the trampling of sequoia seedlings in the Redwood Mountain Grove area of the Wilderness during research surveys at field plots are discussed in comments provided by the John Muir Project of Earth Island Institute (Appx. A at end of these comments, excerpting email to Clayton Jordon about trampling in research plots and impact from cows in Redwood Mountain Grove). The research damage and the sequoia cone gathering have also violated NEPA because there is no documented analyses of the impacts from these activities prior to implementation.

The EA asserts the loss of 12,000 acres of critical habitat for the endangered fisher from fire effects. And the planting actions are being justified to restore the desired “natural” quality of Wilderness character in order to restore that habitat. But planting trees will do little to restore fisher habitat in the short-term because Pacific fisher require old-growth forest that will take hundreds of years restore, most of which will occur naturally without ecological intervention. EA, p. 58; see p. 61 (“the seedlings would mature over a period of centuries, such that large
sequoias would be the dominant feature within most, if not the entire, grove footprints. Similarly, over a period of 50-100 years and beyond, stand structure would continue to improve and habitat value would continue to increase across the 485-acre fisher habitat corridor project area …”).

The EA goes on to admit that helicopters used to transport materials for cone collection or mechanized use to maintain administrative backcountry camps, along with the camps themselves (see footnote 10 on EA page 28), also intermittently and temporarily degrade the undeveloped quality characteristic of Wilderness…another Wilderness Act violation. Id. Note that it is unclear why the Park Service would install “600 small plot markers and 60 other installations” (no further description provided) under its “No Action” alternative, which would also violate the Wilderness Act. These installations are actions, and they should not be included under the no action alternative. Regardless of the alternative, these installations violate the Wilderness act.

Finally, the EA also admits that the presence of crews hiking to, camping within, and conducting post-fire monitoring or seed collection in all groves and those within the seed zone of these groves, as well as any potential use of helicopter to transport equipment for these purposes adversely affect opportunities for solitude. EA, p. 58. Further, the use of explosives to clear stumps and snags would affect solitude, not only locally but across wide areas of the SEKI due to the 170-180 dB noise, which is likely to also affect many wildlife species.

More details are provided in the effects analyses of the action alternatives, which demonstrate further Wilderness Act violations. For example, the EA highlights that trammeling will continue to occur during the next 5 or 6 years. EA, p. 60. While the EA suggests that trammeling will end after 6 years, the fact that “non-local genetic material in seedlings grown from non-local seed sources which would result in a different genetic makeup than was present prior to the fire” means that trammeling under Alternative 2 will continue indefinitely. Planting of tree seedlings would result in trammeling actions occurring over an area of roughly 1,130 acres for a period of up to six years. EA, Appx. D, p. 16.

For each action alternative, the Wilderness Act violations are detailed further: “The undeveloped quality would also be negatively affected by up to one to six sling load helicopter landings and roughly two to three hours of chainsaw use (when determined necessary) at each planting location the first year of planting and up to one to two sling-load landings during each subsequent planting (estimated as one to two per planting location over the next five to six years) (see Table 3 on page 32).” EA, p. 62. The effect on the undeveloped character of the Wilderness will last 10-20 years for tree stumps, created for helicopter access, and 30-40 years for the installation of monitoring equipment. EA, Appx.D, pp. 16-17.

Helicopters and chainsaws would negatively affect sights and sounds or opportunities for solitude because up to roughly 37 helicopter flights would travel over wilderness for up to 30 minutes per flight to each location over the course of approximately five to six years. The use of chainsaws running for up to an estimated two to three hours at each location to potentially fell snags within the first year of planting would further negatively affect this quality. The EA even suggests that the use of explosive to clear stump and snags for planting would only be a temporary disturbance, but it nonetheless violates the Wilderness Act, admitting that the impacts to this quality would be more intensive and far reaching, but of shorter duration. EA, p. 62.
The EA suggests that the negative effects to Wilderness character comply with the Wilderness Act because the project is necessary to restore giant sequoia groves, and alternatives that would cause less impact to wilderness character are not feasible. *But see* EA, Appx. D, p. 18 (Alternative D, which would cause much less effect on Wilderness character). But the question is not simply whether the Park Service met certain procedural requirements in analyzing the impacts of the Project under the Wilderness Act; rather, the Wilderness Act imposes substantive limits on wilderness management that require preservation of an area's “wilderness character.” It cannot be reduced to mere “paperwork hurdles.” *See Wilderness Watch v. United States Fish & Wildlife Serv.*, CV 23-77-M-DWM, at *25-26 (D. Mont. Aug. 2, 2023).

In sum, the proposal violates the Wilderness Act: using mechanized equipment, motorized transport, installations, and it would significantly and adversely affect Wilderness character, pitting intense trammeling against the Park Service’s desired “natural” conditions, while adversely impacting undeveloped qualities and opportunities for solitude.

