Objection against the Hungry Creek Vegetation Improvement Project

To: Objection Reviewing Officer
USDA Forest Service
Intermountain Region
324 25th Street
Ogden, Utah 84401

Thank you for this opportunity to object to the Hungry Creek Vegetation Improvement Project. Please accept this objection in pdf format from me on behalf of the Alliance for the Wild Rockies, Native Ecosystem Council, Yellowstone to Uintas Connection, and Wildlands Defense.

1. Objector's Name and Address:

Lead Objector Michael Garrity, Director, Alliance for the Wild Rockies (Alliance), PO Box 505, Helena, MT 59624; phone 406-459-5936

And for

Sara Johnson, Director, Native Ecosystems Council (NEC)
PO Box 125
Willow Creek, MT 59760;

And for

Jason L. Christensen – Director Yellowstone to Uintas Connection
PO Box 363
Paris, ID 83261
jason@yellowstoneuintas.org
435-881-6917

And for

Steve Kelly
Council on Wildlife and Fish
P.O. Box 4641

Bozeman, MT 59772

Signed this 28th day of June, 2024 for Objectors

/s/
Michael Garrity
Lead Objector

/s/ Michael Garrity

Description of those aspects of the proposed project addressed by the objection, including specific issues related to the proposed project if applicable, how the objector believes the environmental analysis, Finding of No Significant Impact, and Draft Decision Notice (DDN) specifically violates law, regulation, or policy: The EA and Draft Decision Notice are contained in the USFS webpage at: https://usfs-public.app.box.com/v/PinyonPublic/file/1268354387492

2. Name of the Proposed Project

Hungry Creek Vegetation Improvement Project

3. Location of Project, Name and Title of Responsible Official

The project is northwest of Escalante, Utah in the Escalante Ranger District of the Dixie National Forest in Garfield County, Utah.

Kevin Wright, Forest Supervisor
Dixie National Forest is the Responsible Official.

820 N Main St.
Cedar City, UT 84721-7769

As a result of the Draft DN, individuals and members of the above mentioned groups, hereafter (Alliance) would be directly and significantly affected by the logging and associated activities. Appellants are conservation organizations working to ensure protection of biological diversity and ecosystem integrity in the Wild Rockies bioregion including the Dixie National Forest (DNF). The individuals and members use the project area for recreation and other forest related activities. The selected alternative would also further degrade the water quality, wildlife and fish habitat. These activities, if implemented, would adversely impact and irreparably harm the natural qualities of the Project Area, the surrounding area, and would further degrade the watersheds and wildlife habitat.

The Forest Service proposes the following actions to meet the purpose and need. The project area is approximately 103,000 acres of which 47,570 acres are proposed for vegetation treatments and 45,920 acres are proposed for prescribed fire treatment. Note that vegetation treatments and prescribed fire may occur on the same acreage. Approximately 28,290 additional acres would be a maximum management area. Maximum Manageable Areas would not be actively ignited through prescribed fire and don’t include vegetation treatments but should fire carry into them as a result of the surrounding prescribed fire, they would be managed for fuels reduction.

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Propsed Activity	**Proposed Activity/Treatment Acres**		
Treatment Type	**Inside IRA**	**Outside IRA**	**Total**
Vegetation	24,355	23,215	47,570
Fuels	23,786	22,134	45,920
MMA	12,107	16,183	28,290

4. Connection between previous comments and those raised in the Objection:

Alliance provided comments on the proposed project on November 17, 2021 and on August 28, 2023.

Alliance has also included a general narrative discussion on possible impacts of the Project, with accompanying citations to the relevant scientific literature.

5. Specific Issues Related to the Proposed Projects, including how Objectors believes the Environmental Analysis or Draft Record of Decision specifically violates

Law, Regulation, or Policy: We included this under number 8 below.

6. Suggested Remedies that would Resolve the Objection:

We recommend that the “No Action Alternative” be selected. We have also made specific recommendations after each problem.

7. Supporting Reasons for the Reviewing Office to Consider:

This landscape has very high wildlife values, including for the threatened and wildlife dependent upon unlogged. The project area will be concentrated within some of the best wildlife habitat in this landscape which is an important travel corridor for wildlife such as Mexican Spotted Owl, Northern Goshawk, Monarch Butterfly and California Condors. The public interest is not being served by this project.

Suggested Remedies to Resolve the Objection:

We recommend that the “No Action Alternative” be selected. We have also made specific recommendations

after each problem.

Thank you for the opportunity to object.

NOTICE IS HEREBY GIVEN that, pursuant to 36 CFR Part 218, Alliance objects to the Draft Decision Notice (DDN) and Finding of No Significant Impact (FONSI) with the legal notice published on May 16, 2024, including the Responsible Official's adoption of proposed or selected Alternative.

Alliance is objecting to this project on the grounds that implementation of the Selected Alternative is not in accordance with the laws governing management of the national forests such as the ESA, NEPA, NFMA, the Dixie National Forest Forest Plan and the APA, including the implementing regulations of these and other laws, and will

result in additional degradation in already degraded watersheds and mountain slopes, further upsetting the wildlife habitat, ecosystem and human communities. Our objections are detailed below.

If the project is approved as proposed, individuals and members of the above-mentioned groups would be directly and significantly affected by the burning and associated activities. Objectors are conservation organizations working to ensure protection of biological diversity and ecosystem integrity in the Wild Rockies bioregion (including the DNF). The individuals and members use the project area for recreation and other forest related activities. The selected alternative would also further degrade the water quality, wildlife and fish habitat. These activities, if implemented, would adversely impact and irreparably harm the natural qualities of the Project Area, the surrounding area, and would further degrade the watersheds and wildlife habitat.

Statements that Demonstrates Connection between Prior Specific Written Comments on the Particular Proposed Project and the Content of the Objection

We wrote in our comments:

We wrote in our August 28, 2023 comments:

We still believe because of the size of the project and the cumulative effects of past current and future logging by the Forest Service and private logging in the area the Forest Service must complete a full environmental impact statement (EIS) for this Project. The scope of the Project will likely have a significant individual and cumulative impact on the environment. Alliance has reviewed the statutory and regulatory requirements governing National Forest Management projects, as well as the relevant case

law, and compiled a checklist of issues that must be included in the EIS for he Project in order for the Forest Service's analysis to comply with the law. Following the list of necessary elements, Alliance has also included a general narrative discussion on possible impacts of the Project, with accompanying citations to the relevant scientific literature. These references should be disclosed and discussed in the EIS for the Project.

I. NECESSARY ELEMENTS FOR

PROJECT EIS or even for an EA if you refuse to write an EIS:

A. Disclose all Dixie National Forest Plan requirements for logging/burning projects and explain how the Project complies with them;

B. Will this project comply with forest plan big game hiding cover standards and the eastside assessment?

C. Disclose the acreages of past, current, and reasonably foreseeable logging, grazing, mining, and road building activities within the Project area;

D. Solicit and disclose comments from the Montana Department of Fish, Wildlife, and Parks regarding the impact of the Project on wildlife habitat;

E. Solicit and disclose comments from the Montana Department of Environmental Qual- ity regarding the impact of the Project on water quality;

F. Disclose the biological assessment for the candidate, threatened, or endangered species with potential and/or actual habitat in the Project area;

G. Disclose the biological evaluation for the sensitive and management indicator species with potential and/or actual habitat in the Project area;

H. Disclose the snag densities in the Project area, and the method used to determine those densities;

I. Disclose the current, during-project, and post-project road densities in the Project area;

J. Disclose the Dixie National Forest's record of compliance with state best management practices regarding stream sedimentation from ground-disturbing management activities;

K. Disclose the Dixie National Forest's record of compliance with its monitoring requirements as set forth in its Forest Plan;

L. Disclose the Dixie National Forest's record of compliance with the additional monitoring requirements set forth in previous DN/FONSIs and RODs on the Dixie National Forest;

M. Disclose the results of the field surveys for threatened, endangered, sensitive, and rare plants in each of the proposed units;

N. Please formally consult with the US FWS on the impacts of this project on candidate, threatened, or endangered species and plants;

O. Please consult with the US FWS on the impacts of this project on lynx critical habitat and potential lynx critical habitat;

P. Will this Project exacerbate existing noxious weed infestations and start new infestations?

Q. Do unlogged old growth forest store more carbon than the wood products that would be removed from the same forest in a logging operation?

R. What is the cumulative effect of National Forest logging on U.S. carbon stores? How many acres of

National Forest lands are logged every year? How much carbon is lost by that logging?

S. Is this Project consistent with "research recommendations (Krankina and Harmon 2006) for protecting carbon gains against the potential impacts of future climate change? That study recommends "[i]ncreasing or maintaining the forest area by avoiding deforestation," and states that "protecting forest from logging or clearing offer immediate benefits via prevented emissions." That study also states that "[w]hen the initial condition of land is a productive old-growth forest, the conversion to forest plantations with a short harvest rotation can have the opposite effect lasting for many decades . . . ." The study does state that thinning may have a beneficial effect to stabilize the forest and avoid stand- replacing wildfire, but the study never defines thinning. In this Project, where much of the logging is

clear-cutting and includes removing large trees without any diameter limit, and where the removal of small diameter surface and ladder fuels is an unfunded mandate to the tune of over $3 million dollars, it is dubious whether the prescriptions are the same type of "thinning" envisioned in Krankina and Harmon (2006).

T. Please list each visual quality standard that applies to each unit and disclose whether each unit meets its respective visual quality standard. A failure to comply with visual quality Forest Plan standards violates NFMA.

U. For the visual quality standard analysis please define "ground vegetation," i.e. what age are the trees, "reestablishes," "short term," "longer term," and "revegetate."

V. Please disclose whether you have conducted surveys in the Project area for this Project for bald eagles, peregrine

falcons, Utah prairie dogs , Astragalus perianus, Bonneville cutthroat trout (S), Colorado River cutthroat trout, and California condors. as required by the Forest Plan.

W. Please disclose how often the Project area has been surveyed for bald eagles, peregrine falcons, Utah prairie dogs , Astragalus perianus, Bonneville cutthroat trout (S), Colorado River cutthroat trout, and California condors.

X. Is it impossible for a bald eagles, peregrine falcons, Utah prairie dogs , Astragalus perianus, Bonneville cutthroat trout (S), Colorado River cutthroat trout, and California condors to inhabit the Project area?

Y. Would the habitat be better for bald eagles, peregrine falcons, Utah prairie dogs , Astragalus perianus, Bonneville cutthroat trout (S), Colorado River cutthroat

trout, monarch butterflies, and California condors. if roads were removed in the Project area?

Z. What is the U.S. FWS position on the impacts of this Project on pine martins, monarch butterflyies, bald eagles, peregrine falcons, Utah prairie dogs , Astragalus perianus, Bonneville cutthroat trout (S), Colorado River cutthroat trout, and California condors?

Have you conducted ESA consultation on the effect of the project on monarch butterflyies, bald eagles, peregrine falcons, Utah prairie dogs , Astragalus perianus, Bonneville cutthroat trout (S), Colorado River cutthroat trout, and California condors?

AA. Please provide us with the full BA for the monarch butterflyies, bald eagles, peregrine falcons, Utah prairie

dogs , Astragalus perianus, Bonneville cutthroat trout (S), Colorado River cutthroat trout, and California condors.

BB. What is wrong with uniform forest conditions?

