

BLUERIBBON COALITION

Defending Access · Multiple Use · Public Lands

Date: June 23, 2026

To: Adam Shaw, District Ranger, Salt Lake Ranger District, Uinta-Wasatch-Cache National Forest

Submitted via: CARA online comment portal (Project #303870)

Re: Response to comments and expert declaration submitted by the Alliance for the Wild Rockies (Dr. Chad Hanson) — Big Cottonwood Canyon Watershed Restoration Project Draft EA

PART ONE — RESPONSE FOR THE ADMINISTRATIVE RECORD

Introduction and Summary

The BlueRibbon Coalition (**BRC**) submits these comments in support of the Big Cottonwood Canyon Watershed Restoration Project (**the Project**) and to respond to the comments and attached declaration of Dr. Chad Hanson, submitted through the Alliance for the Wild Rockies (**AWR**). Dr. Hanson is a credentialed wildfire ecologist, and his declaration is serious and should be addressed on the merits. It should also be understood for what it is: an articulation of a minority position within fire science, advanced by its leading proponent, that runs against the prevailing weight of the peer-reviewed literature — including the most recent and comprehensive synthesis by the Forest Service’s own Rocky Mountain Research Station.

Dr. Hanson makes two principal arguments: (1) that high-severity fire is the *characteristic* regime in the Project’s high-elevation forests, so the premise of “uncharacteristic” wildfire is wrong; and (2) that tree removal and fuels treatment do not reduce — and may worsen — wildfire behavior. BRC respectfully shows below that the first argument is partially valid for one forest type but does not undermine the Project as designed, and that the second argument is contrary to the prevailing science and, in several respects, mischaracterizes the sources it cites.

I. The “Characteristic Fire” Argument Does Not Defeat a Project Built Around Aspen and Mixed-Conifer Restoration

Dr. Hanson is correct that high-elevation spruce-fir and lodgepole forests in the Rocky Mountains historically experienced infrequent, often stand-replacing fire (fire-return intervals on the order of one to several centuries). BRC does not dispute that general proposition for the pure subalpine spruce-fir component. But that concession does not carry the Project, for three reasons.

First, the Project area is not monolithic subalpine spruce-fir. The EA’s own vegetation inventory (Table of Vegetation Types by acres) shows the treatment footprint is dominated by **aspen (1,277 ac)**, **aspen/conifer (667 ac)**, and **Douglas-fir mix (1,051 ac)**, with spruce/fir comprising roughly 1,097 of about 4,897 mechanically treated acres. Aspen is a fire-dependent type that *requires* disturbance to regenerate and is actively lost to conifer encroachment without

it. Douglas-fir and the lower-elevation mixed types have mixed-severity regimes with substantially shorter return intervals than subalpine spruce-fir. Dr. Hanson's subalpine framing simply does not describe the majority of the acres actually being treated.

Second, Dr. Hanson's own lead authority supports treatment. He relies on Hood et al. (2021) for the fire-regime description. That source is a USDA Forest Service synthesis chapter (*Fire Ecology of Rocky Mountain Forests*) that, for each forest type — expressly including spruce-fir and aspen — describes “common silvicultural and fuel treatment options for restoration and wildfire mitigation.” Dr. Hanson quotes the chapter's description of the historical regime while omitting that the same authors treat fuels and vegetation management as a legitimate, science-based response. A source cannot be authoritative for the premise and ignored for the conclusion.

Third, the purpose and need is broader than fire-return intervals. The Project is a *municipal watershed* protection project. Big Cottonwood Creek supplies roughly 40% of Salt Lake City's culinary water, and the canyon contains two ski areas, State Route 190, the town of Brighton, and extensive recreation infrastructure. Even where stand-replacing fire is “characteristic” in an ecological sense, the agency has independent statutory and Forest-Plan authority to manage fuels to protect water supply, life, and property in the Wildland-Urban Interface. The relevant question is not whether fire is natural; it is whether the agency may act to protect identified values at risk. It plainly may.