4. The Ecological Intervention Analysis is Highly Misleading

The Wilderness Act, read as an internally consistent document as required by law, does not pit Wilderness characteristics against one another. “A wilderness, in contrast with those areas where man and his own works dominate the landscape,” is statutorily defined as “an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain” and an area “retaining its primeval character and influence, ... which is protected and managed so as to preserve its natural conditions....” 16 U.S.C. § 1131(c). Thus, what is natural for the area necessarily flows from what is untrammeled. Indeed, this is the common meaning of the term “natural.” *See* Black’s Law Dictionary 1026 (6th ed. 1990) (natural means wild, formed by nature, and not artificially made or cultivated); *see also* Webster’s New International Dictionary of the English Language (1960) (defining “natural” as 1) “Of, from, or by, birth; natural-born;” 5) “In accordance with, or determined by, nature;” and 9) “Not artificial”). It is the result of a process, not a static end point. Otherwise, the default position will always be to trammel Wilderness to comport with some land manager’s notion of what is natural, even though various complicated factors—many of which we do not fully understand and cannot control—are always necessarily at play in shifting natural conditions, especially in the context of climate change.

Here, the Park Service is conflating “desired conditions” with “natural conditions” and creating a false conflict to justify trammeling actions in Wilderness. Ultimately, “whatever ‘wilderness character’ means, it cannot be something that depends upon the active manipulations of humans.” Sean Kammer, 43 ENVTL. L. at 86 (2013). Restraint and humility are important values underpinning the Wilderness Act, and “[l]and managers should exercise this same humility in dealing with wilderness areas, lest they lead us down a path to where there are no longer any places that are truly ‘wild,’ no places beyond the control of human institutions and cultural imperatives.” *Id.* The Park Service has utterly failed to restrain themselves and has lost its sense of humility in its belief that its desired conditions trump all other Wilderness values.
The Park Service’s own manual and policies unequivocally disfavor intervention. The ecological intervention analysis provided in an Appendix focuses too much on past fire suppression and fails to adequately factor in the effects of climate change that favor foreclosing ecological intervention. And even climate change—an ongoing, global, outside-the-wilderness force and the wide-ranging ways that natural processes react to it—provides no adequate justification for discrete coercions within Wilderness. The eco-intervention manual makes clear that this is not grounds for doubling down on anthropogenic manipulation. The direct cause of post-wildfire conditions for sequoias at each grove is a natural ecological dynamic, albeit one indirectly influenced by global atmospheric pollution and a century of fire suppression. Thus, the contemplated planting activity bears no direct connection to addressing the origin of the degradation, which the Park Service indicates will not change in the future because it will continued to suppress fires. If anything, the analysis shows that the Park Service should adjust its policies and allow more wildland fire to occur rather than suppress it, which is the change that the analysis suggests is necessary.

Instead, intensive sequoia gardening would interrupt natural processes and supplant them with a manufactured end-state defined by normative human desires. To the extent that any ecological intervention is appropriate in Wilderness, it is only appropriate to the extent that it removes a direct, human-originated degradation to restore a naturally functioning ecosystem process. In this case that human-originated degradation is fire suppression and climate change itself, both of which must be addressed by the agency and society as a whole. It is never appropriate to use diffuse, indirect human effects to justify the proliferation of additional direct ones. To do so would be to abandon the very premise of Wilderness, that nature dictate its own processes.

Even moving beyond the initial factors and accepting the flawed premise that sequoia mortality may be cast as a redressable human degradation, in the context of climate change, none of the remaining factors in the reference manual should favor intervention. The extensive, intensive, mechanized, and experimental proposal to plant thousands of seedlings is an unprecedented, highly intrusive action with a highly uncertain outcome and a high likelihood of unsustainable success without perpetual, ongoing manipulation.

For Wilderness Watch, Sequoia ForestKeeper, the Kern-Kaweah Chapter of the Sierra Club, the Sequoia Task Force of the Sierra Club, and the Tule River Conservancy,

René Voss – Attorney at Law
Appendix A – Excerpt of Email from Dr. Chad Hanson to Clayton Jordon

From: Chad Hanson <ctanson1@gmail.com>
Date: Tue, Aug 1, 2023 at 12:45 PM
Subject: Re: [EXTERNAL] Willing to have conversation with forest ecologist re: your post-fire planting proposal?
To: Jordan, Clayton <Clayton_Jordan@nps.gov>
Cc: Boerke, Elizabeth L <Elly_Boerke@nps.gov> [other cc’s removed]

[only relevant excerpt from email provided]

We visited a couple of your field plot locations and found an extreme level of trampling by your field crews within the plot boundaries, and extending for a couple of meters beyond plot boundaries. We could not find a square foot of area that hadn't been severely trampled and essentially denuded in one particular plot, while just outside of this plot there was abundant vegetation cover and abundant sequoia seedlings--tens of thousands per acre--but almost no vegetation cover and no seedlings within the plot. On top of that, there are cows grazing in the Wilderness area within the high-severity fire patch of the Redwood Mtn. Grove where you say you are concerned about sequoia reproduction. We took photos and videos of the cows, and cow droppings and soil damage. Some of the droppings are from 2022 and some from 2023, so this has been going on for a long time, yet the Park has not removed them, even as they trample and kill sequoia seedlings. Why?