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Comments: 5/8/2023

Dear USFS Helena Lewis and Clark National Forest Administration,

I wish to be able to thank you for thoughtful and responsible consideration of the attached Objections and Comments regarding your Forestwide Prescribed Fire Project #63783

May your very best efforts on behalf of our forest, our communities and the planet be richly blessed.

Sincerely,

Objection to 2023 HLC Forest Scope of Prescribed Burning and Other Fuel Treatments as they are Currently Proposed (Submitted 5/8/2023). I appreciate the tremendous and accelerating burden we have witnessed, especially since the year 2000, for devastating wildfires and their potential for catastrophic harms throughout the West, including to our local communities within your jurisdiction. In response to this extreme threat during megadroughts, I certainly applaud your goal to plan ahead, guard against & minimize excessive devastation. I am grateful for your intent to mobilize for better safety for us all -- the humans, the wildlife, and the wonderfully complex, intelligent entity that comprises a whole and healthy forest. However, I am very concerned that what we have seen, especially in California, New Mexico, and Oregon has resulted in a trauma-driven response at an administrative level. My objections are based on the significant issues driving the concerns described below. When thinking and planning is inflamed by such understandably powerful traumas from these extreme events is amplified to an organizational level and then recycled through flashbacks (such as by the photos, videos or memories highlighted in the USFS briefing you referenced for this proposal) the consequences misdirect fear and foreshorten focus. They fixate and entrap planning into a limited set of options. Unfortunately, these are not necessarily the best options for adapting to rapid shifting and complex realities in order to truly work with nature. Potentials for harm in the proposed 2023 plan that work AGAINST nature risk being magnified, if better options are not addressed. I am particularly concerned about how collective chronic traumas of this magnitude could collapse understandings, communications, and goals within the USFS overall plan. For example, a fire-centric focus narrows our strategies toward "fighting fire with fire", albeit with higher tech tools, rather than activating effective utilization of broader spectrum options to partner more optimally with nature. The USFS and the HLC 2023 plans predispose looking at our forests first through a lens that counts timber/fuel types or quantities in order to make predictions and treatment targets. Rather, the Forest Service ought to emphasize forest-sustaining alternatives, tailored especially toward maintaining best water and soil. It is difficult to find in

either the USFS national or HLC Forest stated goals the necessary orientation toward best practices in three significant areas: maintaining water vapor in the forest, maintaining ambient humidity as much as possible in surrounding communities, and preserving surface and deep soil moisture. Equally important, these practices need to target preventing added fire from contributing to excessive snow melt, wind erosion, and surface run-off losses or flooding. Several crucial and immediately practical issues remain unaddressed in the 2023 plan (Please also see Attachment #1). How will you disclose sufficient and accurate data so that citizens and local businesses may observe and monitor how their lives, their work, their communities, and the forests are affected by your planned treatments? So far it is unclear what data are being audited in a public, professional, and scientific manner for the HLC region regarding each planned fire site. It is also unclear how evidence-based professional input was utilized to guide the 2023 plan by other essential disciplines: these include biologists, botanists, mycologists, and atmospheric scientists who understand the role of forests in producing snowfall, the biology of rainfall, and maximizing hyperlocal water preservation into the warmer months. We have a knowledgeable resource in biomimicry; how are these specialists consulted? Persons who are trained in identifying how to assist the forest in its OWN SELF-REGULATION of fire, water, soil and air, so as to regenerate an ancient forest are perhaps our most important resource. The HLC 2023 fire-fighting-fire approach as presented to "restore" fire to landscapes that have been "fire deprived" by overly successful fire suppression does so in quite UNNATURAL ways with substantial cost and disturbance to rooted and burrowed spaces, to the mycorrhizal and mycelium networks. Acres sacrificed to these fuel treatments will need to be retreated frequently, exacerbating the damage. Has the HLC USFS plan made public data that reveals to what extent, by dint of potentially chemical and other "amendments", these same acres may become more susceptible? Harmful effects include invasive and/or highly flammable species, damaging pests, scrub, and overpopulation by small diameter trees with thin bark reserves. This post-fire status, lasting for many years, may at times create profound risk for extremely rapid fire spread not typically seen in more mature forest zones (backed by forest ecologist Chad Hansen, Dominik DelaSalla). Furthermore, neighboring mature forests become drier and more vulnerable due to some planned treatments, then are doubly threatened if such grass/scrub fires reach them. Potential counterproductive effects and their full costs contrast unfavorably to alternative plans better oriented toward water and soil preservation. Families, taxpayers, and budgets risk struggling with burdensome, even unfeasible, fire-centric strategies both in the immediate and in the future. The plans from 2023 forward need to address high quality, NON-FIRE alternatives, ones that prioritize optimal forest SELF-regeneration and our warming climate. This is why traditional USFS management strategies emphasizing added fire have become obsolete.

#### ATTACHMENT #1:

#### Additional Immediately Practical Concerns for the HLC 2023 Proposed Prescribed Burning

##### 1. ACCOUNTABILITY

How does the HLC-USFS 2023 plan to disclose detailed, validated MEANINGFUL QUALITY PERFORMANCE MEASURES including maximization of surface cooling, optimization of moisture preservation, and maintenance of the integrity, quality, and necessary depth of soil; the aforementioned are in tandem with underground water reserves.