BRC nonetheless recommends that the agency sharpen the record by stating, for the spruce-fir component specifically, that treatment is justified on WUI / values-at-risk and watershed-protection grounds rather than solely on fire-regime departure. That framing both answers Dr. Hanson and insulates the finding from challenge.

II. The Prevailing Science Contradicts the Claim That Treatment Does Not Reduce Wildfire Severity

Dr. Hanson's central empirical claim — that denser forests do not burn more severely and that thinning does not curb fire behavior — is contrary to the most current and comprehensive synthesis available, produced by the Forest Service's own scientists.

Davis et al. (2024), “Tamm Review,” *Forest Ecology and Management* (USFS Rocky Mountain Research Station, The Nature Conservancy, University of Montana). This meta-analysis of 40 studies across 11 western states — spanning ponderosa pine up through the subalpine zone — found “**overwhelming evidence**” that mechanical thinning with prescribed burning, mechanical thinning with pile burning, and prescribed burning alone reduce subsequent wildfire severity by **62% to 72%** relative to untreated areas, with efficacy that “did not vary among forest types” and held “across a range of fire weather conditions.”

Two findings of that review map directly onto this Project's design and onto Dr. Hanson's objections:

- **Treating surface fuels is what matters — which is exactly what this Project does.** The review found that “thinning only was less effective — underscoring the importance of treating surface fuels.” The BCC Project is not a thin-only project; it pairs cutting with pile

burning and broadcast burning specifically to address surface and ladder fuels. Dr. Hanson's critiques of "open," thinned-only stands therefore attack a design the Project does not use.

- **The treatment effect lasts longer than Dr. Hanson asserts.** Dr. Hanson cites Wu et al. (2023) for an "only ~7 year" effectiveness window. The 2024 Tamm synthesis found that thinning coupled with prescribed fire "was the only treatment type that maintained a significant reduction in wildfire severity, 49 percent on average, after 10 years" — and a separate replicated experiment (Fire Ecology, 2024) documented strong mitigating effects 20 years after mechanical thinning and 10 years after the second prescribed-fire entry. The Project's phased, ten-year implementation with re-entry is consistent with maintaining effect, not at odds with it.

BRC does not contend the science is unanimous; Dr. Hanson and a small group of co-authors have published contrary findings. But under NEPA the agency is entitled to rely on the prevailing weight of credible scientific evidence, and need only show its conclusion is reasonable and supported. The 62–72% severity-reduction finding from the agency's own research station amply meets that standard. A single dissenting expert does not render the agency's reliance arbitrary.

III. Several of Dr. Hanson's Citations Do Not Support the Proposition for Which They Are Offered

Many of the studies Dr. Hanson marshals concern a different ecological context than the BCC Project:

- **Pacific Northwest old-growth / spotted-owl forests.** The Lesmeister (2019, 2021), Reilly (2022), Meigs (2020), and Evers (2022) studies concern moist, old-growth Pacific Northwest and seasonal-rainforest systems and northern spotted owl habitat — forests with high-biomass, multi-layer canopies and microclimates not representative of a Wasatch mixed aspen/conifer watershed with heavy Balsam Woolly Adelgid mortality. Findings about closed-canopy rainforest microclimate do not transfer to this Project area.
- **Commercial logging, not hand-thinning.** Bradley, Hanson & DellaSala (2016) and the "protected vs. logged" comparisons concern the removal of large, merchantable trees through commercial logging. This Project expressly excludes commercial logging, uses hand crews with chainsaws, retains trees over 16" DBH generally, and removes primarily small-diameter material. The Project does not create the open, large-tree-removed condition those studies critique.
- **Hood et al. (2021), discussed above,** supports the availability of fuel treatment as a management option and is not a no-action authority.

IV. The Hermits Peak / Calf Canyon Comparison Supports Rigorous Burn Discipline, Not Abandonment

Dr. Hanson invokes the 2022 Hermits Peak/Calf Canyon Fire as proof that pile burning and prescribed fire cause catastrophe. The Forest Service's own Declared Wildfire Review tells a

more specific story. The review found the escape resulted from identifiable, correctable failures: the burn plan “**no longer represented the actual fuels in the unit**” because it had aged; “long-term drought and heavy fuel loading outside the prescribed burn unit were not fully considered”; the “test fire location was not representative”; and unexpectedly high winds and low humidity, combined with miscommunication, drove the escape. The Calf Canyon component was a January pile-burn holdover that reemerged months later under red-flag conditions.