CC. Has the beetle kill contributed to a diverse landscape?

DD. Why are you trying to exclude stand replacement fires when these fires help aspen and whitebark pine?

EE. Please disclose what is the best available science for restoration of sagebrush habitat.

FF. Disclose the level of current noxious weed infestations in the Project area and the cause of those infestations;

GG. Disclose the impact of the Project on noxious weed infestations and native plant communities;

HH. Disclose the amount of detrimental soil disturbance that currently exists in each proposed unit from previous logging and grazing activities;

II. Disclose the expected amount of detrimental soil disturbance in each unit after ground disturbance and prior to any proposed mitigation/remediation;

JJ. Disclose the expected amount of detrimental soil disturbance in each unit after proposed mitigation/ remediation;

KK. Disclose the analytical data that supports proposed soil mitigation/ remediation measures;

LL. Disclose the timeline for implementation;

MM. Disclose the funding source for non- commercial activities proposed;

NN. Disclose the current level of old growth forest in each third order drainage in the Project area;

OO. Disclose the method used to quantify old growth forest acreages and its rate of error based upon field review of its predictions;

PP. Disclose the historic levels of mature and old growth forest in the Project area;

QQ. Disclose the level of mature and old growth forest necessary to sustain viable populations of dependent wildlife species in the area;

RR. Disclose the amount of mature and old growth forest that will remain after implementation;

SS. Disclose the amount of current habitat for old growth and mature forest dependent species in the Project area;

TT. Disclose the amount of habitat for old growth and mature forest dependent species that will remain after Project implementation;

UU. Disclose the method used to model old growth and mature forest dependent wildlife habitat acreages and its rate of error based upon field review of its predictions;

VV. Disclose the amount of big game (moose and elk) hiding cover, winter range, and security currently available in the area;

WW. Disclose the amount of big game (moose and elk) hiding cover, winter range, and security during Project implementation;

XX. Disclose the amount of big game (moose and elk) hiding cover, winter range, and security after implementation;

YY. Disclose the method used to determine big game hiding cover, winter range, and security, and its rate of error as determined by field review;

ZZ. Disclose and address the concerns expressed by the ID Team in the draft Five-Year Review of the Forest Plan regarding the failure to monitor population trends of MIS, the inadequacy of the Forest Plan old growth

standard, and the failure to compile data to establish a reliable inventory of sensitive species on the Forest;

AAA. Disclose the actions being taken to reduce fuels on private lands adjacent to the Project area and how those activities/or lack thereof will impact the efficacy of the activities proposed for this Project;

BBB. Disclose the efficacy of the proposed activities at reducing wildfire risk and severity in the Project area in the future, including a two-year, five-year, ten-year, and 20-year projection;

CCC. Disclose when and how the Dixie National Forest made the decision to suppress natural wildfire in the Project area and replace natural fire with logging and prescribed burning;

DDD. Disclose the cumulative impacts on the Forest-wide level of the Dixie National Forest's policy decision to replace natural fire with logging and prescribed burning;

EEE. Disclose how Project complies with the Roadless Rule;

FFF. Disclose the impact of climate change on the efficacy of the proposed treatments;

GGG. Disclose the impact of the proposed project on the carbon storage potential of the area;

HHH. Disclose the baseline condition, and expected sedimentation during and after activities, for all streams in the area;

III. Disclose maps of the area that show the following elements:

1. Past, current, and reasonably foreseeable logging units in the Project area;

2. Past, current, and reasonably foreseeable grazing allotments in the Project area;

3. Density of human residences within 1.5 miles from the Project unit boundaries;

4. Hiding cover in the Project area according to the Forest Plan definition;

5. Old growth forest in the Project area; 6. Big game security areas;

7. Moose winter range;

The Forest Service responded:

Plan allows for mechanical aspen treatments up to 40 acres to achieve purpose and need; General statement, not considered further; Agency Roadless Rules allows treatments within IRA's following certain exceptions; LTPBR has been considered, ananlysis supports use but not primary tool for restoration; Already included in the proposed action/PDFs; The purpose of an EA is to support the determination of whether to prepare an EIS or issue a FONSI. See the FONSI for further detail on why an EIS was not warranted for this project; the Utah

National Forests Fire Amendment is located here: https://www.fs.usda.gov/detail/dixie/landmanagement/planning/?cid=stelprdb5260226. Individual burn plans are not NEPA documents, but must follow the NEPA Decision. These are developed prior to implementation; Implementation plans are designed post decision; The proposed action is site specific in that it is proposing activities that are "located in a defined geographic area" and is not a broad-level or planning analysis that would be considered programmatic under CEQ regulations. Effects analyses were reviewed and updated to ensure they addressed the magnitide, direction, extent, and duration of effects to the specific watersheds, grazing allotments, IRAs, and fish and wildlife populations affected by the proposed actions. The implementation checklist provides an implementation framework, prompting coordination, notification and application of specific Project Design Features where appropriate; 40 CFR 1501.5 ") An environmental assessment shall: (1) Briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact; and (2) Briefly discuss the purpose and need for the proposed action, alternatives as required by section 102(2)(E) of NEPA, and the environmental impacts of the proposed action and alternatives, and include a listing of agencies and persons consulted." Specialist Reports and other supporting documents in the project record are incorporated by reference; The PDFs and Implementation Checklist are part of the project and

incorporated into the proposed action as appropriate; Project implementation schedule would be influenced by funding, staffing and partnerships; Specialist reports are available to the public, through the Forest Service Project webpage, Pinyon Public; The forest has used the best available science in disclosure of the impacts to the public. The Forest project will be reviewed periodically for changed conditions and new information in compliance with 40 CFR 1502.9 and FSH 1909.15; The project is expected to be implemented in 10-20 years as funding and other factors allow; The EA includes a section "Alternatives to the Proposed Action" as well as "Alternatives removed from Detailed Analysis";

The Hungry Creek project is in violation of NEPA, NFMA, the ESA, the Migratory Bird Treaty Act and the APA. The EA failed to complete “hard look” and “cumulative effects” analysis and provide effective alternatives.

The Forest Service is violating NEPA by not telling the public where, when and what they will do and the effect of the project in violation of NEPA, NFMA and the APA. The Forest Service often refers to this new attempt to violate NEPA, “conditions based management.”

Another reason that an EIS is need is to analyze the cumulative impacts is that the Hungry Creek burning, manipulation and logging project represent a foreseeable large-scale loss and fragmentation of habitat for many sensitive species, declining migratory birds, native carnivores and other wildlife.

The Prescribed Fires turned wildfires in New Mexico - one of which was a pile burn that smoldered and then blew up - have highlighted serious risks with activities involved in this project. (I assume they will be pile burring in some of these aspen 'treatments"? An EIS is needed to analyze the threat of the prescribed fires getting out of control.

https://www.krqe.com/news/wildfires/officials-calf-canyon-fire-caused-by-pile-burn/

Please find attached, the Rosenberg paper on migratory bird declines which concluded, ***Our results signal an urgent need to address the ongoing threats of habitat loss, agricultural intensification, coastal disturbance, and direct anthropogenic mortality, all exacerbated by climate change, to avert continued biodiversity loss and potential collapse of the continental avifauna.***

The Hungry Creek project needs to comply with the Migratory Bird Treaty Act and analyze the effect of the project on birds.

The EA provides little additional information on where burnings, logging will be or how the specifics on how the burning will occur. The EA is programmatic in that they want to log whenever and wherever for the next 20 years with no public over site of their activities. The EA does not

take a hard look at the potential impacts of the project. This is a violation of NEPA, NFMA, the APA, and the ESA.

Please see the article below for a ruling on a similar error by the Forest Service.

Federal court blocks timber sale in Alaska's Tongass National Forest

https://www.adn.com/alaska-news/2020/06/25/federal-court-blocks-timber-sale-in-alaskas-tongass-national-forest/

JUNEAU — A federal judge has blocked what would have been the largest timber sale in Alaska's Tongass National Forest in decades.

Wednesday's ruling ends the U.S. Forest Service's plan to open 37.5 square miles of old-growth forest on Prince of Wales Island to commercial logging, CoastAlaska reported.

The ruling by Judge Sharon L. Gleason also stops road construction for the planned 15-year project.

Conservationists had already successfully blocked the federal government's attempt to clear large amounts of timber for sale without identifying specific areas where logging would have occurred.

Gleason allowed the forest service to argue in favor of correcting deficiencies in its review and moving forward

without throwing out the entire project, but ultimately ruled against the agency.

Gleason's ruling said the economic harm of invalidating the timber sales did not outweigh "the seriousness of the errors" in the agency's handling of the project.

The method used in the Prince of Wales Landscape Level Analysis was the first time the agency used it for environmental review on an Alaska timber sale.

The forest service, which can appeal the decision, did not return calls seeking comment.

Gleason's decision affects the Prince of Wales Island project and the Central Tongass Project near Petersburg and Wrangell.

The ruling triggers a new environmental review under the National Environmental Policy Act, said Meredith Trainor, executive director of the Southeast Alaska Conservation Council.

The ruling in the lawsuit brought by the council includes a requirement for public input on specific areas proposed for logging, Trainor said.

Tessa Axelson, executive director of the Alaska Forest Association, said in a statement that the ruling "threatens the viability of Southeast Alaska's timber industry."

Please see the following article by the American Bar Association about the use of Condition-Based Management.

May 10, 2021

The U.S. Forest Service's Expanding Use of Condition-Based Management: Functional and Legal Problems from Short-Circuiting the Project-Planning and Environmental Impact Statement Process

Andrew Cliburn, Paul Quackenbush, Madison Prokott, Jim Murphy, and Mason Overstreet

https://www.americanbar.org/groups/environment_energy_resources/publications/fr/20210510-the-us-forest-services-expanding-use-of-condition-based-management/

Condition-based management (CBM) is a management approach that the U.S. Forest Service has increasingly used to authorize timber harvests purportedly to increase flexibility, discretion, and efficiency in project planning, analysis, and implementation. The agency believes it needs this flexible approach because sometimes conditions on the ground can change more quickly than decisions can be implemented. In practice, however, CBM operates to circumvent the National Environmental Policy Act (NEPA) review framework by postponing site-specific analysis until the Forest Service implements the

project, which effectively excludes the public from site-specific decisions, reduces transparency, and removes incentives for the agency to avoid harming localized resources. The practice should be curtailed by the Biden administration

NEPA requires federal agencies including the Forest Service to provide the public with "notice and an opportunity to be heard" in the analysis of "specific area[s] in which logging will take place and the harvesting methods to be used." Ohio Forestry Ass'n v. Sierra Club, 523 U.S. 726, 729–30 (1998). Site-specific public involvement can significantly improve projects because the agency may be unaware of harmful impacts or resource concerns until the public flags them during the environmental analysis process. Nationally, the Forest Service drops about one out of every five acres it proposes for timber harvest based on information or concerns presented during the NEPA process, often due to public comments regarding site-specific information. Public Lands Advocacy Coalition, Comments on Proposed Rule, National Environmental Policy Act (NEPA) Compliance (June 13, 2019) (analyzing 68 projects that relied on environmental assessments).

