

August 14, 2022

Elizabeth Berger
Deputy Regional Forester and Objection Reviewing Officer
USDA Forest Service Pacific Southwest Region
1323 Club Drive
Vallejo, CA 94592
objections-pacificsouthwest-regional-office@usda.gov

Attn: Forest Supervisor Theresa Benson, responsible official for the Sequoia National Forest plan revision,

Forest Supervisor Dean Gould, responsible official for the Sierra National Forest plan revision,

Regional Forester Jennifer Eberlien, responsible official for the SCC lists

Re: Sierra and Sequoia National Forests Plan Revision Objection

Sierra and Sequoia National Forest Species of Conservation Concern Objection

Dear U.S. Forest Service Officials Benson, Gould, & Eberlien,

First and foremost, I'd like to commend everyone on their hard work crafting these important Forest Management Revised Plans. I know it has taken tremendous effort and commitment on your part to consider and balance all of the various aspects, including interested parties, while constructing them. Your responsibilities as wildlife managers are great. I would like to express support for your commitment to the Forests in making sure the public trust and wildlife of California is preserved for the next and every generation of Californians and Americans to come. The long term effect of your decisions and guidelines will or won't ensure every person or child and future generations will have the ability to see, hear, and experience the Forests and all of their wildlife when they step into these magnificent lands. It will also affect California's drought conditions, rain and snowfall precipitation, groundwater supply, and our health and wellbeing. Your work, whether it seems obvious or not, is a sacred calling and responsibility. Humanity is dependent on healthy, intact forests to have clean air for breathing, clean water to drink, healthy food and medicine, and a safe climate to live in. So your sacred responsibility to protect the Earth and the entire Web of Life in the region entrusted to your care is a heavy task. And carrying out this momentous task will require great ambition focused on the aggressive conservation of all forest life.

My objections below are linked to my prior comments in letters dated 6/23/2016 & 8/7/2016 and the items that were not addressed or as a result of the revisions became new issues with which to object. You'll notice that I felt a need to elaborate on my recommendations for the Final Plans by addressing specific items and including my justifications for wanting to improve them. I've made these objections because of my deep and abiding connection to the trees, Forests, and entire Web of Life. So know as I address certain aspects of the Revised Plans how grateful I am for this wonderful opportunity. I want to thank each and every one of you at the US Forest Service who reads this letter and thoughtfully considers its content. You've already done a tremendous job, (seriously!) so please keep an open mind for changes to your Final Plans and/or Environmental Impact Statement so that our Forest Management can be

even better. And please continue to do your best to uphold the requirements of the National Forest Management and National Environmental Policy Acts. I respectfully ask you to address the following:

Issue: Deficit of Recommended Wilderness Areas

Part of Plan Revision to which objection applies: Recommended Wilderness

Link between prior comments & objection or new issue arising after comments made:

My prior comments on Recommended Wilderness were not addressed in the Revised Plans plus other issues arising after formal comment period.

Objection Statement: Wilderness areas keep forest habitats intact and allows their interdependent ecosystems (of species above & below the ground) to be healthy & strong. Trees and the entire Web of Life in the Forests need undisrupted flow of resources, habitat, and communication to function and maintain a healthy ecosystem. Establishing and effectively managing networks of permanently protected natural areas for land has long been recognized as a leading strategy for preventing biodiversity loss and maintaining healthy ecosystems. These provide essential services for people, including clean air, fresh water, fertile soil, food and medicine, and support for our mental and physical health. Spending time in nature is linked to lower anxiety levels, lower healthcare costs, and increased productivity. [i](#), [ii](#) Forest Bathing (Shinrin-yoku), also known as Forest Therapy, (a relational practice that brings people into deeper intimacy with natural places), has been scientifically proven to give us many wonderful health benefits. The evidence-based benefits of Forest Therapy includes boosted immune function, remarkably improved cardiovascular and respiratory health, strengthened immunity and lowered inflammation, significant enhancement of people's emotional state, attitude, and feelings towards things, physical and psychological recovery, improved adaptive behaviors, and obvious alleviation of anxiety and depression. [iii](#)

As you read my recommendation, please remember that protected areas play an important role in tackling climate change by keeping carbon stored in ecosystems and by providing people and wildlife the opportunity to adapt to changing climatic conditions. Protecting trees and planting indigenous species to the areas where they were removed is an essential part of combatting climate change and something we can do right now to slow it down. Trees and the soil beneath them are the only proven ways to absorb carbon from the atmosphere that we have control over. Any manmade machinery or techniques have failed in trying to do what trees do on a daily basis. And California's increased wildfires make it more important than ever to create protected Wilderness areas so that timber harvesting and production in forests can't make our climate change and biodiversity loss worse.

If I'm reading the Revised Plans correctly, it appears that no areas were recommended for Wilderness in the Sierra Nat'l Forest and only about 4,900 acre addition to the Monarch Wilderness were recommended in the Sequoia Nat'l Forest. California Wilderness Coalition has thoroughly surveyed the Forests and found a potential 841,700 acres in both Forests to be containing wilderness characteristics and values. Great news, right?

Recommendation: Wilderness areas not only benefit people, they're necessary to ecological integrity, ecological sustainability, and viability of diverse plant and animal populations which will be aided by Wilderness Recommendations and more protective management. For all of these reasons, please make your decisions for Recommended Wilderness Areas based on your analysis of apparent naturalness, outstanding opportunities for solitude, or primitive and unconfined recreation, and human activities and improvements. And please identify, evaluate, and recommend Wilderness areas regardless of "outside sights or sounds" and/or the presence motorized trails. And if you could, please make it possible for members of the public, such as myself, to verify the process for recommending Wilderness Areas. I'm not clear on how decisions were made to choose one area in the preferred alternative over any of the other roadless areas. In addition to knowing what factors were considered, it would be great to know how those factors were used to make decisions. Perhaps some kind of system could be developed with an explanation of how that system was used? One with a transparent methodology that someone like me can verify.