How is soil nitrogen loss from planned fires minimized? How does carbon remain sequestered? Carbon currently sequestered in trees and native vegetation, plus carbon below soil level, will be disrupted by these intentional fires - how will this unfavorable carbon displacement that accelerates climate change be tracked, disclosed to the public, and mitigated? These forest resources needed all of us (humans, wildlife, the entire forest ecosystem) ought to remain for the most part in their rightful places (not washed away in flooding, or lost to wind and soil erosion, or pumped into the atmosphere in smoke.) During episodic droughts, and the unprecedented current weather chaos, our trees and forests should not be managed as though they are worth more dead than alive.

## 2. WATER SYSTEMS

What is the USFS' demonstrable commitment to avoiding interference with natural precipitation, or other natural and safe routes for DELIVERY OF WATER directly to soil and vegetation in our forests? How do these plans avoid unnecessary depletion and evaporation of EXISTING WATER resources, ones that otherwise would be preserved in the ground and recycled throughout the forests?

## 3. NATURAL FOREST INFRASTRUCTURE

How will preservation and restoration of the complex ground level and sub-ground structural integrity of the forest be accomplished for optimal forest health and better climate conditions? Why does the 2023 plan allow taking the forest floor down to the mineral level?

## 4. HEALTH IMPACTS

Crucial health impacts, short-and long-term, from particulate matter and other volatile substances in smoke are not sufficiently weighted. Consequences may last hours, days, years. What coordination and preparation is in place between the USFS & its HLC Forest division with our local communities to provide timely medical diagnostics, treatments, and sufficient cost remediation when intentionally set fires result in otherwise unnecessary expenditures to families, to employers and their health plans, to hospitals and other providers? Is the community to "absorb" this unreimbursed care, and likewise our tax-funded health plans (Medicare, Medicaid)? As a physician, I am alerting you that the health impacts include but are not limited to asthma and COPD medications, prolonged recoveries from COVID19 and other pneumonias, worsened cardiovascular injuries, not to exclude heightened cancer risks. Harms from particulate matter and other smoke contents may be GREATER from intentionally added fires than from intermittent natural wildfire. These substances from "prescribed fire" can be absorbed through our lungs into the bloodstream, and there create unnecessary inflammatory reactions -- affecting the kidneys and other organs. Smoke particulates were shown to reach

unborn fetuses. In my view, adding intentional fire as proposed in the 2023 plan, including doing so out of its natural season, would reasonably be expected to interfere with recovery of human and animal health by prolonging smoke exposures.

What commitment will you make that no additional health burdens will result from your 2023 fuel and forest treatment plans? Alternatives that minimize fire hazards to health, and instead emphasize strategies to maximize healthy water and soil reserves, seem clearly preferred in the midst of our climate crisis. Potential burdens from human-added fires to our citizens, workers, employers, the elderly, and to school children cannot be handled solely by recommending that so-called "sensitive people" stay inside - for a number of important reasons. Several of these health risks can occur to healthy people, too. Risk is not as simple as whether people feel bothered by seeing or smelling smoke. It is a question of whether particulate matter and volatile chemicals are inhaled from that smoke, whether the individual senses it or not.

## 5. THE AFTERMATH

What measurements will be done -- before, during and after proposed fires with sufficient quality & quantity of data resolution for the entire zones potentially affected by these treatments? Will these be DISCLOSED in a timely manner to the public? How will citizens be able to readily ascertain that the USFS is diligent and held responsible for consequences from all their intentional treatments, not just counting of the number of acres treated? To whom is the USFS accountable? Does the US Department of Agriculture make economic gains its own priority? Is this in balance with the health of our citizens and our ecosystems? If so, then one assumes that the USFS must track, publicly acknowledge and respond when proposed understory burns near cities are overly aggressive and reach the crowns of multiple trees (as noted by citizens in 2022 in the days after their intentional fires within the Rodney Ridge forest lands very near downtown HELENA; these questionable quality events, in part, perhaps occurred because of high winds that the same evening and the day following the USFS-executed burn). Renewal of trust in the USFS must be EARNED -- after catastrophic errors in New Mexico in 2022, and previous significantly dangerous errors made by the USFS locally near Helena a few years ago -- by forthright incident assessments, reporting and clear acknowledgements to the public, followed by clear achievable corrective and preventive plans.

## 6. COMPENSATION

How will the HLC-USFS immediately intervene to stop any of their fire-related harms to human health & provide necessary financial compensations -- NOT just for real estate, cultural, business and property "assets" as they sometimes do now, but ESPECIALLY for health-related damage? For example, compensations would need to include, but are not necessarily limited to, costs for sufficient air filtration in homes and businesses, extra physician/clinic/ER or hospital visits, extra costs for respiratory medications in an adequately TIMELY manner to

protect health. How has the HLC-USFS prepared for these consequences? How have they budgeted and prepared to compensate for citizens' time off work, out of school, and time unnecessarily confined inside their homes? It is understood that UNAVOIDABLE NATURAL wildfire may at times overwhelm the very best capacity of fire fighters from multiple agencies to minimize harm to citizens, but initiating intentional fire places these responsibilities on the USFS, including its HLC division.

## 7. ACCESSIBILITY

Fire can and does move rapidly in dry, hot conditions whether initiated by lightning or by human intention. For the full duration that any intentionally added fire, or satellite seeding from it, is still alive (including embers), what are the phone numbers that will be answered 24/7 by responsible staff from the HLC Forest Service to address citizen concerns and/or incurred consequences? Calling 911 is only relevant to some, but not all, of the potential issues that could require timely USFS involvement, rather than deferment to convenient and traditional office hours.