The Forest Service appears to be abandoning the site-specific analysis model in favor of CBM. CBM projects use an overarching set of "goal variables"—predetermined management criteria that guide implementation—that Forest Service staff apply to on-

the-ground natural resource "conditions" encountered during the course of project implementation, a period that can span years or even decades: essentially, when the Forest Service finds X resource condition on the ground, it applies Y timber harvest prescription. However, basic information regarding the project's details—such as unit location, timing, roadbuilding, harvesting methods, and site-specific environmental effects—is not provided at the time the Forest Service conducts its NEPA environmental review (when the public can weigh in), nor when it gives its final approval to a project (when the public can seek administrative review). Instead, site-level disclosures are made after NEPA environmental and administrative review is complete, depriving the public of opportunities to comment and influence the decision based on localized conditions.

While CBM is not a new management tool, the Forest Service has employed it for over a decade and it was used sparingly during the Obama administration. However, its use accelerated during the Trump administration and shows no sign of slowing. To date, dozens of Forest Service projects across the country have used CBM. See, e.g., Red Pine Thinning Project, Ottawa National Forest; Medicine Bow Landscape Vegetation Analysis, Medicine Bow-Routt National Forest; Sage Hen Integrated Restoration Project, Boise National Forest.

As the Forest Service's use of CBM continues, questions remain about its legality. Public-lands advocates argue that CBM violates NEPA's mandate that agencies take a

hard look at the consequences of their actions before a project commences. This "look before you leap" approach was the primary purpose of NEPA and remains the statute's greatest strength. NEPA works by requiring an agency to consider alternatives and publicly vet its analysis whenever its proposal may have "significant" environmental consequences, 42 U.S.C. § 4332(2)(C), or implicates "unresolved conflicts" about how the agency should best accomplish its objective. Id. at § 4332(2)(E). However, CBM allows the Forest Service to circumvent the effects analysis process when exercising discretion about where and how to log decisions that often may have "significant" environmental consequences.

Only two federal cases have addressed CBM's legality. In WildEarth Guardians v. Connor, 920 F.3d 1245 (10th Cir. 2019), the Tenth Circuit approved a CBM approach for a logging project in southern Colorado in Canada lynx habitat. The environmental assessment utilized CBM and analyzed three different alternatives, one of which was a worst-case scenario. For the worst-case scenario, the Forest Service assumed that the entire lynx habitat in the project area would be clear-cut. The Forest Service "took the conservative approach" because it "did not know precisely" where it would log in the lynx habitat areas. WildEarth Guardians, 920 F.3d at 1255. Based on this conservative approach, coupled with a comprehensive, region-wide lynx management agreement and its associated environmental impact statement, the court agreed with the Forest Service that its future site-specific choices were "not material" to the effects on lynx—i.e.,

that no matter where logging occurred, "there would not be a negative effect on the lynx." Id. at 1258–59.

However, a second case addressing CBM found that site-specific analysis was needed to satisfy NEPA's "hard-look" standard. In Southeast Alaska Conservation Council v. U.S. Forest Service, 443 F. Supp. 3d 995 (D. Ak. 2020), the court held that the Forest Service's Prince of Wales Landscape Level Analysis Project—a 15-year logging project on Prince of Wales Island in the Tongass National Forest—violated NEPA. The project would have authorized the logging of more than 40,000 acres, including nearly 24,000 acres of old growth, along with 643 miles of new and temporary road construction, but it "d[id] not include a determination—or even an estimate —of when and where the harvest activities or road construction . . . w[ould] actually occur." Id. at 1009. The court found that this analysis was not "specific enough" without information about harvest locations, methods, and localized impacts. Id. at 1009–10. The court further held that a worst-case analysis could not save the project, because site-specific differences were consequential. Id. at 1013.

The Forest Service's widespread use of CBM also creates compliance challenges under the Endangered Species Act (ESA). Section 7(a)(2) of the ESA requires federal agencies to consult with the Fish and Wildlife Service and/or National Marine Fisheries Service whenever a proposed action "may affect" listed species or destroy or adversely modify its critical habitat to ensure that the

action is "not likely to jeopardize" these species. 16 U.S.C. § 1536. CBM conflicts with that statutory requirement because it does not allow agencies to properly determine whether an action "may affect" or is "likely to jeopardize" a listed species when the consulting agencies do not know the specifics of when or where the action will be implemented, or what the site-specific impacts of the action may be.

For some projects, the Forest Service has tried to avoid this tension by conducting section 7 consultation prior to each phase of a CBM project, but this approach has run headlong into the general rule against segmenting project consultation duties under the ESA. See, e.g., Conner v. Burford, 848 F.2d 1441, 1457 (9th Cir. 1988). With few exceptions, section 7 consultation must cover the overall effects of the entire project at the initial stage before the project can commence. Thus, regardless of whether agencies choose to consult up front or to consult in stages, the Forest Service is likely to face significant legal hurdles when its CBM project "may affect" listed species.

CBM is not only legally dubious, but also unnecessary. The Forest Service already has NEPA-compliant methods to deal with situations that require a nimble response to the needs of a dynamic landscape. In these cases, the Forest Service can complete a single "programmatic" analysis to which future site-specific decisions will be tiered. This programmatic approach allows the Forest Service to speed the consideration and implementation of site-specific, step-down proposals. Unlike CBM, this

approach allows for public review of site-specific decision-making and administrative review of those decisions.

Surveying the regulatory horizon, the future of CBM in the Forest Service system is uncertain. The national forests face a host of complex challenges including climate-related crises, insect and forest pestilence, protecting and restoring biodiversity, and wildfire management. These challenges are made worse by budget and staff restrictions. Without adequate funding, the Forest Service must rely on imperfect tools like commercial logging, which can cause more harm than good in the wrong places.

But this is not the time to shortchange the most consequential decisions that the agency must make: determining where and how to act. During the final two years of the Trump administration, the Forest Service attempted to explicitly codify CBM provisions in revisions to its NEPA regulations, although those provisions were dropped from the final rule. Simultaneously, other federal land-management agencies like the Bureau of Land Management have started to use CBM analogues in their NEPA-related planning documents. Although it is still early, the Biden administration's newly appointed Council on Environmental Quality team has yet to weigh in on CBM. If use of CBM continues in a manner that undermines public participation and NEPA's "hard look" standard, some of our riskiest land management projects may not receive proper environmental oversight.

The project is not taking a hard look as required by NEPA. Please withdraw the EA until site specific prescriptions and unit boundaries are firmed up, then issue and take comments on an EIS with appropriate prescriptions.

Please find attached the Federal District Court of Alaska's ruling on condition-based management.

The project is in violation of NEPA, NFMA, the ESA, the Forest Plan, and the APA. The Forest Service's response states the project was intentionally designed to not tell the public when and where the Forest Service plans log and burn.

Remedy

Choose the No Action Alternative or withdraw the draft Decision Notice write and EIS that fully follows the law.

We wrote in our August 28, 2023 comments:

Disclose how Project complies with the Roadless Rule;

The Forest Service responded:

No roads are proposed in IRA; Access is disclosed within EA

The 2001 Roadless Rule also provides guidance for management in Inventoried Roadless Areas. The IRA briefing and worksheets are incorporated into the analysis and summarized in the EA.

The removal of small diameter timber from the IRAs was found to be justified on the basis of the proposed project's ability:
(i) To improve threatened, endangered, proposed, or sensitive species habitat; AND
(ii) To maintain or restore the characteristics of ecosystem composition and structure, such as to reduce the risk of uncharacteristic wildfire effects, within the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period

During the development of the project, briefings to the Forest Supervisor and Regional Office were prepared by the Interdisciplinary Team and Line Officer describing the need for the proposed activities within IRAs and how these activities would comply with the Roadless Area Rule. These are included within the project file, ____. The overarching objective of the proposed treatments is to create and maintain resistant and resilient landscapes and reduce the potential for unwanted widespread and severe effects in the event of wildfire. Given that multiple fire cycles have been missed and limited management has recently occurred within the IRAs, there is a need to address uncharacteristically high fuel loadings and

departures from desired conditions with regard to vegetation composition and structure, consistent with the natural range of variability that would be expected under natural disturbance regimes. Within Alternative 1, about 548 acres of commercial thinning is proposed which would result in the cutting, sale, and removal of small diameter timber. What constitutes "small diameter timber" is dependent on the specific conditions found within the proposed treatment areas. In this project, the proposed harvesting within the IRAs would primarily occur within the ponderosa pine cover type where the majority of the current stocking is in trees less than 12" dbh. The focus of the density reduction would be on the removal of trees in the lower canopy classes while favoring the largest trees on the site for retention. This would be done to reduce the potential for crown fire and to promote the development and persistence of relatively low density forest dominated by large trees. The most common size of the trees targeted for removal would be those less than 12" dbh. In some portions of the proposed commercial thinning units, trees up to 18" dbh could be cut and removed, but this would be uncommon and only occur if such trees were heavily infected with dwarf mistletoe or in localized patches where conditions are overly dense among trees of nearly equal or larger size. The proposed harvesting would be restricted to areas where yarding to the existing road network can occur, generally involving skidding distances of less than 1,500' feet. No new roads would be constructed for this project nor is reconstruction proposed within the IRAs.

The proposed action includes a combination of mechanical and prescribed fire treatments within three project area IRAs. Pre-burn activities, such as hand and or mechanical -thinning, slashing, and piling may be used to re- arrange existing surface, ladder, and canopy fuels. This work may be used to create or improve natural and/or human made fire breaks to manage and contain prescribed burn activities. These activities will be conducted primarily on ladder fuels and small diameter trees to aid in fireline reinforcement and ignition.

Use of commercial timber sales or harvest activities will only occur within the IRAs where there is access from existing system roads and is designed to maintain or restore the characteristics of ecosystem composition and structure, such as to reduce the risk of uncharacteristic wildfire effects, within the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period. This potential cutting within inventoried roadless areas is incidental to other activities not otherwise prohibited. Timber removal would also require skidding and forwarding of commercial material in IRAs using both tracked and wheeled heavy equipment. Individual skid distances would generally be no greater than 1500 feet as cutting units were planned in close proximity to existing roads to facilitate extraction.

Constructed fireline may be needed to augment natural or human made features used as fireline in the IRAs; this will be used minimally where conditions necessitate the

construction of fireline to protect resources and conduct safe operations. These impacts will be reclaimed upon completion of prescribed fire activities when deemed necessary. Limited cross-country motorized vehicle travel (where terrain and conditions allow) may be used to conduct pre-treatment actions and support operations.

Sudden changes to the visual landscape will result from this project. This project works to mimic natural occurring changes typical of the natural ecological burn cycle. Some visitors accustomed to heavily vegetated landscapes may experience a sense of depreciated experience.

During active project work, due to presence of crews and equipment, opportunities for solitude may be reduced and could impact some visitor's experience. In the short-term, small stumps and slash piles will detract from the natural appearance of the landscape in local areas where slashing and non- commercial thinning occur but will not change the overall character of the roadless expanse. Diversity of plant and animal communities and their habitats will be improved over the long-term and negative effects from potential disturbance and fragmentation will be limited and short-term.

The Forest Service recognizes the value of forestland unencumbered by roads, timber harvest, and other development. Sometimes these areas are known as "inventoried roadless areas" if they have been inventoried through the agency's various Roadless Area Review Evaluation processes, or "unroaded areas" if they have not been inventoried but are still of significant size and ecological significance such that they are eligible for congressional designation as a Wilderness Area.

Roadless areas provide clean drinking water and function as biological strongholds for populations of threatened and endangered species. Special Areas; Roadless Area Conservation; Final Rule, 66 Fed. Reg. 3,244, 3,245 (Jan. 12, 2001) (codified at 36 C.F.R. Part 294). They provide large, relatively undisturbed landscapes that are important to biological diversity and the long- term survival of many at-risk species.