Alternatives B and B-modified fail to embrace the conservation requirements of the 2012 Planning Rule, which I believe the Forest Service must follow, yes? Please include all areas of the Recommended Wilderness Alternative C, and at a minimum, protect it from logging and roadbuilding so these areas are preserved for future generations to enjoy. And as part of the Final Plans, please include the following Proposed Wilderness Areas as suitable for inclusion in the National Wilderness Preservation System. They have wilderness characteristics equal to or surpassing the one area that was recommended for Wilderness in the Revised Plans:

1. **Devil Gulch-Ferguson Ridge Proposed Wilderness (South Fork Merced River) in the Sierra Nat'l Forest:** This 46,298-acre wilderness proposal on the Sierra Forest is one of the largest and undeveloped low elevation wild places in the Sierra Nevada. The South Fork Merced WSR flows through the proposed Wilderness and its roadless qualities help protect the river's biotic integrity and its state-designated Wild Trout Waters. Protection of the area would facilitate the migration of species in response to climate change from the Sierra foothills into Yosemite National Park. The area provides habitat for Pacific fisher, western pond turtle, California spotted owl, and great gray owl and it supports sensitive plants and a rare example of an undisturbed Ponderosa pine forest. Leading into the heart of the area, the Hite Cove Trail along the South Fork is a popular spring wildlife destination. Boundaries were adjusted to avoid existing roads, fuel breaks, motorized trails, and private inholdings. The boundaries are best represented in the Devil Gulch-Ferguson Ridge Recommended Wilderness Map for Alt. E.

2. **Ansel Adams – Mt. Raymond Proposed Wilderness Addition in the Sierra Nat'l Forest:** This 9,117-acre addition to the Ansel Adams Wilderness on the Sierra Forest is also directly adjacent to Yosemite National Park and encompasses the south bank of more than four miles of the South Fork Merced Wild and Scenic River. A primary purpose of this proposal is to protect the South Fork's biotic integrity, as well as the exposed underbelly of Yosemite National Park. Segments of Iron and Grizzly Creeks flow through the area into the South Fork. Old growth mixed conifer forests, meadows, streams and lake systems represent intact ecosystems that support California spotted owl, Yosemite toad and Sierra yellow-legged frog. Opportunities for solitude and

primitive recreation abound, including the Iron Creek, Grizzly Creek, and Chiquito Pass Trails, which lead through the proposed wilderness to the South Fork and Yosemite Park. Boundaries were adjusted to avoid roads, motorized trails, and private inholdings. These boundaries are best represented in the Ansel Adams Mt. Raymond Additions 1 Alt. C map.

3. **Bear Mountain Proposed Wilderness (Potential Dinkey Lakes Addition) in the Sierra Nat'l Forest:** This 9,245-acre proposed wilderness on the Sierra Forest is adjacent to the existing Dinkey Lakes Wilderness, but separated from the wilderness by a wide corridor that includes the Swamp OHV Route. Elevations range from 6,000 feet to the 9,526-foot-high peak of Bear Mountain. Forests and streams support significant habitat for Pacific fisher, American martin, northern goshawk, California spotted owl, Lahontan cutthroat trout, and Sierra Nevada yellow-legged frog. The area has an extensive area of glacially carved granite, including the magnificent Dinkey Dome, a favored destination of rock climbers. Dinkey Creek, an eligible WSR, flows through this area, providing seasonal class V whitewater kayaking in a spectacular setting. Campgrounds in the nearby Dinkey Creek Recreation Area provide ideal basecamps to explore the Bear Mountain potential wilderness, and the Dinkey Creek eligible Wild and Scenic River. CalWild excluded all legal roads, motorized trails, and private inholdings from the wilderness proposal. This proposal is best reflected by the Bear Mountain Alt. C map.

4. **Sycamore Springs Proposed Wilderness in the Sierra Nat'l Forest:** This 17,907-acre wilderness proposal on the Sierra Forest encompasses the lower segment of Dinkey Creek and the highly rugged and scenic Patterson Bluffs, Indian Rock, and Black Rock. The area includes ecosystems under-represented in the wilderness system and support numerous rare, threatened, and endangered species of wildlife and plants. Lower Dinkey Creek offers world class experts-only whitewater kayaking that attracts international boaters. The proposed wilderness would help protect the biotic integrity of Dinkey Creek, an eligible Wild and Scenic River. Rich in cultural and historical values, the area is of special interest to local Native Americans. Boundaries were adjusted by CalWild to avoid popular fixed climbing routes in the Patterson Bluffs and to exclude roads and powerlines. These adjusted boundaries are best reflected in the Sycamore Springs Recommended Wilderness maps for both Alt. C and E.

5. **Monarch Proposed Wilderness Addition West (Kings River) in the Sequoia and Sierra Nat'l Forests:** This 66,322-acre proposed wilderness addition to the existing Monarch Wilderness on the Sequoia and Sierra Forests would provide a protected corridor facilitating the migration of species in response to climate change from 1,000 feet elevation to 14,000 feet elevation. Encompassing the designated and eligible segments of the Kings Wild and Scenic River, the wilderness would help protect the biotic integrity of the river, its state-designated Wild Trout Waters, and its watershed. The area includes ecosystems under-represented in the wilderness system and supports Pacific fisher and other rare, threatened, and endangered wildlife and flora. Just a few of its outstanding recreation values include whitewater boating on the Kings River and hiking/backpacking on the Kings River National Recreation Trail. The Yucca Point Trail provides a short hike down to the magnificent confluence of the Middle and South Forks Kings Wild and Scenic Rivers. CalWild excluded roads and existing motorized trails in the Crabtree Hollow area. They did keep most of the former Verplank

Trail in the proposed wilderness. Verplank is a motorcycle trail so overgrown and damaged by wildfire that it is virtually impassable and difficult to find. CalWild is willing to discuss further boundary changes if needed. This proposal is best reflected in the Monarch Wilderness Addition Alt. C map (although this map excludes the Verplank Trail and much of the southwest corner of the roadless area).

6. **Golden Trout Proposed Wilderness Addition (North Fork Kern River) in the Sequoia Nat'l Forest:** This 41,282-acre addition to the existing Golden Trout Wilderness on the Sequoia Forest encompasses the rugged canyon of the North Fork Kern Wild and Scenic River and several of the river's major tributaries. Providing habitat for the Pacific fisher, foothill yellow-legged frog, slender salamanders, and several rare plants, the area includes ecosystems under-represented in the wilderness system, including part of the Freeman Creek Giant Sequoia Grove. The President George H.W. Bush Giant Sequoia Tree is adjacent to the area. CalWild excluded all legal roads, most motorized trails, and fixed climbing routes at Hermit Rock. The popular Needles climbing area is avoided altogether. The northern segments of the Rincon and Rattlesnake Creek Trails leading to the existing wilderness boundary were included in the wilderness addition to discourage illegal entry, but the southern segments of these trails remain outside of the proposed wilderness and open to encourage use of loop routes with other trails. This is best reflected in the Golden Trout Addition Alt. E map.

