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Jennifer Abernathy
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Lookout Mountain Ranger District
Ochoco National Forest
3160 NE 3rd Street Prineville, Oregon 97754

Re: Mill Creek Dry Forest Restoration Project, Draft Environmental Assessment Comment

Dear Ms. Abernathy and Staff at the Ochoco National Forest,

Thank you for the opportunity to comment on the Mill Creek Dry Forest Restoration Project (“Project”). These comments respond to the Draft Environmental Assessment and associated specialist reports, (together, “Draft EA”) posted at <https://www.fs.usda.gov/project/?project=58081> on August 14, 2023, with legal notice posted in the Bend Bulletin on August 16, 2023.¹

Central Oregon LandWatch (“LandWatch”) is a conservation organization which has advocated for preservation of natural resources in Central Oregon for over 30 years. With over 750 members in Central Oregon, LandWatch has a long history of protecting the forests and streams in and around the Lookout Mountain Ranger District. LandWatch’s members and supporters live in Central Oregon, including on lands adjoining the Lookout Mountain Ranger District, and recreate in the District. They hunt, fish, take photographs, view wildlife, hike, drive, and engage in other recreational activities in the District, generally, and in the Mill Creek Project area specifically.

LandWatch appreciates all of the work and care that went into preparing the Draft EA. With that said, we have certain concerns, which are raised in the following sections. We hope our concerns are addressed in the Final EA, resulting in a Project that best serves the many needs of the forest and its users for generations to come.

Update the Project’s Purpose and Need

The Draft EA states the Project’s purpose and need is to: increase resilience to insects, disease, fire and drought, to enhance and restore stream channels and riparian areas, to supply timber and wood products,

¹ LandWatch was able to download the various Specialist Reports that were available on the Project’s webpage August 14, 2023, but we noticed these reports have since been removed from the webpage. While LandWatch was able to base its comments on the full content of the Draft EA and specialist reports, other members of the public have not had the same chance to fully analyze the environmental impacts of the Project, due to the absence of these reports.



and to align road maintenance levels with the Travel Management Plan.² In practice, however, the Project seems to be almost exclusively focused on the purpose and need of supplying timber and wood products.

The Draft EA concedes that the Project's riparian areas have been heavily degraded by past forest management decisions and practices.³ Even so, the project allows for robust logging, including commercial logging, in these already degraded areas in need of restoration—directly in opposition to the Project's purpose and need. In terms of actual restoration, the Project limits this work to 21 miles of adding wood, and two miles of floodplain restoration.⁴ If the Project was to actually meet its purpose and need for restoring and enhancing stream channels and riparian areas, it must drop all commercial logging in riparian areas, keep mechanized equipment out of Riparian Habitat Conservation Areas (RHCAs), and dedicate as many miles to stream enhancement and floodplain connection as are currently proposed for logging and other riparian treatments.

Further, there is inadequate evidence, and therefore there is insufficient analysis provided, to demonstrate the Project's proposed logging treatments actually serve the purpose and need of reducing catastrophic wildfire. The findings of Rhodes et al. (2008) suggest there is only a 2-8% chance the Project's proposed logging will meet the Project's purpose and need of reducing fire risk, based on a study of past forest service treatments encountering fire.⁵ This study found that “if fire does not affect treated areas while fuels are reduced, treatment impacts on watersheds are not counterbalanced by benefits from reduction in fire impacts... in “92-98% of treated areas, fuel treatment impacts on watershed processes are not likely to be counterbalanced by a reduction in higher-severity fire.”⁶ Schoennagel (2017) made similar findings.⁷ Further, wind and drought exacerbated by climate change are the major contributing causes of fire, and thinning the back country does not reduce these factors.⁸ Several very large, high impact fires in the Oregon Cascades over the past few decades occurred during “compound extremes” where dry air and strong winds facilitated fire severity.⁹ To address these points, LandWatch asks the District to include evidence in its Final EA that the proposed treatments will actually reduce the likelihood of the anticipated fire while the treatments remain effective. If this evidence cannot be provided, then such extensive logging cannot be justified and risks an arbitrary and capricious agency action—the proposed alternatives should produce a range of alternative with significantly less logging, as there is no evidence logging will reduce risk of catastrophic fire in the Project area in a timescale when treatments remain effective.

² Mill Creek Dry Forest Restoration Project, Draft Environmental Assessment, August 2023, pages 1-2

³ Mill Creek Draft EA, pages 2-3

⁴ *Id.* at Appendix A- Page 265; Appendix B, page 326

⁵ *Fire Probability, Fuel Treatment Effectiveness and Ecological Tradeoffs in Western U.S. Public Forests*. Rhodes, Jonathan & Baker, William. (2008). *The Open Forest Science Journal*. 1. 10.2174/1874398600801010001.

⁶ *Id.*

⁷ *Adapt to increasing wildfire in western North American forests as climate changes*. Schoennagel T, et al. (2017). *Proceedings of the National Academy of Sciences Early Edition*: www.pnas.org/cgi/doi/10.1073/pnas.1617464114

⁸ *Working from the Home Outward: Lessons from California for Federal Wildfire Policy*. Compiled by Douglas Bevington, PhD, Forest Program Director, Environment Now (May 5, 2021).