Roadless areas provide opportunities for dispersed outdoor recreation, opportunities that diminish as open space and natural settings are developed elsewhere. Id. They also serve as bulwarks against the spread of non-native invasive plant species and provide reference areas for study and research. Id.

Other values associated with roadless areas include: high quality or undisturbed soil, water, and air; sources of public drinking water; diversity of plant and animal communities; habitat for threatened, endangered, proposed, candidate, and sensitive species and for those species dependent on large, undisturbed areas of land; primitive, semi-primitive non-motorized, and semi-primitive motorized classes of dispersed recreation; reference landscapes; natural appearing cultural properties and sacred sites; and other locally identified unique characteristics.

The Roadless Rule mandates:

Prohibition on timber cutting, sale, or removal in inventoried roadless areas.

(a) Timber may not be cut, sold, or removed in inventoried roadless areas of the National Forest System, except as provided in paragraph (b) of this section.

(b) Notwithstanding the prohibition in paragraph (a) of this section, timber may be cut, sold, or removed in inventoried roadless areas if the Responsible Official determines that one of the following circumstances exists. The cutting, sale, or removal of timber in these areas is expected to be infrequent.

(1) The cutting, sale, or removal of generally small diameter timber is needed for one of the following purposes

and will maintain or improve one or more of the roadless area characteristics as defined in § 294.11.

(i) To improve threatened, endangered, proposed, or sensitive species habitat; or

(ii) To maintain or restore the characteristics of ecosystem composition and structure, such as to reduce the risk of uncharacteristic wildfire effects, within the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period;

(2) The cutting, sale, or removal of timber is incidental to the implementation of a management activity not otherwise prohibited by this subpart;

... .
36 C.F.R. §294.13 (2005)(emphases added).

The Roadless Rule further explains the meaning of the phrase "incidental to" in subsection (b)(2) above as follows:

Paragraph (b)(2) allows timber cutting, sale, or removal in inventoried roadless areas when incidental to implementation of a management activity not otherwise prohibited by this rule. Examples of these activities include, but are not limited to trail construction or maintenance; removal of hazard trees adjacent to classified road for public health and safety reasons; fire line construction for wildland fire suppression or control of prescribed fire; survey and maintenance of property boundaries; other authorized activities such as ski runs and utility corridors;

or for road construction and reconstruction where allowed by this rule.

66 Fed. Reg. 3258.

Are the roadless areas in the project area currently within the natural historic range of variability? Is the project area within natural range for wildfire conditions? Will this prescribed Fire Project substantially alter the Roadless characteristics in the inventoried roadless areas within the project area?

Use of an EA for this project is also invalid because the proposed vegetation treatments would occur within Inventoried Roadless Areas (IRA). Thisqualifies as an extraordinary circumstance that invalidates use of a EA. It is the existence of a cause- effect relationship between a proposed action and the potential effects on these resource conditions and if such a relationship exists, the degree of the potential effects of a proposed action on these resource conditions that determine whether extraordinary circumstances exist (36 CFR 220.g(b).

In relevant part, regarding the prohibition on tree cutting, the Roadless Rule mandates: Prohibition on timber cutting, sale, or removal in inventoried roadless areas. 1. Timber may not be cut, sold, or removed in inventoried roadless areas of the National Forest System, except as provided in paragraph (b) of this section. 2. Notwithstanding the prohibition in paragraph (a) of this section, timber may be cut, sold, or removed in inventoried roadless areas if the Responsible Official determines that one of the following

circumstances exists. The cutting, sale, or removal of timber in these areas is expected to be infrequent. 1. The cutting, sale, or removal of generally small diameter timber is needed for one of the following purposes and will maintain or improve one or more of the roadless area characteristics as defined in § 294.11. 1. To improve threatened, endangered, proposed, or sensitive species habitat; or 2. To maintain or restore the characteristics of ecosystem composition and structure, such as to reduce the risk of uncharacteristic wildfire effects, within the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period;

2. The cutting, sale, or removal of timber is incidental to the implementation of a management activity not otherwise prohibited by this subpart; 36 C.F.R. §294.13 (2005).

The Roadless Rule further explains the meaning of the phrase "incidental to" in subsection (b)(2) above as follows:

Paragraph (b)(2) allows timber cutting, sale, or removal in inventoried roadless areas when incidental to implementation of a management activity not otherwise prohibited by this rule. Examples of these activities include but are not limited to trail construction or maintenance; removal of hazard trees adjacent to classified road for public health and safety reasons; fire line construction for wildland fire suppression or control of prescribed fire; survey and maintenance of property boundaries; other authorized activities such as ski runs and utility corridors; or for road construction and reconstruction where allowed by this rule. Page 4 of the scoping notice states: "Use of

prescribed fire is proposed on the remaining national forest system lands within the Forest, which includes inventoried roadless areas." It appears that the Project authorizes tree cutting on in roadless areas, the Project EA is not clear how the Forest Service will access those units. It is unclear whether the Forest Service will be reconstructing old roads, using illegal user-created roads, or using roads already closed by the Travel Plan in the Inventoried Roadless Area in order to conduct these activities. Please clarify what roads will be used. Every one of these examples shows that the management activity itself is not any form of vegetation management, i.e. tree-cutting - instead the management activities are things like trail management, road management, firefighting, land surveys, ski runs, utility corridors, or lawful road construction. In contrast, here the management activity itself is vegetation\ management, i.e. tree cutting. The Forest Service's interpretation of exemption (b)(2) is contrary to the explanation of "incidental to" in the Roadless Rule, and if adopted, would swallow the rule. The Forest Service could simply avoid the tree-cutting ban by labeling every tree-cutting activity in a Roadless Area as something other than tree-cutting - such as “restoration" - and thereby circumvent the ban with euphemisms. This is clearly not the intent of the Roadless Rule. 66 Fed. Reg. 3258. Accordingly, the (b)(2) exemption does not apply here.

Page 3 of the “Region 4 Roadless Project Summary and Briefing Sheet 2001 Roadless Rule” states that 24,348 acres will be logged with much of it being commercial

logging. This is not incidental to purpose and need of the project. It is the main purpose of the project.

The Hungry Creek project is involution of the Roadless Conservation Rule, NEPA, NFMA, and the APA.

The Hungry Creek Project violates the Roadless Rule because, among other things: Neither the Hungry Creek Project EA nor any of the Dixie National Forest's supporting documents defines what constitutes a "small diameter" tree for any of the stands within the project area's Inventoried Roadless Areas except to write in the roadless report:

Project Compliance: The average diameter for removal is anticipated to be 8-14 inches. Under regional guidance the smallest diameter non-saw merchantable timber is 8" Diameter at Breast Height (DBH). Historical markets show 10-14" diameter is the smallest diameter considered feasible for harvest.

But the Forest Service's justification is not part of the roadless rule.

The Forest Service definition of a small tree in Regions One and Four found in the attached document, titled, "A Compendium of NFS Regional Vegetation Classification Algorithms" states that a small tree is 5 - 10 inches in diameter. Trees smaller than that are consider seedlings and samplings. Therefore the Hungry Creek EA, Decision Notice and FONSI is violating the Roadless rule based on the Forest Service's own definition of a small tree.

The Hungry Creek project is not just commercially logging a few larger trees, the EA says the project area is overstocked with middle age trees. Getting rid of too many middle age trees is not a valid exception to the roadless rule.

The decision also has no limit on the size of a tree that they can cut in violation of the Roadless Rule, NEPA, NFMA and the APA.

Neither the Hungry Creek EA nor any of the Dixie National Forest's supporting documents limits the cutting, sale, or removal of trees in Inventoried Roadless Areas to generally small diameter trees.

In fact, the Decision Notice and final EA states on page 12 that one of the purposes of the project is: "Salvage the commercial value of timber stands threatened by current or imminent mortality." This is not incidental to the purpose of the project. It is one of the purposes of the project.

REMEDY

Withdraw the Draft Decision Notice and FONSI and write and EIS that fully complies with the law.

Overall, the EA is devoid of any useful information to the public as to why this project enhances wildlife habitat, or is needed to maintain natural ecosystem processes within an IRA. If juniper is so flammable, it is not clear why it has to be slashed before it can be burned. It is clear that this

project requires much more information to be provided to the public, and much more documentation to justify vegetation management within the IRA. And as previously noted, the criteria which the resource specialists used to estimate the level of impact needs to be provided, as well, to the public. It seems readily apparent that this project requires at a minimum an environmental assessment in order to comply with the NEPA, including the provision of valid, reliable information to the public when the Forest Service is planning resource management activities.

While the Forest Service does not explain how any of the Hungry Creek Project provisions will limit logging to small diameter trees, the Hungry Creek Project EA indicates that some "treatments" will do the opposite by targeting large trees for cutting, sale, or removal, or by targeting all trees in a stand for removal.

Neither the Hungry Creek Project EA nor any of the Dixie National Forest's supporting documents provides stand-level data for inventoried roadless areas to allow the public or the decision-maker to discern either the size of trees in stands in the project area, or the size of trees to be removed.

Neither the Hungry Creek Project EA nor any of the Dixie National Forest's supporting documents alleges or demonstrates that stands proposed for logging are "overstocked" with small diameter trees that require thinning.

NEPA and its implementing regulations require federal agencies, including the Forest Service, to take a "hard

look" at the environmental consequences of proposed actions and the reasonable alternatives that would avoid or minimize such impacts or enhance the quality of the human environment. See 42 U.S.C. § 4332(2)(C)(i); 40 C.F.R. Parts 1502 and 1508 (1978). Agencies must take a hard look at the direct, indirect, and cumulative impacts of a proposed agency action and all alternatives in an EA. 40 C.F.R. §§ 1508.7, 1508.8 (1978). The information presented in the EA must be of high quality and include "accurate scientific analysis," and disclose that information and analysis, and its limitations, to the public. 40 C.F.R. § 1500.1(b)–(c) (1978).

NEPA also requires environmental analysis to disclose existing conditions in the project area to provide a baseline against which the impacts of alternative courses of action can be compared.

The Forest Service failed to take the required "hard look" to consider and disclose the Aspen Project's direct, indirect, and cumulative impacts, including impacts of logging in Inventoried Roadless Areas.

For example, the NEPA and its implementing regulations require federal agencies, including the Forest Service, to take a "hard look" at the environmental consequences of proposed actions and the reasonable alternatives that would avoid or minimize such impacts or enhance the quality of the human environment. See 42 U.S.C. § 4332(2)(C)(i); 40

C.F.R. Parts 1502 and 1508 (1978). Agencies must take a hard look at the direct, indirect, and cumulative impacts of a proposed agency action and all alternatives in an EA. 40 C.F.R. §§ 1508.7, 1508.8 (1978). The information presented in the EA must be of high quality and include "accurate scientific analysis," and disclose that information and analysis, and its limitations, to the public. 40 C.F.R. § 1500.1(b)–(c) (1978).

NEPA also requires environmental analysis to disclose existing conditions in the project area to provide a baseline against which the impacts of alternative courses of action can be compared. Id.

The Forest Service failed to take the required "hard look" to consider and disclose the Hungry Creek Project's direct, indirect, and cumulative impacts, including impacts of logging in Inventoried Roadless Areas.