7. **Domelands Proposed Wilderness Addition West in the Sequoia Nat'l Forest:** This 26,697-acre addition to the existing Domeland Wilderness on the Sequoia Forest encompasses scenic Sirretta Peak and the source of Salmon Creek (an eligible WSR). The addition also includes the Twisselman Botanical Area, which is the only known location in the California where foxtail, limber, western white, Jeffrey, and lodgepole pine all occur. The area is the southern-most limit of several Sierra Nevada plant species, including foxtail pine. Adding this area to the Domeland Wilderness would improve and protect biological connectivity between the Kern Plateau and the lower elevation Kern River canyons. CalWild adjusted boundaries to avoid all legal roads and the Cannell Meadow National Recreation Trail (a popular motorcycle trail). The addition does include the Sirretta Peak Trail, which is currently open to motorcycle use even though the Forest Service promised to close the trail to motorized use in a legally binding settlement agreement in 1990. These adjustments are best reflected in the Domeland West Addition Alt. E map.

8. **Cannel Peak Proposed Wilderness in the Sequoia Nat'l Forest:** The 30,910-acre proposed wilderness on the Sequoia Forest encompasses the east slopes of the rugged North Fork Kern Wild and Scenic River. It also includes segments of two North Fork tributaries eligible for WSR protection, Salmon and Brushy Creek. Salmon Creek tumbles over one of the highest waterfalls in the southern Sierra in the heart of the proposal and Brushy Creek is a popular whitewater kayak run. With elevations ranging from 3,000 to 9,500 feet, the area supports an incredible diversity of plants and animals and includes ecosystems under-represented in the wilderness system. Stands of endemic Piute cypress grow here and wet meadows on the edge of the Kern Plateau are home to the endangered mountain yellow-legged frog and several species of salamanders. The proposed wilderness would protect the high biotic integrity of the North Fork and provide important biological connectivity between the river and the higher elevation Kern Plateau. CalWild adjusted boundaries to ensure that the Rincon

Trail and Cannell Meadows National Recreation Trail, which are popular motorcycle and mountain bike routes, are outside the proposed wilderness. Service roads, powerlines, and other facilities associated with the Kern River #3 Hydroelectric Project were also excluded. They also intended to exclude the network of “Edison” trails popular with mountain bikers in the southwest corner of the area but because these trails are not legal and cannot be found on official maps, there may be some overlap. This proposal is best represented in the Cannell Peak Alt. E map.

9. Stormy Canyon Proposed Wilderness in the Sequoia Nat'l Forest: This 32,000-acre proposed wilderness on the Sequoia Forest encompasses the west slopes of the rugged North Fork Kern Wild and Scenic River. It also includes Bull Run Creek (an eligible WSR) and several other tributaries flowing from the Greenhorn Mountains, which helps to protect the North Fork's high biotic integrity. The entire area provides a scenic backdrop to the thousands of people who recreate in and along the North Fork. With ecosystems underrepresented in the wilderness system, the area also provides important biological connectivity between the Kern Plateau, North Fork Kern, and the Greenhorn Mountains. The proposal includes part of the Baker Point Botanical Area, home to many “rock-loving” rare plants. CalWild adjusted the proposed wilderness boundaries to exclude popular mountain bike routes such as the Whiskey Flat, Tobias, and Baker's Point trails, as well as the upper Bull Run motorcycle trail. They recently became aware of a network of unofficial trails associated with the Whiskey Flat Trail in the vicinity of Stormy Canyon. We would be willing to exclude these trails if there is any official map depicting them. The historic Baker's Point lookout and communications site is also excluded. This proposal is best represented by the Stormy Canyon Alt. E map.

Documents:

i Largo-Wight, E., Chen, W., Dodd, V., & Weiler, L. (2011). Healthy Workplaces: The Effects of Nature Contact at Work on Employee Stress and Health. Public Health Reports 126(1): 124–30. Accessed May 15, 2022
<https://doi.org/10.1177/00333549111260S116>

ii Bird, W. (2007). Natural Thinking: Investigating The Links Between The Natural Environment, Biodiversity And Mental Health. Report for the Royal Society for the Protection of Birds. Accessed May 16, 2022.
http://ww2.rspb.org.uk/images/naturalthinking_tcm9-161856.pdf

iii Environmental Health and Preventive Medicine "Medical empirical research on forest bathing (Shinrin-yoku): a systematic review" Ye Wen^{1,2}, Qi Yan¹, Yangliu Pan¹, Xinren Gu^{1*} and Yuanqiu Liu^{1*}
<https://environhealthprevmed.biomedcentral.com/articles/10.1186/s12199-019-0822-8>

Issue: **Need clarification on Sustainable Recreation's Desired Conditions & Objectives**

Part of Plan Revision to which objection applies: **Sections under Sustainable Recreation listed below.**

Link between prior comments & objection or new issue arising after comments made:

Clarification needed to address my earlier comments about stronger protections for critical wildland ecosystems, specific to Sustainable Recreation.

Objection Statement: This is more of a recommended improvement, rather than an objection. Visitors leaving trash behind in the Forests on roads, hiking trails,

campgrounds, and by rivers are generally not being mindful of their impact on the Forests. This is detrimental to wildlife and mars the wonderful experience of being in Nature. They simply need education and constant reminders. Please add in wording to both Final Plans specific to educating the public on how to be mindful of their impact on the forest and commit to resource stewardship, including packing out their trash if trash cans aren't available and "leaving no trace behind".

Possible added wording for the following two items is **bolded and underlined** so that they read something like this:

Desired Conditions (REC-FW-DC)

06 Visitors can connect with nature, culture, and history through a range of sustainable outdoor recreation opportunities and are committed to resource stewardship, **including but not limited to packing out trash and "leaving no trace behind"**.

Objectives (REC-FW-OBJ)

02 Within 15 years of plan approval, institute a sustainable, dispersed recreation program that relies on visitor self-sufficiency and responsible recreation use, in areas outside of developed sites. **Accomplish this, in part, by educating visitors on how to be mindful of their impact on the forest and why it's important to commit themselves to responsible resource stewardship, including but not limited to packing out their trash if trash cans aren't available and "leaving no trace behind"**.

Issue: Designation of and Protections for Wild & Scenic Rivers

Part of Plan Revision to which objection applies: Sections under Wild & Scenic Rivers listed below.

Link between prior comments & objection or new issue arising after comments made:

The US Forest Service has yet to fully address my comments on better protections and restoration of critical water resources, and on developing measurable protective standards to prevent damage from forest use.

Objection Statement: I want to express my gratitude for the determination that many more rivers were eligible for designation as Wild & Scenic (hurray!). But if I may point out, there is much to be repaired in the unfortunate purge of previously eligible WSRs identified in the 2016 Sierra Revised Forest Plan (633.5 miles) and the far fewer eligible stream in the 2019 Sierra Final Plan (46.9 miles). While I don't know why or how this could have occurred, I would greatly appreciate a re-evaluation of the 586.6 eligible miles of WSR that were purged. It's important to consider the entire contribution of river flow provided by upper segments and watersheds, as well as the tributaries and downstream segments. They're all essential to the health and biotic integrity of larger rivers and watersheds. And when our rivers and watersheds are healthier, we're healthier.