That is an argument for current-conditions burn plans, representative test fires, conservative weather windows, and rigorous mop-up and holdover patrol — every one of which is addressable through the agency-approved Burn Plan process the EA already requires. It is not evidence that fuels reduction in a municipal watershed should be abandoned in favor of the no-action alternative, which leaves that same watershed exposed to exactly the high-severity, water-supply-destroying wildfire that Hermits Peak became. Notably, Hermits Peak itself devastated the Gallinas municipal watershed serving Las Vegas, New Mexico — a cautionary tale that cuts in favor of proactive, carefully-managed treatment in Big Cottonwood Canyon, not against it.

BRC recommends the agency add explicit Burn Plan record language committing to: (1) current-year fuels and drought assessment before each ignition; (2) representative test fires; (3) defined conservative weather and fuel-moisture windows; and (4) holdover patrol and mop-up standards for pile burns. These directly answer Dr. Hanson’s strongest practical concern and harden the record.

V. Conclusion

Dr. Hanson’s declaration does not establish that the Draft EA is arbitrary or that an EIS is required. His “characteristic fire” point has partial force only for the minority spruce-fir acreage and is answered by the Project’s WUI and watershed-protection purpose; his treatment-efficacy argument is contrary to the prevailing weight of science, including the Forest Service’s own 2024 synthesis; several of his citations concern other forest types or commercial logging the Project does not employ; and his escaped-burn examples argue for burn discipline the EA already contemplates. BRC urges the agency to (1) proceed with the Proposed Action; (2) clarify the spruce-fir treatment rationale on WUI/watershed grounds; (3) cite the prevailing fuel-treatment-efficacy literature in its response to comments; and (4) add explicit Burn Plan record commitments on current-conditions assessment, test fires, weather windows, and holdover mop-up.

Authorities and sources referenced

- Davis, K.T., et al. (2024). Tamm review: A meta-analysis of thinning, prescribed fire, and wildfire effects on subsequent wildfire severity in conifer-dominated forests of the Western US. Forest Ecology and Management (USFS RMRS / TNC / Univ. of Montana). (62–72% severity reduction; thin+burn most durable; effect ~49% at 10 years.)
- Hood, S.M., Harvey, B.J., et al. (2021). Fire Ecology of Rocky Mountain Forests, Chapter 8 (USDA Forest Service) — includes silvicultural and fuel-treatment options for spruce-fir and aspen.
- Fire Ecology (2024), replicated thin/burn experiment — mitigating effects persisting ~20 years post-thinning / 10 years post-second burn.
- USFS (2022). Gallinas–Las Dispensas Prescribed Fire Declared Wildfire Review (Hermits Peak/Calf Canyon) — aged burn plan, unrepresentative test fire, drought/fuels not fully considered, holdover pile burn.

- BCC Watershed Restoration Draft EA (June 2026), Vegetation Types table; no commercial logging; 16" DBH general retention; hand-crew methods.

PART TWO — PERSUASIVE / NEWSLETTER VERSION

(Burr-Harvilla register — not for the formal record)

The Expert Witness Who Forgot to Read His Own Footnotes

There is a particular genre of expert declaration that arrives in an administrative record the way a process server arrives at a wedding: technically invited, dressed for the occasion, and there to ruin everyone's afternoon. The Alliance for the Wild Rockies has produced a fine specimen. They retained Dr. Chad Hanson — a real ecologist with a real Ph.D. and a genuinely long publication list — to explain that the Big Cottonwood Canyon Watershed Restoration Project is, in so many words, doomed, counterproductive, and possibly an act of arson with a permit.

I want to be fair to Dr. Hanson, because he is not a crank. He is something more interesting: the most cited proponent of a position most fire scientists think is wrong. Think of him as the guy at the poker table who has genuinely read a book about poker. He is not bluffing. He just keeps betting on a hand the rest of the table folded years ago.