For example, the Hungry Creek EA fails to demonstrate that the forest stands within Inventoried Roadless Areas where tree removal can occur are overstocked with small trees, or where specific types of logging will occur within Inventoried Roadless Areas, thus making it impossible for the Forest Service or the public to understand the impacts of the proposed action, especially whether the Hungry Creek project complies with the Roadless Rule.

The Forest Service's failure to take the required "hard look" at the Hungry Creek Project's baseline, and the direct, indirect, and cumulative impacts and the agency's action violates NEPA. By relying on the defective EA, DN

and FONSI for its decision, the Forest Service's action is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law, and accordingly the Decision Notice and EA must be held unlawful and set aside. 5 U.S.C. § 706(2)(A). The EA fails to disclose the nature of forest stands within Inventoried Roadless Areas where tree removal can occur, or where specific types of treatments will occur within Inventoried Roadless Areas, thus making it impossible for the Forest Service or the public to understand the impacts of the proposed action, especially whether the Aspen Project can comply with the Roadless Rule.

The Forest Service's failure to take the required "hard look" at the Hungry Creek Project's baseline, and the direct, indirect, and cumulative impacts and the agency's action violates NEPA. By relying on the defective EA, DN and FONSI for its decision, the Forest Service's action is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law, and accordingly the Decision Notice and EA must be held unlawful and set aside.

REMEDY

Choose the No Action Alternative or withdraw the Decision Notice and FONSI and write and EIS that fully complies with the law.

We wrote in our comments:

Please see the attached paper by Dr. William Baker titled: "Are High-Severity Fires Burning at Much Higher Rates Recently than Historically in Dry-Forest Landscapes of the Western USA?"

Dr. Baker writes: "Programs to generally reduce fire severity in dry forests are not supported and have significant adverse ecological impacts, including reducing habitat for native species dependent on early-successional burned patches and decreasing landscape heterogeneity that confers resilience to climatic change."

Dr. Baker concluded: "Dry forests were historically renewed, and will continue to be renewed, by sudden, dramatic, high-intensity fires after centuries of stability and lower-intensity fires."

The purpose of this project is to improve big game and grouse habitat and to make the forest more resilient and plan for a more historic fire regime. Based on Dr. Baker's paper, the proposed action will not meet the purpose and need of the project.

Please find attached DellaSala et al 2022. Please also find attached, Baker 2023.

Countering Omitted Evidence of Variable Historical Forests and Fire Regime in Western USA Dry Forests: The Low-Severity-Fire Model Rejected

William L. Baker [1,*]

, Chad T. Hanson [2], Mark A. Williams [3] and Dominick A. DellaSala [4]

1 2 3 4

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Abstract: The structure and fire regime of pre-industrial (historical) dry forests over ~26 million ha of the western USA is of growing importance because wildfires are increasing and spilling over into communities. Management is guided by current conditions relative to the historical range of variability (HRV). Two models of HRV, with different implications, have been debated since the 1990s in a complex series of papers, replies, and rebuttals. The "low-severity" model is that dry forests were relatively uniform, low in tree density, and dominated by low- to moderate-severity fires; the "mixed-severity" model is that dry forests were heterogeneous, with both low and high tree densities and a mixture of fire severities. Here, we simply rebut evidence in the low-severity model's latest review, including its 37 critiques of the mixed-severity model. A central finding of high-severity fire recently exceeding its historical rates was not supported by evidence in the review itself. A large body of published evidence supporting the mixed-severity model was omitted. These included numerous direct observations by early scientists, early forest atlases, early newspaper accounts, early oblique and aerial photographs, seven paleo-charcoal reconstructions, ≥18 tree-ring reconstructions, 15 land survey reconstructions,

and analysis of forest inventory data. Our rebuttal shows that evidence omitted in the review left a falsification of the scientific record, with significant land management implications. The low-severity model is rejected and mixed-severity model is supported by the corrected body of scientific evidence.

Dr. Baker's and DellaSala's paper are the best available science. Please explain why this project is not following the best available science.

Please explain include a discussion of the following:

1. Baker and Shinneman. 2004. Fire rotation for high-severity fire in juniper is estimated at 400-480 years.

2. Floyd and others. 2004. Stand replacing fires in juniper 400 years or longer.

3. Bauer and Weisberg. 2009. The fire cycle in pinyon-juniper was estimated at 427 years.

What evidence do you have that shows fire has been suppressed in the area?

Baker and Shinneman (2004), Bauer and Weisberg (2009), and Floyd et al. 2004) that demonstrate that the fire cycle in juniper woodlands is very long, up to 400 years or longer, and has not been impacted by any fire suppression actions since settlement. In addition, Coop and Magee (Undated) noted that low-severity fire is not generally considered to have played an important role in

shaping patterns of pre- settlement pinyon-juniper woodland structure, where fire regimes were mostly characterized by rare stand-replacing fire; as a result, they noted that direct management interventions such as thinning or fuel reductions may not represent ecological restoration.

Please find Schoennagel et al (2004) attached.

Schoenagel states: "we are concerned that the model of historical fire effects and 20th-century fire suppression in dry ponderosa pine forests is being applied uncritically across all Rocky Mountain forests, including where it is inappropriate.

Schoennagel et al (2004) states: "High-elevation subalpine forests in the Rocky Mountains typify ecosystems that experience infrequent, high-severity crown fires []. . . The most extensive subalpine forest types are composed of Engelmann spruce (Picea engelmannii), subalpine fir (Abies lasiocarpa), and lodgepole pine (Pinus contorta), all thin- barked trees

ea- sily killed by fire. Extensive stand-replacing fires occurred historically at long intervals (i.e., one to many centuries) in subalpine forests, typically in association with infrequent high-pressure blocking systems that promote extremely dry regional climate patterns."

Schoennagel et al (2004) states: "it is unlikely that the short period of fire exclusion has significantly altered the long fire intervals in subalpine forests. Furthermore, large, intense fi- res burning under dry conditions are very difficult, if not impossible, to suppress, and such fires account for the majority of area burned in subalpine forests.

Schoennagel et al (2004) states: "Moreover, there is no consistent relationship between time elapsed since the last fire and fuel abundance in subalpine forests, further undermining the idea that years of fire

suppression have caused unnatural fuel buildup in this forest zone."

Schoennagel et al (2004) states: "No evidence suggests that spruce–fir or lodgepole pine forests have experienced sub- stantial shifts in stand structure over recent decades as a re- sult of fire suppression. Overall, variation in climate rather than in fuels appears to exert the largest influence on the size, timing, and severity of fires in subalpine forests []. We conclude that large, infrequent stand replacing fires are 'business as usual' in this forest type, not an artifact of fire suppression.".

Schoennagel et al (2004) states: "Contrary to popular opinion, previous fire suppression, which was consistently effective from about 1950 through 1972, had only a minimal effect on the large fire event in 1988 []. Reconstruction of historical fires indicates

that similar large, high-severity fires also occurred in the early 1700s []. Given the historical range of variability of fire regimes in high-elevation subalpine forests, fire behavior in Yellow-stone during 1988, although severe, was neither unusual nor surprising."

Schoennagel et al (2004) states: "Mechanical fuel reduction in sub- alpine forests would not represent a restoration treatment but rather a departure from the natural range of variability in stand structure."

Schoennagel et al (2004) states: "Given the behavior of fire in Yellowstone in 1988, fuel reduction projects probably will not substantially reduce the frequency, size, or severity of wildfires under extreme weather conditions."

Schoennagel et al (2004) states: "The Yellowstone fires in 1988 revealed that variation in fuel conditions, as measured by stand age and density, had only minimal influence on fire behavior. Therefore, we expect fuel- reduction treatments in high-elevation forests to be generally unsuccessful in reducing fire frequency, severity, and size, given the overriding importance of extreme climate in controlling fire regimes in this zone. Thinning also will not restore subalpine forests, because they were dense historically and have not changed significantly in response to fire suppression. Thus, fuel- reduction efforts in most Rocky Mountain sub- alpine forests probably would not effectively mitigate the fire hazard, and these efforts may create new ecological problems by moving the forest structure outside the historic range of variability."

Likewise, Brown et al (2004) states: "At higher elevations, forests of subalpine fir, Engelmann spruce, mountain hem- lock, and lodgepole or whitebark pine predominate. These forests also have long fire return intervals and contain a high proportion of fire sensitive trees. At periods averaging a few hundred years, extreme drought conditions would prime the- se forests for large, severe fires that would tend to set the forest back to an early successional stage, with a large carry- over of dead trees as a legacy of snags and logs in the regenerating forest . . . . natural ecological dynamics are largely preserved be- cause fire suppression has been effective for less than one natural fire cycle. Thinning for restoration does not appear to be appropriate in these forests. Efforts to manipulate stand structures to reduce fire hazard will not only be of limited

effectiveness but may also move systems away from pre-1850 conditions to the detriment of wildlife and water- sheds." "Fuel levels may suggest a high fire 'hazard' under conventional assessments, but wildfire risk is typically low in these settings."

Likewise, Graham et al (2004) states: "Most important, the fire behavior characteristics are strikingly different for cold (for example, lodgepole pine, Engelmann

spruce, subalpine fir), moist (for example, western hemlock, western redcedar, western white pine), and dry forests. Cold and moist forests tend to have long fire- return intervals, but fires that do occur tend to be high- intensity, stand-replacing fires. Dry forests historically had short intervals between fi- res, but most important, the fires had low to moderate severity."

According to Graham et al (2004), thinning may also increase the likelihood of wildfire ignition in the type of forests in this Project area: "The probability of ignition is strongly rela- ted to fine fuel moisture content, air temperature, the amount of shading of surface fuels, and the occurrence of an ignition source (human or lightning caused) . . . . There is generally a warmer, dryer microclimate in more open stands (fig. 9) compared to denser stands. Dense stands (canopy cover) tend to provide more shading of fuels, keep- ing relative humidity higher and air and fuel temperature lower than in more open stands. Thus, dense stands tend to maintain higher surface fuel moisture contents com- pared to more open stands. More open stands also tend to allow higher wind speeds that tend to dry fuels compared to dense stands. These factors may in- crease probability of

ignition in some open canopy stands compared to dense canopy stands."

Please see the attached report titled: "Have western USA fire suppression and megafire active management approaches become a contemporary Sisyphus?" By Dominick A. DellaSala[a,*], Bryant C. Baker[b,c], Chad T. Hanson[d], Luke Ruediger[e,f], William Baker[g]

Which wildlife species and ecosystem processes, if any, does the fire-proofing in the proposed project benefit?

Which species and processes do fire-proofing harm?

What is your definition of healthier?

What evidence do you have that this logging will make the forest healthier for fish and wildlife? What about the role of mixed severity and high severity fire – what are the benefits of those natural processes?

How have those processes (mixed and high severity fire) created the ecosystems we have today?

Over how many millennia have mixed and high severity fire have been occurring without human intervention?

What beneficial ecological roles do beetles play? You didn't answer this in violation of NEPA, NFMA and the APA.

Can the forest survive without beetles?

Will all WQLS streams in the project area have completed TMDLs before a decision is signed?

Will this project leave enough snags to follow the Forest Plan requirements and the requirements of sensitive old growth species such as flammulated owls and goshawks?

Will this Project exacerbate existing noxious weed infestations and start new infestations?