While there's lots of good stuff in the Plans on Wild & Scenic Rivers, visitor use and grazing, plus other kinds of damage to our WSRs desperately need better monitoring and management please. Perhaps some kind of management provision is in order? One that ensures WSR monitoring and updating of the Comprehensive River

Management Plans. (I've heard many of the CRMPs of WSRs haven't been updated for over two decades and don't reflect the many changes in recreational use.)

Recommendation: To address this chronic problem, please adopt a management standard in both Final Plans requiring the monitoring of use impacts on WSRs and updates of the appropriate CRMPs when needed to resolve those problems.

And lastly, to reduce the risk of contamination from fuels and toxic materials in RCAs, please revise **WTR-RCA-STD 03**. I leave it to the forest experts, scientists, and researchers to determine the best wording for protecting WSRs from any storage of fuels or toxic materials within proximity to RCAs, not only long-term. This would include not allowing refueling by RCAs as well, unless there was no other way to refuel.

Issue: A Few of the Protections Under Animal & Plant Species Need Further Clarification and/or Improvements

Part of Plan Revision to which objection applies: **Sections under Animal & Plant Species listed below.**

Link between prior comments & objection or new issue arising after comments made:

The Revised Plans only partially address my prior comments on protecting the habitats of all at-risk species. Therefore I needed to elaborate on specific items in the Plans regarding vulnerable and at-risk species which need measurable protective standards to safeguard their populations and habitats. Also includes other issues arising after formal comment period.

Objection Statement: The Revised Plans show commitment to protecting endangered species and Species of Conservation Concern. This is awesome. May I please request a few minor tweaks to ensure the beautiful creatures of these Forests have what they need to thrive? I apologize if I'm being picky, but details really count in these Plans. Thank you for your patience with my requests!

Fishers:

I'm applauding sections SPEC-FSHR-GDLs 01 and 02 as important starts to conserving Fishers. But if I may, I'd like to request the following for protecting the reproduction of Fishers in high quality habitats of any patch size:

Desired Conditions (SPEC-FSHR-DC)

SPEC-FSHR-DC 03 additions are **bolded & underlined**:

03 Fisher potential denning habitat, especially high quality denning habitat, is well distributed throughout the fishers' range, and occurs in ecologically sustainable and resilient locations. Areas likely to be used by breeding fisher are protected from **commercial timber harvest and production as well as other** disturbances that could cause breeding failure.

Standard (SPEC-FSHR-STD)

SPEC-FSHR-STD 01 additions are **bolded & underlined**:

01 Within known fisher den clusters **and den buffers**, retain habitat quality in suitable fisher habitat:

(Add New Standard under) SPEC-FSHR-STD

02 In areas defined as high quality denning habitat, limit vegetation management activities to hazard tree abatement, surface/ladder fuel treatment, single-tree selection for the purpose of separating tree clumps, and low-intensity prescribed fire. Use methods that do not fundamentally change stand structure, canopy cover, or CWHR category.

Guidelines (SPEC-FSHR-GDL)

01 Note: Please add in/revise that the Fisher's habitat be respected on blocks less than 25 acres. Because of the reduction in their habitat & disturbances caused by drought, beetles, and wildfire, their potential denning habitat may occur on smaller patches of land.

01, b. ii. Note: Please revise to include the Fisher's potential denning habitat of 1,000 acres in the Fisher's immediate home range.

02 Note: Please add in some assurance of protection for the connected habitats where Fishers hunt, procreate, and den their offspring.

04, b. Please change 30% to 50%, so that it reads: Avoid creating areas with less than **50 percent** tree or shrub cover and devoid of other hiding structures that would completely sever a potential corridor.

Sierra Marten:

Please add specific plan components that retain high quality Marten habitat necessary for its survival. That way the intense and widespread logging allowed under the new Forest Plans won't push their species to becoming endangered in the Sierra Nevada. The areas where Marten dwells need protection under the Plans by specifying how much forest cover and structure to leave for the Marten's home range. It's important to ensure that ecological conditions, denning, and resting habitat areas required by Marten are maintained and/or restored.

Guideline (SPEC-SM-GDL)

01 In the "Retain a patchy mosaic of shrubs and understory vegetation," sentence, please change the goal of 10-20% shrub cover at the home range scale to the goal of **40% shrub cover** at the home range scale. 10-20% cover is far too low for desired conditions.

Add 2 new guidelines under SPEC-SM-GDL:

02 Please maintain and promote California Wildlife Habitat Relationship system 6, 5D, 4D, 5M and 4M, including old forest structural complexity such as shrubs and logs where they exist in Sierra Marten habitat management areas.

03 Near Marten den sites, please protect marten from noise and activity disturbances in a 100-acre buffer around den sites within a limited operating period from May 1 through July 31 when conducting vegetation treatments, road construction, and potentially disruptive recreational activities (as determined by wildlife biologist).

California Spotted Owl:

I'm celebrating the sections of the 2022 Forest Plans that provide clearer plan direction for California Spotted Owl than the 2016 and 2019 Draft Plans did. I ask for a few additions, and would be so grateful if you could please include these in the Final Plans:

Desired Conditions (SPEC-CSO-DC)

02 Please change the wording from "At least 40 to 60 percent (depending on the terrestrial vegetation type and site conditions) of each California spotted owl territory consists of the highest quality nesting and roosting habitat..." to "**At least 70 percent** (depending on the terrestrial vegetation type and site conditions)..." In truth, 80% is the most desirable condition for them.

Also in California Spotted Owl territories that do not currently meet the territory desired condition (as specified in SPEC-CSO-DC-02), please retain habitat quality in the best available nesting and roosting habitat wherever it exists throughout the territory. And please make sure that habitat modification and mechanical treatments don't cause a loss of Spotted Owl individuals or pairs in their Protected Activity Centers. This includes adding a desperately needed standard to prevent the removal of trees greater than 20" dbh and to not reduce the stand's average canopy cover by more than 10%.

Standards (SPEC-CSO-STD)

02 Please change bullet points: (**changes bolded & underlined**)

- retain connected areas of **at least 80 percent** canopy cover between the known nest site (if nest site is not known, use the most recent known roost site) and areas in the remainder of the protected activity center;
- avoid mechanical treatments within a **20-acre** area surrounding the most recent known nest;

03 Note: Please make sure that Spotted Owl Protected Activity Centers include the territory for singles as well as the territory for pairs. And that the criteria for designating activity centers and territories include the presence and survival of singles. And when thinking about abandoning the Spotted Owl's PACs, please extend the amount of time an area is surveyed. These magnificent creatures' territories can cycle with the landscape and available prey. They can return to PACs after it appears that they've abandoned them.