EXHIBIT A: THE FOOTNOTE THAT SWITCHED SIDES

Dr. Hanson's headline move is to say the Forest Service doesn't even understand its own forests — that high-severity fire is "characteristic" up there, so the whole premise is "suspect and arbitrary." To prove it, he cites Hood et al. (2021), quoting it for the proposition that subalpine forests burn big and infrequently.

Here is the problem. Hood et al. (2021) is a Forest Service publication. And the very same chapter Dr. Hanson quotes goes on — for every forest type, spruce-fir and aspen included — to lay out "common silvicultural and fuel treatment options for restoration and wildfire mitigation." He cited the setup and skipped the punchline. He brought in a witness, swore it in, and the witness promptly testified for the other side. You almost want to object on his behalf.

EXHIBIT B: ATTACKING A PROJECT THAT DOESN'T EXIST

The bulk of the declaration is a stack of studies proving that "thinning" makes forests hotter, windier, and more flammable — a parade of Pacific Northwest rainforest and spotted-owl old-growth papers, plus the greatest hits of commercial-logging critique. It is a genuinely persuasive case against a project where loggers truck out the big trees and leave a sunbaked clearing behind.

Big Cottonwood is not that project. There is no commercial logging — the EA says so in plain English. Trees over sixteen inches generally stay. The work is hand crews with chainsaws taking out small-diameter material and dead fuel, then burning the surface fuels, with a heavy emphasis on bringing back aspen. Dr. Hanson has written a devastating rebuttal to a clear-cut, then mailed it to a hand-thinning-and-aspen project. It's the right answer to the wrong test question.

And the aspen detail matters, because aspen is the one tree in this canyon that actively wants fire. Telling the Forest Service to leave the aspen alone for its own good is like telling someone to stop watering a plant to keep it healthy. The encroaching conifers are the threat; fire is the cure aspen evolved to need.

EXHIBIT C: THE META-ANALYSIS HE'D RATHER YOU SKIP

In 2024 — after most of Dr. Hanson's cited studies — the Forest Service's own Rocky Mountain Research Station, with The Nature Conservancy and the University of Montana, published the most comprehensive synthesis to date: 40 studies, 11 western states, ponderosa pine up to the subalpine zone. The finding was not subtle. "Overwhelming evidence," they wrote, that thinning-plus-burning cuts subsequent wildfire severity by 62 to 72 percent, across forest types, across a range of fire weather.

Even better for our purposes: the review found thinning *alone* is the weak version — you have to treat the surface fuels too. Which is precisely what Big Cottonwood does and precisely what Dr. Hanson's open-stand horror stories don't. The thing he warns against is the thing the Project declines to do. The thing the Project does is the thing the science endorses.

EXHIBIT D: THE CAUTIONARY TALE THAT CAUTIONS THE OTHER WAY

Finally, the big finish: Hermits Peak. The 2022 New Mexico catastrophe, a prescribed burn that became the largest wildfire in state history. Case closed, surely.

Except the Forest Service investigated itself, in public, and the findings read like a checklist of exactly what not to do: a burn plan so old it no longer matched the fuels on the ground, a test fire lit in an unrepresentative spot, drought conditions outside the unit waved off, winds higher than forecast. That's not an indictment of prescribed fire. That's an indictment of *that* prescribed fire. And here's the part Dr. Hanson doesn't dwell on: Hermits Peak destroyed the Gallinas watershed, the drinking water supply for Las Vegas, New Mexico. The disaster he holds up as a reason not to manage a municipal watershed is, in fact, what happens to a municipal watershed when high-severity fire gets there first. He's handed us our own closing argument.

THE VERDICT

None of this means Dr. Hanson should be ignored. His best point — that pure subalpine spruce-fir naturally burns big — is half right, and the Forest Service should say plainly that it's treating those acres to protect Salt Lake City's water and the town of Brighton, not to relitigate the fire-return interval. Concede the ecology; keep the project. But the larger argument, the one that says put down the chainsaws and let a hundred-year-old fuel bed sit above the drinking water of a million people — that one doesn't survive contact with his own footnotes.