The Forest Service responded:

At fine scales, such as a patch of forest, uniformity is not necessarily problematic and existing conditions within some vegetation types may be more uniform in terms structural attributes (species composition, size class distribution, density and the like). However at larger scales variety and complexity in vegetation conditions is critical for maintaining a diversity of habitats and reducing vulnerability to drastic and widespread changes that could otherwise result from disturbances; Mortality from beetles is a natural part of forest and woodland ecosystems and contibutes to biological diversity and dead trees provide important functional benefits. Among these are habitat and food sources for a variety of organisms as well as nutrient cycling; There is no assertion made in the EA that exclusion of stand replacement fire is needed. Wildfires are very likely to occur in the future within the project area regardless of land management actions that take place. As stated in the purpose and need, the proposed treatments are designed to reduce the risk of uncharacteristically large high-severity wildfires; Literature cited in project record, PFC, Properly Function Condition; The proposed activities are designed to meet the purpose and need as described on p. 27 of the EA. The proposed managemnt activities occur with natural vegetation communities and do not seek to create oversimplified structures inappropriate for the sites involved. Where planting is proposed locally adapted tree species and seed sources would be utilized; Perceptions of forest health involve utilitarian (or human-centric notions) of how current conditions do or do not threaten

the ability to achieve management objectives and ecosystem perspectives that emphasize maintaining functional diversity and adequate levels of resistance to drastic change following disturbance and/or the capacity to recover to a similar state (resiliency). A sense of scale is important when considering forest health. When considering an individual tree, for example, health can be assessed by evaluating the condition of the crown as an indication of tree vigor, growth rates, or visual evidence of insects or disease impacts. A dead, dying, or low vigor tree is not healthy in this context. But at broader scales the presence of such a tree or trees does not indicate that an entire stand of trees is unhealthy. From an ecosystem perspective, at broad scales forests can be considered unhealthy when resistance or resilience is inadequate such that there is high likelihood of undesirable or unprecedented levels of change in the event that a disturbance occurs (e.g. a very large uncharacteristically high- severity wildfire or bark beetle outbreak). An older definition of forest health from 1990s: "Forest health is a condition of forest ecosystems that sustains their complexity while providing for human needs". A definition from recent literature (Shaw et al. 2022): "A subjective concept incorporating themes such as biodiversity, resilience, resistance, sustainability, ecosystem services, sustained productivity, human values, and land management objectives." ; Forest health can be measured in a variety of ways. The Forest Service's Forest Health and Protection program and the Utah Department of Natural Resources periodically publish

reports that are available to the public. These reports compile and summarize information from sources like Aerial Detection Surveys, remote sensing, and inventory plots. The proposed activities would reduce vulnerability to widespread and severe impacts from disturbance and thereby improve forest health; Monitoring would be required as stated within several of the individual project design features (starting on p. 35 of the EA) and as stated within Appendix 1, the Implementation Checklist. As stated within project design feature G-1 (p. 39), prior to any implementation, an Interdisciplinary Team will develop a monitoring plan. This would occur after the NEPA decision.

The Forest Service did not answer all of our questions and offered no evidence that the project will make the Forest more resilient or a healthier forest in violation of NEPA, NFMA and the APA.

The project is not meeting the purpose and need.

Remedy

Withdraw the draft Decision Notice and FONSI and write an EIS that fully complies with the law or choose the No Action Alternative.

We wrote in our August 28, 2023 comments:

Page 55 - 56 of the EA states:

Effects to Carbon and Climate Change from Alternative 1 and Alternative 2

This proposed project affects a relatively small amount of forest land and carbon on the Dixie National Forest and might temporarily contribute an extremely small quantity of GHG emissions relative to national and globalemissions. This proposed action will not convert forest land toother non-forest uses, thus allowing any carbon initially emitted from the proposed action to have a temporary influence on atmospheric GHG concentrations, because carbon will be removed from the atmosphere over time as the forest regrows. Furthermore, the proposed project will transfer carbon in the harvested wood to the product sector, where it may be stored for up to several decades and substitute for more emission intensive materials or fuels. This proposed action is consistent with internationally recognized climate change adaptation and mitigation practices.

A complete and quantitative assessment of forest carbon stocks and the factors that influence carbon trends (management activities, disturbances, and environmental factors) for the Dixie National Forest National Forest (NF) is available in the project record (Dugan et al., 2020). This carbon assessment contains additional

supporting information and references supporting this analysis.

The Climate Change Vulnerability and Adaptation in the Intermountain Region report, (USDA Forest Service RMRS-GTR-375. 2018) summarizes the effects of climate change for the different vegetation types in the region including those found in the Hungry Creek VIP. The Intermountain Climate Change and Adaptation Report also discusses adapting forest and non-forest management to the effects of climate change. Thinning and prescribed fire can both be used to reduce forest density and promote drought and disturbance-resilient species. Promoting landscape diversity, in terms of species, age classes, and structure, is also likely to increase forest resiliency to wildfire, insects, and disease (Janowiak et al. 2014). In sagebrush ecosystems where pinyon pine and juniper have encroached, active management (removal) is likely to help increase sagebrush resilience (Creutzburg et al. 2015).

The effects of future climate conditions are complex and remain uncertain. However, under changing climate and environmental conditions, forests of the Dixie NF may be increasingly vulnerable to a variety of stressors. These potentially negative effects might be balanced somewhat by the positive effects of longer growing season, greaterprecipitation, and elevated atmospheric CO 2 concentrations. However, it is difficult to judge how these factors and their interactions will affect future carbon dynamics on the Dixie NF.

The Dixie NF will maintain forests, shrublands and grasslands in the foreseeable future, which will allow for a continuation of carbon uptake and storage over the long term. Across the broader region, land conversion fordevelopment on private ownerships is a concern and this activity can cause substantial carbon losses (FAOSTAT, 2013; USDA Forest Service, 2016). The Dixie NF will continue to have an important role in maintaining the carbon sink, regionally and nationally, for decades to come. (Dugan, McKinley and Leslie, 2020).

This project would result in the release of CO 2 as the result of heavy equipment operation, timber hauling and road maintenance and reclamation. These releases will be limited in magnitude and duration. Harvested trees turned Hungry Creek Vegetation Improvement Project

into commercial products will continue to bind carbon. Masticated vegetation will continue to hold carbon as well. The uppermost soil horizons may release some CO 2, if they experience disturbance due to equipment operation or are exposed during road construction or maintenance. Overall, the project should have a neutral to positive balance on carbon sequestration and climate change as the vegetation treatments are designed to reduce thethreat of high-intensity wildfire from killing large patches of intact forest in a single event. If the treatments are successful, the overall resilience of the forest would improve, which would make it more adaptable to climatestressors including drought (Halofsky, et al. 2018).

The National Cohesive Fire Management Strategy Addendum Update (Wildland Fire Council, 2023) identified climate change as one of the new wildland fire critical emphasis areas. Per their report "research shows climate change is intensifying the conditions that drive wildfire and has increased the area and severity burned by wildfire over natural levels. This in addition to increased drought and aridity may contribute to conditions which are less favorable for the use of prescribed fire or other treatments. It will be imperative for managers to understand these impacts and take collective action (including the use of prescribed fire and mechanical treatments) to bring fire back into balance. Traditional, place-based ecological knowledge and scientific research provide key information to increase resistance and resilience (Wildland Fire Council, 2023)."

The federal district court of Montana recently ruled against the Kootenai National Forest on the same boiler plate analysis,

writing:Ultimately, greenhouse gas reduction must happen quickly, and removing carbon from forests in the form of logging, even if trees are going to grow back, will take decades to centuries to re-sequester. Put more simply, logging causes immediate carbon losses, while re-sequestration happens slowly over time, time that the planet may not have.

Please find the court's order attached.

Please follow NEPA and take a hard look at the impact of the project on climate change.

The Forest Service responded starting with the following:

There is no single standard for taking a "hard look" under NEPA. Rather, the level of analysis needed is dependent on the action being taken and the anticipated type and degree of effects. CEQ's 2016 guidance directs agencies to employ the rule of reason, concept of proportionality, and agency expertise in determining the depth of analysis proportional to the degree of anticipated impact. The guidance includes specific recommendations for forest management projects involving biogenic carbon emissions, recognizing that some resource management actions result in short-term GHG emissions and carbon stock losses, but have an overall positive effect on ecosystem health and carbon sequestration and storage in the long-term. In accordance with the CEQ guidance, a supplemental project-level Carbon Effects Analysis was prepared to assess the impact of the proposed action on forest carbon stores and climate change. Additionally, the Forest Carbon Assessment for the Dixie National Forest provides a complete and quantitative assessment of forest carbon stocks and the factors that influence carbon trends on the Dixie NF. It also discloses methodologies and uncertainties and provides supporting information and references. Both documents are available in the project record.

Overall, the EA is devoid of any useful information to the public as to why this project enhances wildlife habitat, or is needed to maintain natural ecosystem processes within an IRA. If juniper is so flammable, it is not clear why it has to be slashed before it can be burned. It is clear that this project requires much more information to be provided to the public, and much more documentation to justify vegetation management within the IRA. And as previously noted, the criteria which the resource specialists used to estimate the level of impact needs to be provided, as well, to the public. It seems readily apparent that this project requires at a minimum an environmental assessment in order to comply with the NEPA, including the provision of valid, reliable information to the public when the Forest Service is planning resource management activities.

This is not taking a hard look at the effects of the project on climate change in violation of NEPA.

REMEDY

Withdraw the Draft Decision Notice and FONSI and wrote and EIS that fully complies with the law or chooses the No Action Alternative.

We wrote in our comments:

We still believe because of the size of the project and the cumulative effects of past current and future logging by the Forest Service and private logging in the area the Forest Service must complete a full environmental impact statement (EIS) for this Project. The scope of the Project will likely have a significant individual and cumulative impact on the environment.

F. Disclose the biological assessment for the candidate, threatened, or endangered species with potential and/or actual habitat in the Project area;

G. Disclose the biological evaluation for the sensitive and management indicator species with potential and/or actual habitat in the Project area;

The Forest Service responded on page 11-13 of the Biological Evaluation:

WL-6. In an effort to locate unknown northern goshawk territories, a second year of surveys will be conducted

prior to implementation as outlined in the goshawk amendment to the forest plan, guideline K (USDA 1986, as amended, p C-23).

WL-7. To avoid impacts to breeding northern goshawks, timing restrictions will be applied to all activities within the designated nest areas and PFAs if nests are active as outlined in the goshawk amendment to the forest plan (USDA 1986, as amended).

WL-8. To provide habitat for the goshawk and its prey the percent of the group acreage covered by clumps of trees with interlocking crowns should typically range from 40-70% in post-fledgling and foraging areas, and 50- 70% in nest areas as described in USDA Forest Service (USDA 2000).

WL-9. To minimize impacts to foraging and nesting wildlife, prohibit burning in bitterbrush openings and avoid burning bitterbrush stands within the interspaces of ponderosa pine that are one acre or greater in size. This restriction does not apply to fall burns.

WL-10. To minimize impacts to foraging and nesting wildlife, whenever possible, prohibit burning in mature, Gambel oak stands within the interspaces of forested or woodlands stands.