Guidelines (SPEC-CSO-GDL)

01 Please revise this section to allow habitat reduction only in Protected Activity Centers that are unoccupied. And please analyze the effects of authorized habitat modifications within these PACs, disclosing how many would be effected by habitat modification over several years, projecting the probable loss of occupancy, reproduction, and survival due to these habitat modifications.

Regarding the Spotted Owl's habitat, please allow territory boundaries to include the best available habitat with the highest probability of use based on expert judgement and field observations from any recent protocol surveys. This would change the shape of their territories from circles to whatever the best available habitat is.

Based on the U.S. Fish and Wildlife Service's Conservation Objectives Report, which states that salvage logging negatively affects the California Spotted Owl, let's please

minimize the effects of salvage logging in their territories. This would mean dead and fire-damaged trees would be left in place instead of being removed within occupied Spotted Owl territories. Of course, the exception to this would be hazardous trees and trees removed for firefighter safety while facilitating landscape fire for ecological benefits.

Great Gray Owl:

Since the FEIS acknowledges that substantial concern exists regarding the Great Gray Owl's ability to persist on the Sierra National Forest, and also recognizes threats to Great Gray Owl persistence posed by timber harvest and grazing, thank goodness these things are within the US Forest Service's control. At first, the New Forest Plan components seem to address these issues, but they're unfortunately insufficient and actually reduce Great Gray Owl's breeding habitat protection compared to the current Plans. It would help if the FEIS considered key impacts to Great Gray Owl from the New Forest Plans.

Desired Conditions (SPEC-GGO-DC)

To protect the GGO's viability, can you please provide a complete definition of their Protected Activity Center that includes what kind of meadow habitat is needed to support its target prey base and allow for establishment of PACs that align with regional guidance? This would include PACs of at least 50 acres and up to 100 acres of the highest quality nesting habitat around known and suspected breeding sites of the forested area and adjacent meadow. A PAC should encompass the meadow or meadow complex that supports the habitat needs of prey species associated with breeding, such as rodents. It would also be wonderful if changes were adopted to ensure greater snag retention for old forest species.

Guidelines (SPEC-GGO-GDL)

01 Note: Can you please elaborate on the meadow areas? For example, in meadow areas associated with Great Gray Owl's Protected Activity Centers, please maintain greatest herbaceous vegetation commensurate with site capability. And determine site-specific meadow capability using fenced grazing exclusions for the meadow portion of the PAC. Where appropriate, please add a clause within GGO's PACs so that multiple use activities don't compromise the structure and function of their PACs.

Please remove the following wording from Sequoia plan (p.194): "Great gray owl PACs may be removed after stand replacing events if the habitat has been rendered unsuitable or may be removed as otherwise provided in current regional guidance."

Northern Goshawk:

I'm celebrating how you've included the Northern Goshawk as a Species of Conservation Concern and for providing a clear definition of breeding habitat. And I'm also very pleased that the Plans establish a Goshawk PAC in the glossaries. Way to go! May I ask, is it possible to please extend the 200 acres of best available contiguous

breeding habitat surrounding the nest to 500 acres? Scientists who've studied the splendid Northern Goshawk in the Sierra Nevada have recommended this.

Also, can you please add protections for the Goshawk nesting habitat and PACs? Habitat loss from logging threatens the Goshawk in the Sierra and Sequoia final Plans (FEIS, p. D-81), and we don't want the Plans to pose a threat to Goshawk viability, yes? Please provide the conditions necessary for Goshawk's preservation including minimizing human disturbances in PACs. And if you could, please let the FEIS accurately convey Goshawk's imperiled conservation status and elevation range in the Plan areas.

Willow Flycatcher:

The FEIS identifies habitat loss from grazing and other forest management as a threat to Willow Flycatcher that can be addressed by restoring meadows (FEIS, p. D-88, D-89). Nevertheless, recommendations from Willow Flycatcher experts on how best to restore meadows and encourage Willow Flycatchers return to breed were left out of the Final Plans. So I ask that the Plans more directly address the restoration needs of Willow Flycatcher and that the ecosystem plan components address specific urgent meadow restoration priorities. I leave the decision on how to do this to the experts, scientists, and researchers. Having said that, I would ask the following:

Standards (SPEC-WF-STD)

01 Please note where to strike out words... "In willow flycatcher-occupied sites ~~receiving late season grazing~~, if habitat conditions are not supporting the willow flycatcher or are trending downward, ~~modify or~~ suspend grazing at those sites."

02 Please note where to strike out words and replace with a small **bolded & underlined phrase**... "And during allotment management planning or when authorizing livestock or pack stock use, determine occupancy of willow flycatcher ~~in affected meadows larger than 15 acres that have standing water on June 1 and a deciduous shrub component capable of providing willow flycatcher habitat, using established protocols~~ **in potential habitats**."

Potential Management Approach

Regarding habitat restoration opportunities, please consider this bullet point instead:

- In historically occupied meadows where Willow Flycatchers are not detected, assess restoration needs of the meadow. If habitat is degraded, develop restoration objectives and take appropriate actions such as physical restoration, and limiting or re-directing grazing activity.

Issue: Enhancements Needed on Timber Harvesting Guidelines

Part of Plan Revision to which objection applies: **Sections under Suitability for Timber Harvesting & Production listed below**

Link between prior comments & objection or new issue arising after comments made:

My prior comments on ecosystem health and the effects of timber harvesting and production on habitats have not been addressed. Therefore, hoping to better be heard, I've elaborated on specific aspects of the Plans to gain clarification and improve the

wording used in the Final Plans. Also includes other issues arising after formal comment period.

Objection Statement: The UN Convention on Biodiversity (CBD) states that, "There are currently two major environmental crises that the planet and humanity are facing: climate change and biodiversity loss. Habitat loss, as a result of human activities, remains the primary driver of the biodiversity crisis, which means that protecting and restoring habitat must be at the heart of any strategy to conserve nature." ^{iv} Widespread logging and planting trees intended for harvest does not accomplish this goal to conserve nature and ensure natural and robust biodiversity in the forest. Partially or weakly protected areas, in which harmful and extractive activities are allowed to continue, might at best prevent further loss of species but will not support the recovery of ecosystems. Protected area networks need to be designed and effectively managed based on science and Indigenous knowledge. ^{v, vi}

I respectfully ask that the Forest Plans address the trees and Forests essential value over commercial timber harvesting and production. That includes how trees remove unhealthy carbon from the atmosphere, provide clean air to breathe, and clean water to drink through their essential role in Nature's Cycle of Water. ^{vii} I invite the US Forest Service to support of the public's ecological and cultural values in ensuring our forests thrive, bringing back healthy and balanced precipitation levels to the region, ending the intensity of our drought in CA, and protecting endangered species that call the Sierra Nevada home. It is unequivocally dangerous and irresponsible at this time to allow short term profit ventures of logging to decimate the forests, both before and after wildfires. Now more than ever, we need to bring our Forest Management policies into balance and harmony with Natural Laws of Cause and Effect. And we mustn't turn away when evidence points to deforestation's perilous effects.

Recommendation: Because we are at emergency levels with climate change where trees, forests, and the land beneath them are needed more than ever to absorb carbon from the air, the part of the Plans assessing suitability for commercial timber harvesting and production should reflect that. Please know my recommendations below are not about trees that are carefully selected and removed for safety and restoration of healthy and vital forest conditions. And I ask that the US Forest Service be realistic about climate change, drought, clean air and water, rain and snowfall, and the survival of forest ecosystems that are home to endangered species. Given that the US Forest Service is allowing commercial timber harvesting and production at this time, please add these general guidelines to the Final Plans:

- Please establish a 24-inch diameter limit on logging to protect mature forests and promote their carbon and climate benefits.
- Please add more adequate protections for old forests and endangered or at-risk species like the California Spotted Owl, Great Gray Owl, Fisher, Northern Goshawk, Sierra Marten, and Willow Flycatcher. Because the California Spotted Owl population has declined precipitously in the National Forests of the Sierra Nevada region for more than two decades, and because the total number of endangered Fishers in the southern Sierra Nevada is likely fewer than 300, we need a more sensible limit to logging on the Final Forest Plans. Logging of large trees up to 40 inches in diameter, despite a deficit of large trees, decreases protections for the mature forest habitats that these species

need to survive. Let's please increase our protection of the larger and older tree canopy cover that Spotted Owls and Fishers need. Also, the Plans need some improvement to ensure things like large snags and large trees are sufficiently abundant for them to thrive.

- Please prohibit logging along waterways to avoid erosion and pollution from sediment and protect wildlife habitat.
- Please establish guidelines in the Final Plans for replanting only indigenous species in the local places they were taken out of the Forests. And ensure that the trees are planted in combinations with other trees and plants that are necessary to their survival. Please regulate that only organic, endemic materials be used for replanting and restoring what was previously destroyed with sensitivity to soil composition and natural cycles of the local forest habitats. This includes the need to take care with elevational zones, vegetation types (including "dry" and "moist" mixed conifer), and explanations of the method used to assign forest type. That way, if replanting is deemed necessary, the correct species will be planted where they have the best chance to thrive long term and recover what's been lost.
- Please use independent forest and fire ecologists when determining how to handle post-fire determinations, "thinning" of the forest, or replanting and restoration efforts. Using scientists and consultants that are being paid by the US Forest Service to determine what's best for our Forests seems unethical due to the inherent conflict of interest. Since the US Forest Service profits off of logging, and depends on the sales from logging in part to fund their budgets, this makes their collection of scientists focus on an agenda of justifying logging for profit instead of focusing on an agenda of healthy and intact biodiverse forests.

Complex Early Seral Habitats Guidelines (TERR-CES-GDL)

Retention of high vegetation burn severity area without harvest is critical to our Forests regenerating themselves. Burned and dead trees are needed for healthy forests to thrive after wildfires. This is true in even high severity patches where all the trees are killed. In a very short period of time after forest fire, if the forest is left intact and no trees are removed, there is vigorous regrowth of the tree species that fall during the fire. This occurs because dead trees, left in place, create the needed moisture and microbial biomass for new life to grow. [viii](#) The burned forests need to be left largely intact to do what Nature evolved them to do in relationship with fire, namely regenerate themselves. The dead standing trees are necessary for cavity-nesting species. And shrub patches after wildfires have incredible biodiversity. Biodiversity in our forests depend on wildfire and natural regrowth from and around what dies. California Spotted Owls return to areas of forest that have burned because those areas have an increase in their prey species. [ix](#) So they'll mate and nest in the living portions of their territory, but hunt in the burned forests where food is more plentiful for them which increases their chance of survival and reproduction rates. Studies of post-fire epicormic branching in Sierra Nevada by the USDA have shown that "dying" trees logged under current salvage guidelines could survive if left alone to regenerate. [x](#) And there is a history of forests failing to regenerate if they're logged after fire. [xi](#)

Recommendation: Please improve the wording of the following guideline in both Plans as follows... (old wording is ~~striked-out~~, change is in **bold & underlined**)

05 Large fires with more than 1,000 acres of contiguous blocks of high vegetation burn severity in forest vegetation types (ponderosa pine, Jeffery pine, dry or mesic mixed conifer, and red fir) should retain at least ~~40~~ **70** percent of the high vegetation burn severity area without harvest to provide areas of complex early seral habitat.

Forestwide Components for Watershed Conditions

Desired Conditions (WTR-FW-DC)

Forest species diversity, composition, and age structure are indicators of forest health. If timber production isn't intelligently and sparingly applied to minimize the destruction of forest ecology, then healthy soils and resilient landscapes can't exist. As currently written, this Desired Condition is an oxymoron. Let's please fix that.

Recommendation: Please improve the wording of the following DC in both Plans as follows... (old wording is ~~striked-out~~, change is in **bold & underlined**)

04 Soil and vegetation functions in upland and riparian areas are sustained and resilient. Healthy soils provide the base for resilient landscapes and nutritive forage for browsing and grazing animals, ~~and support~~ **and** timber production **is sparingly applied so as to not destroy the balance of healthy forest ecosystems**. Healthy upland and riparian areas support healthy fish and wildlife populations, enhance recreation opportunities, and maintain water quality.

Timber and Other Forest Products

Desired Conditions (TIMB-FW-DC)

To date, the sustainable forest product yields have caused serious harm to wildlife and land of the Sierra Nevada. "Restoration" for past logging has been focused on continuous and unnatural timber production for harvesting, which isn't compatible with current understanding of ecological dynamics underlying biodiversity, ecosystem resilience and adaptive capacity. Consequently, if the following Desired Condition is to genuinely meet the pace or scale of ecological restoration as it implies, new wording is required so that an effort is made to genuinely restore the forest to its original condition prior to logging.