WL-11. To minimize impacts to breeding flammulated owls, surveys will occur in proposed treatment areas that

contain suitable habitat in an effort to locate nests. If flammulated owl nests are found, a buffer shall be placed around the nest and a timing restriction will be established. Timing restrictions, and restrictions of treatment activities will be made on a case- by-case basis taking into consideration site-specific needs and utilizing the raptor protection guidelines from the USDOI Fish and Wildlife Service (USFWS, 2002b). Recommended buffer size is 0.25 miles with a timing restriction from April 1st to September 30th. Surveys will be conducted prior to vegetation treatments.

WL-12. To provide protection and avoid or minimize impacts to breeding migratory bird species, a buffer and associated timing restriction will be established for all occupied migratory bird nests found during the design or implementation of proposed activities. Buffer size, timing restriction, and restrictions of treatment activities will be made on a case-by-case basis taking into consideration site-specific needs, use, and conditions.

WL-13. To protect potentially nesting Mexican spotted owls, either the 2012 survey protocol will be conducted or a timing restriction will be implemented within the 1/2 mile buffer area surrounding suitable habitat found in the North Creek drainage and The Box canyon area. Proposed activities within the 1/2 buffer include riparian treatments in the North Creek drainage, and pinyon juniper treatments in both areas. If survey of the area is used instead of a timing restriction, survey protocol designated by the USFWS (2012) will be followed

including the second year of surveys will be conducted either the year before or the year of (but prior to) project implementation. Timing restrictions will occur from March 1 to August 31.

WL-14. To protect potential nesting colonies of Pinyon Jays, surveys will be conducted in suitable pinyon-juniper breeding habitat prior to implementation. The most up-to-date protocol from the Pinyon Jay Working Group (PJWG) will be used. If any nesting colonies are found, restrictions of treatment activities will be made on a case-by-case basis, taking into consideration the location of cache sites and corresponding foraging locations in relation to nesting sites, while being consistent with the Conservation Strategy for the Pinyon Jay (Somershoe et al., 2020). Concurrent surveys for black-throated gray warbler, gray vireo, and

Virginia's warbler will occur. Any nesting individuals will be protected with a timing restriction and restrictions of treatment activities will be made on a case-by-case basis.

Northern Goshawk Post-fledgling or Nest Areas

Treatments in northern goshawk post-fledgling or nest areas (PFAs), regardless of vegetation type, would follow the Dixie National Forest Goshawk Amendment to the Forest Plan (USDA 2000). Nest areas may be treated to promote VSS5 and VSS6 structural stages by removing trees in the VSS2 through VSS4 structural stages, while maintaining or increasing the acreage of clumps of trees with interlocking crowns to 50-70%. PFA and foraging

areas may be treated to promote or maintain a properly functioning system, while maintaining or increasing the percentage of acreage of groups of trees in the VSS4-VSS6 stages with interlocking crowns of 40-70%. Implementation of the proposed action will follow requirements regarding snag and down wood retention as outlined in the Dixie National Forest Goshawk Amendment to the Forest Plan (USDA, 2000).

The Forest Service violates NEPA because it fails to take a hard look at the South Plateau Project impacts on the environment and fails to disclose sufficient information to the public.

NEPA requires the Forest Service to discuss direct, indirect, and cumulative effects of the Project. 40 C.F.R. §§ 1502.16; 1508.1(g).

NEPA requires that agencies take a "hard look" at the environmental consequences of its proposed actions *before* the agency chooses a particular course of action, without favoring a pre-determined outcome.

NEPA further requires that relevant information be made available to the public so that they may play a role in

both the decision making and implementation of the Project.

The Forest Service does not provide site-specific information about the Hungry Creel Project or its impacts. The Hungry Creek EA does not disclose specific locations where logging, road construction, or prescribed burns will occur within the Project area.

The EA does not adequately address the direct, indirect, and cumulative effects of the Project on the human environment.

The Forest Service therefore violates the hard-look and public disclosure requirement of NEPA and fails to provide sufficient site-specific information or analysis about the Project and it's impacts to foster informed decision making and public participation.

The Forest Service therefore violates NEPA and is not in accordance with law and without observance of procedure required by law under the APA.

Please see the attached petition to list the piton jay for protection under the Endangered Species Act?

The EA does not identify why burning juniper and shrubs enhances wildlife habitat. There is no information in the EA that defines why a lack of fire has degraded wildlife habitat. One has to assume that the presence of juniper woodlands is considered an adverse impact on wildlife, and if burned up, would improve wildlife habitat. We have cited a number of publications, just as examples, that in fact identify the high value of juniper woodlands to wildlife. This value includes forage for mule deer, a species that is to be emphasized on this identified winter range. The value of juniper species to mule deer was identified long ago. For example, Lovaas (1958) reported that the primary winter forage for mule deer in the Little Belt Mountains of Montana were several species of juniper. More recently, this importance was again identified in a published research article. Coe et al. (2018) reported that juniper trees are important to mule deer on their winter ranges in Oregon. There is no information in the notice that indicates why juniper removal will benefit mule deer or elk or any wildlife.

Juniper woodlands are also important habitat for many nongame birds (Coop and Magee undated; Reinkensmeyer 2000; Magee et al. 2019).. Coop and Magee (undated) noted that juniper removal treatments substantially reduced the occupancy of pinon-juniper specialists and conifer obligate species, including the pinyon jay. There is one such species, the pinyon jay, is a species of conservation concern who is associated with juniper habitats (Boone et al. 2018); this paper warns of the detrimental impacts to this declining species due to juniper thinning projects. More recently, please find attached, Magee et al. (2019) who reported that juniper removal projects resulted in decreased occupancy of many associated bird species, including the pinyon jay. These research reports are consistent with a 2000 report by Reinkensmeyer that juniper woodlands provide important habitat for many bird species, with bird species diversity and density increasing as woodlands progress into old growth juniper. Given the documented high value of old growth juniper forests to wildlife, the EA at a minimum needed to discuss how old growth juniper is being managed in this landscape. The Intermountain Region recognizes old growth juniper (Hamilton 1993). Please find “Mature and Old-Growth Forests: Definition, Identification, and Initial Inventory on

Lands Managed by the Forest Service and Bureau of Land Management" attached where they define old growth juniper as being 200 or more years old. How much old growth juniper is believed as essential for optimal non-game bird management, and where is this old growth juniper going to be maintained in this IRA and project?

The agency does not address the likely adverse impacts of climate change on the persistence of juniper woodlands or values of forests as carbon sinks.

There is no mention in the EA about how climate change could affect the long-term persistence of juniper woodlands. If the persistence of these woodlands will be adversely impacted by climate change, juniper thinning operations will promote the long-term demise of this important conifer. This impact was noted by Coop and Mcgee (Undated). Indeed, the following article newspaper article by Maffly (2019) in the Sale Lake Tribune reported on the mystery of why junipers are dying in Utah; widespread loss of junipers would have far- reaching consequences for southern Utah's fragile desert environments.

Turns out, southern Utah's juniper trees aren't so indestructible after all. But what is killing them?

By Brian Maffly | *June 25, 2019*

Late last fall, about 20 federal scientists toured southeastern Utah, prodding sickly and dead juniper trees, peeling back bark, snapping off branches and digging the dirt around root collars in search of clues to what could be killing the West's most hardy tree species.

Trip leader Liz Hebertson, a plant pathologist with the U.S. Forest Service's Forest Health Protection program, buried her face in a dying juniper's foliage, which had turned a telltale shade of deep yellow, dabbing at the trunk with a small hatchet to get a look at the nutrient-moving phloem beneath the bark.

"Look very carefully and sometimes you'll see fine little threads," said Hebertson, who describes her work as "CSI: Nature."

"Those threads could be produced by defoliating insects. They could be produced by mites. We're looking for webbing, fine threads. We're looking in all of the crevices for frass that's either been kicked out of the inner bark tissues or out of the bark," said Hebertson, her hair dotted with the yellow juniper needles falling from the

branches. “Frass is just fundamentally a mixture of insects’ poop and boring dust.”

Hebertson and her colleagues could see the galleries and dust trails left by beetles, but was the damage enough to kill these trees on Alkali Ridge?

Most likely not, according to a preliminary report. Several months after the scientists’ two-day field trip, the mystery persists although most signs indicate last year’s severe drought, the worst on record for the Four Corners region, may be pushing many junipers over the edge.

However, the report continued, "pinyon pine, a species less tolerant to drought, had not exhibited symptoms of drought-induced stress last spring. This observation suggested that perhaps other abiotic factors, damaging insects, or diseases might be contributing to, or were primarily responsible for, the juniper decline.”

Trees under attack

The die-off was documented last year by Kay Shumway, a retired science educator and botanist from Blanding who first noticed the junipers turning yellow on the southern end of Cedar Mesa. Thanks to his tireless efforts to document the deaths of the region’s signature tree, the Forest Service and other federal agencies began investigating last fall and academic scientists are setting up studies to figure out why an organism so well equipped

for survival is now dying in droves in Utah's San Juan County.

Although juniper is sometimes treated as a trash tree to be ripped out of the ground in the name of habitat restoration, it is a vital part of southern Utah's ecosystem, stitching together fragile desert landscapes. Widespread juniper mortality would deliver an ecological blow similar to what Utah has experienced where bark beetles have run amok in national forests.

But explanations for the juniper deaths are not nearly as clear cut as they are for the Uinta Mountains' lodgepole pines and Wasatch Plateau's Engelmann spruce.

Those trees look like they were eaten alive, their bark dripping with pitch produced by the trees in a failed effort to repel the attackers. The afflicted junipers, by contrast, show only modest levels of infestation.

"In all the large-diameter trees we examined, the total number of flat-headed wood-boring beetle galleries in the inner bark tissues of trunks and large branches was not sufficient to have completely interrupted vascular transport [girdle] within the tree," the report said.

The scientists searched for signs of fungal infections but found little.

"Declining and dead trees had evidence of secondary insect attack. Although some juniper had died, many

symptomatic trees had healthy, green sprigs of foliage growing from their lowermost branches," the report said. "We did not find evidence of insects or diseases in the root systems of trees we examined."

The report recommends continued monitoring and asked the Forest Service to complete an aerial survey this summer to "assess the extent and severity of the juniper decline and crown dieback" across the Four Corners region.

Twice the Forest Service scheduled such surveys, and both times they were canceled due to inclement weather, according to John Guyon of the Forest Health Protection program based in Ogden.

Mapping the juniper mortality is crucial for understanding the extent of the problem and detecting patterns that could bring the causes into sharper focus. It would also provide a baseline against which to measure the spread of mortality.

Rains returned

The region's drought reversed shortly after the scientists' visit when precipitation returned to San Juan County in record amounts. Southeastern Utah enjoyed a snowpack containing more than double the amount of moisture it receives in a typical winter.

Will that put the brakes on the juniper die-off? It's hard to say without the baseline data that aerial surveys could provide, said William Anderegg, a University of Utah biology professor who studies the impact of climate change on forests.

"It's crucial to have that part," Anderegg said. "We would like to know regionally how many trees are dying and you can only know from a plane or satellite."

Anderegg's lab has been approved for a Forest Service grant to study the juniper mortality, and it has already set up a monitoring instrument known as an eddy covariance tower in a spot with dying junipers.

"It measures total carbon take-up and water lost in a patch of forest, a good metric of the overall health of the trees. A healthy forest will be taking up a lot of carbon," Anderegg said. "It puts a sensor above the trees sensing the eddies of air and recording the carbon dioxide concentrations going up and going down. By measuring wind and carbon levels, you can determine how much carbon is being taken up."

His research will couple these measurements with data collected from the trees' tissues.