Recommendation: Please improve the wording of the following DC in both Plans as follows... (old wording is ~~striked-out~~, change is in **bold & underlined**)

01 ~~Predictable and~~ **Ecologically** sustainable forest product yields contribute to maintaining ~~and improving~~ local and regional industry infrastructure and workforce and are sufficient to meet the needs of the desired pace and scale of ecological restoration, over the next several decades **habitat connectivity, and prevention of degradation due to reduced structural variability and tree-species diversity over large geographic areas**.

Since the following Desired Condition is not desirable from the standpoint of the Forests and the entire Web of Life, in the very least, let's be straightforward about it. Harvesting and production of timber has never contributed to ecological sustainability. And scientists worldwide have unanimously demonstrated in study after study that logging doesn't contribute to social sustainability. In fact it does the opposite in a

multitude of ways. Timber production does, however, contribute to economic sustainability. How about a fresh approach? Let's make sure this item takes into account climate change, the destruction of forest networks and habitats, and how it's time to put the best and highest good of all before profiting off of market demands.

Recommendation: Please improve the wording of the following DC in both Plans as follows... (old wording is ~~striked-out~~, change is in **bold & underlined**)

02 Production of timber contributes to ~~ecological, social, and economic sustainability~~ and associated desired conditions **for the benefit of commerical logging companies, their workforce, and mills**. A sustainable mix of forest products (including both sawtimber and non-sawtimber) is offered under **sustainable conditions that are favorable to halting climate change and ensuring forest networks and habitats are healthy and connected**. ~~a variety of~~ Harvest and contract methods in response to market demand **will be offered after independed forest ecologists recommend the most sensible and balanced way to proceed**, and Restoration needs **will aim to return the area to its natural state and variability of legacy features and landscape connectivity, and species with specific habitat requirements which make up forest biodiversity**.

As written, the following Desired Condition needs limitations. While salvaging may bring economic value, it does not retain key features in quantities that provide for wildlife habitat, soil productivity, and other required conditions of ecosystems. Dead trees are required for conditions where new life can grow from the soil. They provide moisture, microbial biomass, nutrients, ground cover, and much more. Nature's Cycle of Life, Death, and Regeneration requires dead and dying trees to become the source of unlimited uses by the entire food chain and countless species. This is how forests cycle and are reborn century after century. Let's please make sure this DC reflects that.

Recommendation: Please improve the wording of the following DC in both Plans as follows... (old wording is ~~striked-out~~, change is in **bold & underlined**)

03 Salvage **10 percent** of dead and dying trees **to** captures some of the economic value of the wood while retaining key features in quantities that provide for wildlife habitat, soil productivity, and other desired conditions of ecosystems.

Objective (TIMB-FW-OBJ)

As this objective is written, it is highly irresponsible and reckless without ensuring this amount of logging will be ecologically sustainable. Reasons for this are listed in my prior objections. Here is potential wording to better reflect our needs and the needs of future generations whose well-being depends on the Final Plans striving for balance and harmony between profit-based priorities and life itself.

Recommendation: Please improve the wording of the following objective in both Plans as follows... (old wording is ~~striked-out~~, change is in **bold & underlined**)

01 **Potentially provide** approximately 12 to 18 million cubic feet (MMcf) of sawtimber (60 to 90 million board feet (MMbf) during the first 15 years following plan approval, **as long as independent forest ecologists review and approve timber harvesting plans and contracts and deem them to be ecologically sustainable while contributing** to the local forest products infrastructure.

Goals (TIMB-FW-GOAL)

A couple of things are missing from this goal. First, what kind of disturbance? Because in most cases, if naturally disturbed, it's better to allow natural regeneration to take place. Second, what will be used to restock? And third, how to pay for it?

Recommendation: Please improve the wording of the following goal in both Plans as follows... (old wording is ~~struck-out~~, change is in **bold & underlined**)

01 After **unnatural** disturbances occur on lands identified as suitable for timber production, where consistent with terrestrial vegetation desired conditions, ~~and when funding is available~~, adequately restock these areas **with local, biodiverse, indigenous seedlings** within 5 years of salvage harvest, if applicable, or, when salvage harvest is not used, within 5 years of site preparation **using proceeds from timber sales**.

Standards (TIMB-FW-STD)

The "sustained-yield limit of 15.9 MMcf per year" is extremely high and ecologically unsustainable. Therefore, it should encompass all trees harvested under any conditions or circumstances. The list of exceptions seem like they could be applied in an arbitrary manner and are open to abuse. Interpreted the wrong way, it would be the same as having no limit at all. The exceptions, in my humble opinion, should be removed. Or making determinations about the exceptions should involve independent forest ecologists who are not being paid by the US Forest Service or logging companies and have no stake in profiting off of sold timber.

Recommendation: Please improve the wording of the following standard in both Plans as follows by selecting one of the options... (old wording is ~~struck-out~~, change is in **bold & underlined**)

Option 1:

05 The quantity of timber sold per decade must be less than or equal to the sustained-yield limit of 15.9 MMcf per year, ~~with the following exceptions: salvage or sanitation harvesting of timber stands that are substantially damaged by fire, windthrow, or other catastrophe or that are in imminent danger from insect or disease attack. In these situations, trees may be harvested over and above the sustained-yield limit,~~ consistent with the desired conditions for terrestrial and aquatic ecosystems.

Option 2:

05 The quantity of timber sold per decade must be less than or equal to the sustained-yield limit of 15.9 MMcf per year, with the following exceptions **to be determined, verified, and approved by independent forest ecologists**: salvage or sanitation harvesting of timber stands that are substantially damaged by fire, windthrow, or other catastrophe or that are in imminent danger from insect or disease attack. In these situations, trees may be harvested over and above the sustained-yield limit, consistent with the desired conditions for terrestrial and aquatic ecosystems.

Currently, logging practices of harvesting and production consistently rip apart Forest ecosystems with one priority in mind... profit. Sure, they've had to put up with independent forest ecologists and natural science groups making a fuss about Forest

wildlife and putting climate change first. But by and large, logging companies and their partners at the US Forest Service continue to endanger life as we know it with the continuance of unsustainable logging practices. I invite the US Forest Service to set a higher standard for themselves that prioritizes humanity's need for healthy, intact, biodiverse forests, clean air, clean water, increased rain and snowfall, carbon absorption and storage, a reliable Cycle of Water in the environment, healthy flowing rivers and streams, and a robust Web of Life in the Sierra Nevada mountains.