"We are trying to figure out if drought is killing these trees," he said, "and what are the effects on an ecosystem scale."

Currently, the juniper mortality is far from uniform. Some parts of San Juan County appear unaffected, such as the middle of Cedar Mesa, while junipers are dead and dying on the mesa's southern and eastern margins, said Shumway, who acted as a guide on the scientists' field trip.

"The concern is what is going to happen next year if the beetle flies off and lays eggs in some more trees," said Shumway, while surveying the dying trees around Alkali Ridge.

This area east of Blanding appears to be a hot spot where about half the junipers are afflicted, with the smaller trees showing the greatest severity.

In recent dry years, junipers across the border in Colorado turned bronze but then recovered when rains returned. Utah's yellowed junipers, on the other hand, are goners.

Forest Service scientists gathered beetles from trees they inspected last fall and cut down a few dead junipers to remove cross sections of the trunk for further study in a lab, where they coaxed out more clues.

"We'll seal off the ends with wax. We'll put it in an enclosed box that's totally black on the inside, and we seal off all seams in the box," Hebertson said. "There's one little window of light that attracts the insects when they

emerge. They head toward the light. They get into a trap and they fall down into a cup."

The goal was to identify the beetles residing in the tree, although Hebertson said she was not aware of any wood-boring species that would be considered a primary killer of juniper.

The types of insects later identified were those that typically infest trees weakened by harsh weather, poor site conditions and other stressors, according to the report.

"Abiotic factors such as air pollution, smoke, or temperature extremes might explain the scale of symptoms we observed," the report said, "but drought-induced stress remains the most plausible explanation."

Whatever the cause, the juniper die-off adds to a litany of woes facing Western forests that will likely complicate land management for years and keep the scientific community busy looking for answers.

In addition to the concern about juniper mortality resulting from climate change, we also note that forest thinning in general exacerbates climate change. Milman (2018) recently reported on this issue, noting that scientists say halting deforestation is just as urgent as reducing emissions to address climate change, given the function they provide

as a carbon sink. Forest thinning reduces this carbon sink function.

The impact of juniper treatments on the spread of noxious weeds was generally ignored and downplayed in the EA, even though this is very likely a significant adverse impact of this proposal.

Page 25 of the final EA/DN states:

The pinyon-juniper forest cover types within the project area are abundant, covering about 23 percent of the area. Overstories are dominated by pinyon and juniper species, the tendency is for lower canopy layers to consist of juniper species and generally speaking there is limited amount of pinyon regeneration occurring. The majority of the area consists of trees that are likely relatively young trees (e.g. less than 150-year-old pre-European settlement), those less than 12" at the root crown. Trees that established over the last century are now maturing and densities increasing. As a result, there has been a homogenization of fuel continuity and the potential fire intensities have increased with departure from historic conditions. Dwarf mistletoe (disease) is widespread in juniper. Ips beetle is present in pinyon and is causing pockets of mortality.

The EA states that ***"The majority of the area consists of trees that are likely relatively young trees (e.g. less than 150-year-old pre-European settlement), those less than 12" at the root crown."*** But this is just an assumption that the EA fails to provide any evidence to back up this assumption.

The attached article by Rathner, 2024 titled, "The Invasion of the Pinyon Juniper," found that the BLM under estimated the age of juniper in the Grand Staircase National Monument which borders the projects area. The EA and Decision Notice are in violation of NEPA, NFMA and the APA for giving the public in correct information about the age of the pinyon-juniper trees. It appears that the project area contains old growth juniper that are much older than what the Decision Notice assumes. Ratner found that Pinyon-Juniper in the area were "from 211 to 426 years old" which is much older than under 150 years the EA/ Decision Notice claims.

There is a considerable awareness today regarding the problems of noxious weed infestations on public lands. One activity that is clearly promoting noxious weeds are fuels reduction and prescribed burning projects. We cite only a few examples at this time. One example is a Joint Fire Science Report by Coop and Magee (Undated), where they note that fuels and juniper reduction treatments resulted in rapid, large and persistent increases in the frequency,

richness and cover of 20 non-native plant species including cheatgrass; exotic plant expansion appeared linked to the disturbance associated with treatment activities, reduction in tree canopy, and alterations to ground cover; exotic species were much more frequently encountered at treated than control sites, occurring at 86% of sample plots in treatments and 51% of untreated sample plots; richness of exotic species in treatments was more than double that of controls. What is also interesting in this study is that cheatgrass showed a negative effect of tree canopy, which means that cheatgrass was benefited by canopy removal. They noted that models for chestgrass alone and all non-native species together indicate strong negative associations with tree canopies, indicating that increased light availability, or perhaps below-ground resources such as moisture or nitrogen, enhance colonization and growth in treatments. Increases in exotic plant species in treatment areas was one of the reasons these researchers concluded that managers need to be cautious about implementing treatments in light of the persistent, negative ecological impacts that accompany woodland thinning in pinyon pine-juniper ecosystems; this includes an increase in fire frequency.

Kerns and Day (2014) also reported that juniper treatments resulted in at least a short-term conversion of juniper woodlands to an exotic grassland. And Kerns (undated) reported similar findings in another Joint Fire Science Program report; she stated that it is a significant challenge for land managers to apply thinning and burning fuel treatments in a manner that does not exacerbate existing weed and associated resource problems due to the reduction of ecological resistance that fuel reduction activities created, combined with the aggressive nature of exotic species present. Kerns also noted that weed problems were also caused in slash pile burning, which is planned for the Rowley Canyon project.

Perchemlides et al. (2008) reported similar problems with juniper thinning projects in Oregon; exotic annual grass cover increased, whereas cover by native perennial grasses did not, in treatment areas; they noted that fuel reduction thinning may have some unintended negative impacts, including expansion of exotic grasses, reduction in native perennial species cover, persistent domination of annuals, and increased surface fuels.

The EA failed to provide any documentation that conversion of juniper woodlands to grasslands, including cheatgrass, improves habitat for all wildlife species.

The agency notes that the project will not only reduce juniper, but various shrubs as well. Although we noted above that juniper woodlands have a very high value to many wildlife species, it is not clear that replacing juniper with grasses, including cheatgrass, balances out the loss of wildlife species removed due to juniper removal by replacement with other wildlife species that use only grasses as habitat. For example, the scooping notice did not identify that mule deer on this winter range use grasses as winter forage. The value of cheatgrass to elk in the winter is also not demonstrated. Cheatgrass seeds are extremely sharp, and use by elk in the winter seems unlikely. Cheatgrass use by wildlife in the summer is also unlikely after early spring, since this grass cures out by summer. The seeds of cheatgrass are also responsible to mortality through blinding of grassland birds (McCrary and Bloom 1984).

General comments on the proposal are as follows:

Parts of this very large project area are big game winter range as per the Forest Plan. The EA failed to define what the specific habitat objectives are for this winter range, including hiding and thermal cover, as well as forage. Juniper and sagebrush are key forage plants for big game on winter ranges. What are the objectives for these forage species? The Forest Plan direction for this management area is binding. If the agency is going to claim that the Forest Plan is being implemented, you need to specifically define how this is being done, instead of simply claiming that juniper and shrub removal is improvement on big game winter range. Also, the science and monitoring behind this claim need to be provided. Currently mule deer populations have been in decline across the western U.S.. We haven't seen any science that reported increases of mule deer populations following removal of juniper and shrubs on their winter ranges.

One issue that is generally ignored in the EA is what shrubs are present, and will be targeted for masticating and burning. Do these control efforts include sagebrush? There is extensive documentation that sagebrush is highly valuable to both elk and deer on winter ranges (Wambolt 1998, Petersen 1993). Removing sagebrush to increase

grasses on winter range, as is suggested in the EA, does not promote mule deer and elk. Sagebrush has a high protein content of almost 13% in the winter, while dormant grasses have a protein content of less than 4% (Peterson 1993). There can be no valid reason to remove sagebrush and replace it with grasses for big game winter forage. The actual replacement species the agency claims are going to be managed for are never identified. But at a minimum, the rationale for removing shrubs and replacing them with grasses on winter range needs to be documented, as is required by the NEPA.

The claim that this project will increase diversity is pure unsupported rhetoric. There is no definition as to what constitutes diversity. What criteria are being used to measure diversity, and why isn't this information provided to the public? For example, what is the criteria for a diversity of age classes in juniper woodlands or sagebrush, and what is this based on? The NEPA requires that the agency provide reliable, valid information to the public on projects. This claim that removing juniper and shrubs will improve diversity is a clear violation of the NEPA, as there is no actual basis for it. Worse, it is not clear why eliminating trees and shrubs increases diversity as per the

standard definitions. What science claims that a grassland has higher habitat diversity than a woodland or forest, or shrubland? One likely factor driving the proposed project is not promotion of big game species and wildlife, but instead is being done for livestock. This may be why there is no actual discussion in the EA of current livestock grazing practices in this landscape.

The claim that thinning and removing juniper will increase resiliency of this area is highly questionable. First, these forests are not highly flammable as per the current science. Second, thinning will likely increase flammability by increasing wind speeds and vegetation drying due to a reduction of shade. Third, flammability will surely be increased over current conditions due to an increase of grasses, including exotic species as cheatgrass. The EA did not provide any actual science to indicate that large scale prescribed burning will reduce fires, and thereby increase "resiliency" of this winter range.

The EA did not provide any monitoring data on the effect of the fire on as winter range, or how this fire affected the extent of exotic vegetation, such as cheatgrass and other weeds. Since the proposed actions will be somewhat

similar in effect, it would seem to be important for the agency to provide this information to the public.

The EA never provides any monitoring data, or references any current science, as to what the specific problems are in this landscape for wildlife. How did the agency determine that the current conditions are causing problems for wildlife? In general, one would not expect trees to be a problem for wildlife, especially juniper which is a highly valuable resource for wildlife, not just for forage, including berries, but as hiding and thermal cover. How has the agency determined that hiding cover are too high in this winter range? What are the objectives for hiding and thermal cover which are the target for management intervention?

The proposed action is very extensive for conclusions that it will not significantly change and degrade conditions for wildlife. It is not clear how this was determined. The EA lacks some important information, such as what species of shrubs are going to be slashed and burned. Why aren't these shrubs being used by wildlife?

Overall, this EA is a huge violation of the NEPA because the public is provided essentially no information as to why

this project will benefit wildlife. At a minimum, the agency needs to demonstrate to the public that this is in fact the case. The EA also did not provide any information as to how the resource specialists determined that the project will not lead to any significant effects on wildlife. These conclusions need to be documented for the public, including criteria that were used and evaluated to measure levels of significant impact. As just one question, if the Forest Plan standard to manage this area to promote big game species on their winter range is not being followed, this would most likely trigger significant impacts. It seems like that this is an intentional Forest Plan violation to promote livestock grazing over wildlife in this landscape. Juniper removal has been a long- standing practice to promote livestock grazing, not wildlife. The EA did not discuss the current grazing use of this area by livestock. This information needs to be included as important information to the public.

Finally, the EA is a violation of the NEPA because the fact that these activities are being planned in the IRAs without and analysis of the impact of the project on wilderness characteristics is never specifically noted in the notice.

Remedy

Choose the No Action Alternative or withdraw the Draft Decision Notice and FONSIA and write an EIS that fully complies with the law.

Thank you for your time and consideration of our concerns.

Sincerely yours,

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And for

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And for

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