Recommendation: Please improve the wording of the following two standards in both Plans as follows... (old wording is ~~striked-out~~, change is in **bold & underlined**)
06 Following regulated regeneration harvest (such as group selection) on lands identified as suitable for timber production, create and maintain planting environments that favor **site-specific, indigenous** seedling survival and rapid **appropriate** growth rates **that ensure the integrity of the surrounding ecosystems**. Facilitate early and periodic use of fire to reduce future wildfire-related mortality, and provide sufficient tree numbers to meet future vegetation desired conditions ~~that supporting~~ **healthy and biodiverse wildlife habitats**, ~~a variety of ecosystem services and resilience, including forest products, wildlife habitat and carbon sequestration.~~ Design a site-specific silvicultural prescription **and restocking policy that's in balance and harmony with biodiverse forests and a robust web of life in the Sierra Nevada mountains.** ~~to ensure that lands are adequately restocked within 5 years of a regeneration harvest (see appendix D for stocking criteria).~~

07 When conducting reforestation in response to wildfire, windthrow, insects, pathogens, or other stand-replacing disturbances, create and maintain planting environments that favor **site-specific, indigenous** seedling survival and growth, facilitate early and periodic use of fire to reduce future wildfire-related mortality, and provide sufficient tree numbers to meet future vegetation desired conditions, considering future changes in climate, to provide a variety of ecosystem services ~~including forest products and~~ **that prioritize** carbon sequestration.

Guidelines (TIMB-FW-GDL)

This recommended improvement continues the priority of having healthy Forests and a robust Web of Life in the Sierra Nevada mountains.

Recommendation: Please change the wording of the following guideline in both Plans as follows... (old wording is ~~striked-out~~, change is in **bold & underlined**)
02 Reforestation of suitable lands should be designed to **be in balance and harmony with the natural forest conditions around it.** ~~achieve~~ **Stocking levels**, spatial arrangements, and species composition to facilitate future vegetation **should seek to have the desired condition of mimicking what the forest does naturally where reforestation is being applied.** ~~These~~ **desired conditions** ~~that~~ **should** allow for long-term resilience of the developing forest, while considering ~~potential future plantation management,~~ carbon **absorption and** carrying capacity, wildlife habitat, and climate change adaptation. **These priorities take precedence over any consideration of potential future plantation management.** **Invasive or non-endemic species,** ~~Competing vegetation,~~ fuel levels, and fire risk should be managed to provide for the long-term survival and vigor of reestablishing forests as they move toward maturity.

Potential Management Approaches

I don't know what the following bullet point means. Please advise on what "a variety of potential uses" is.

- Encourage use of small trees and wood biomass to support a variety of potential uses.

In this next bullet point, the words "combining silvicultural" don't belong because silviculture does the exact opposite of restoring forest structure and composition. Since logging aims to create as much profit as possible, it typically uses unnatural methods of planting, growing, and harvesting trees. Unfortunately, this damages and often destroys the habitats where it's conducted on a continual basis.

Recommendation: Please change the wording of the following Potential Management Approach in both Plans as follows... (old wording is ~~struck out~~)

- Where consistent with purpose and need, develop landscape-scale projects that integrate active management and use of wildland fire to increase the pace and scale of ecological restoration, enhance ecosystem resilience, and protect the carbon carrying capacity of the forest. This includes using strategically placed mechanical treatments, including fuelbreaks to encourage greater use of prescribed fire, ~~combining silvicultural~~ and prescribed fire treatments to restore forest structure and composition more safely and effectively, and using strategic fuel treatments and existing burn scars as anchors to facilitate the reestablishment of natural fire regimes at large spatial scales.

Documents:

iv Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services. (2019). Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science- Policy Platform on Biodiversity and Ecosystem Services. E. S. Brondizio, J. Settele, S. Díaz, and H. T. Ngo (editors). IPBES Secretariat, Bonn, Germany. Accessed May 16, 2022.

<https://zenodo.org/record/3553579#.XvI7aSOZNhE>

v Stolton, S., Dudley, N., Avcioglu Çokçalışkan, B., Hunter, D., Ivanić, K.-Z., Kanga, E., Kettunen, M., Kumagai, Y., Maxted, N., Senior, J., Wong, M., Keenleyside, K., Mulrooney, D., Waithaka, J. (2015). Values and benefits of protected areas. In Worboys G., Lockwood M., Kothari A., Feary S., & Pulsford I. (Eds.), Protected Area Governance and Management: 145–168. ANU Press, Canberra, Australia. Accessed May 17, 2022. <https://core.ac.uk/download/pdf/132677617.pdf>

vi Lopoukhine, N. Crawhall, N. Dudley, P. Figgis, C. Karibuhoye, D. Laffoley, J. Miranda Londoño, K. Mackinnon, & T. Sandwith. (2012). Protected areas: providing natural solutions to 21st Century challenges. SAPIENS 5 (2). Accessed May 17, 2022. <https://journals.openedition.org/sapiens/1254>

vii Int'l Journal on the History of Chemistry, "Water in Trees, An essay on astonishing processes, structures and periodicities", Ernst Zürcher, Bern University of Applied Sciences

<https://riviste.fupress.net/index.php/subs/article/download/507/310/2313>

viii Open Journal of Ecology, Vol.2, No.1, 29-37 (2012), "Salvage logging versus natural regeneration post-fire practices in a forest: Soil chemical and microbial aspects", Orit Ginzburg, Yosef Steinberger, Mina & Everard Goodman Faculty of Life Sciences, Bar-Ilan University, Ramat-Gan, Israel

https://www.scirp.org/pdf/oje20120100003_80414982.pdf

ix Nature Conservation Journal, "Effects of post-fire logging on California spotted owl occupancy", Chad T. Hanson, Monica L. Bond, Derek E. Lee
<https://natureconservation.pensoft.net/articles.php?id=20538>

x USDA Forest Service, "Post-fire epicormic branching in Sierra Nevada Abies concolor (white fir)"

<https://www.fs.usda.gov/treesearch/pubs/24951>

xi Journal of Forestry, "Conifer Regeneration after Forest Fire in the Klamath-Siskiyou: How Much, How Soon?", J.P.A. Shatford, D.E. Hibbs, and K.J. Puettmann
<https://academic.oup.com/jof/article/105/3/139/4599251>

If you made it all the way to the end of my objections, congratulations! I'm impressed. Thanks for taking the time. Remember, we are the ancestors of future generations. And the choices we make will affect every generation to come. I ask that you please demonstrate leadership in conservation for the best and highest good of all life dependent on these Forests. Not only by complying with the 2012 Planning Rule, but also by going the extra mile to reverse habitat and biodiversity loss in these Final Plans.

Thank you so much for your gracious attention to my input.

Kind regards,

A handwritten signature in black ink, appearing to read 'Kirstie Palmer', with a stylized, flowing script.

Kirstie Palmer