⁹ *Compound Extremes Drive the Western Oregon Wildfires of September 2020*; Abatzoglou, Rupp, O'Neill Sadegh; 22 March 2021; Volume 48, Issue 8; *Geophysical Research Letters*, *Advanced Earth and Space Science*



The Final EA must rewrite the purpose and need to place more focus on restoring natural resource values aside from commercial timber harvest, include restoring and maintaining wildlife habitat and riparian areas, streams and wetlands, and restructure the Project to better meet this Purpose and Need.

The Project Proposes an Inadequate Range of Project Alternatives

The Project failed to evaluate a reasonable range of alternatives. NEPA requires the agency's environmental analysis documents to "[r]igorously explore and objectively evaluate all reasonable alternatives" to the Project.¹⁰ The agency failed in excluding an alternative that incorporates greater protections for wildlife and riparian habitats and that excludes large tree logging. LandWatch recommends that the Forest Service consider in detail an alternative with the following provisions: treatments that are greatly reduced from the 98.6% and 76% of the treatable area currently proposed, to something closer to 50% of the treatable project area, with explicit leave patches established, with **no commercial logging** in RHCAs, and with more miles of riparian restoration projects like floodplain reconnection and caging and fencing to exclude cattle from recovering riparian areas. This alternative should also use the 1994 Eastside Screens 21-inch rule, and exclude all logging of trees ≥ 21 " DBH in the project area. This alternative should also greatly limit the creation and use of temporary roads and overall close and decommission more roads.

Viable alternatives are alternatives that are feasible, meet the stated goals of the project, or are reasonably related to the purposes of the project.¹¹ The range of alternatives must also intend to find a Project alternative "that might enhance environmental quality or avoid some or all of the adverse environmental effects."¹² The Project lacks a reasonable range when there is the "existence of a viable and unexamined alternative," or when two action alternatives are deemed nearly identical.¹³

The proposed alternative we describe above represents an unexamined alternatives; it is an ecologically sound option that avoids adverse environmental effects, upholds the Forest Service's other duties to protect wildlife and aquatic habitat, and supports the Project's purpose and need to enhance and restore stream channels and riparian areas and to align road maintenance levels with the Travel Management Plan.¹⁴ It would also align with an updated Purpose and Need that places a greater emphasis on other important natural resource values, such as fish and wildlife habitat and a resilient forest with large diameter trees. The draft EA, however, does not include any combination of these alternatives. The draft

¹⁰ 40 C.F.R. § 1502.14(a); Please be explicit about which version of the CEQ's NEPA regulations are being applied. We request that you apply the spirit, if not the letter, of the 1979 version of the regulations, given the legal and regulatory uncertainty surrounding the 2020 version

¹¹ *Native Ecosystems Council v. U.S. Forest Service*, 428 F.3d 1233, 1246-47; See *W. Watersheds Project v. Abbey*, 719 F.3d at 1052 ("Feasible alternatives should be considered in detail.")

¹² 40 C.F.R. § 1500.8(a)(4).

¹³ *Western Watersheds Project v. Abbey*, 719 F.3d 1035, 1050 (9th Cir. 2013); *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 813-14 (9th Cir. 1999).

¹⁴ *Environmental Defense Fund v. Corps of Engineers*, 492 F.2d 1123, 1135 (5th Cir. 1974); *Methow Valley Citizens Council v. Regional Forester*, 833 F.2d 810 (9th Cir. 1987), rev'd on other grounds, 490 U.S. 332 (1989) (agency must consider alternative sites for a project).



EA goes further to explicitly dismiss an alternative that would reduce RHCA logging because it “would not meet the purpose and need for action and therefore was not analyzed in detail.”¹⁵

This analysis does not adequately describe how or why the purpose and need cannot be met if an alternative like LandWatch’s proposed alternative is incorporated, which removes commercial logging from RHCAs and increases restoration work like floodplain reconnection and cattle exclusion. Riparian restoration is stated as a key purpose and need of the Project—minimizing treatments in RHCAs from the expansive 2,789 acres currently proposed for logging would directly serve this goal, and a more rigorous analysis of this type of alternative is required. The draft EA further fails to explore ecologically sound options that avoid adverse environmental effects in excluding an option that reduces the overall scale of treatments across the program area (somewhere between no action and the 76% treated acres in Alt 4), and an alternative that sets a diameter limit on trees that may be logged.

Further, in the wake of *Greater Hells Canyon et al. v. Wilkes et al.* (2023), the range of alternatives should be re-analyzed as Alternatives 3 and 4 are no longer viable— this leaves a falsely limited range of alternatives to just Alternative 2.¹⁶ The Final EA must introduce a range of alternatives and include alternatives that don’t implement the Eastside Screens as opposed to just defaulting to alternative 2, and reconduct the impacts analysis when removing large diameter logging from alternatives 3 and 4, if these alternatives otherwise do not change. It would be arbitrary for the agency to consider in detail two alternatives that the agency lacks authority to implement, here alternatives 3 and 4 in their current form, at the expense of other viable alternatives.

The Draft EA is inadequate without analyzing viable unexamined alternatives, and intensely considering a more ecologically sound course of action.¹⁷ The Final EA should include and analyze LandWatch’s proposed alternative, which encourages more protection and restoration of wildlife and riparian habitat, removes all commercial logging in RHCAs, retains all large diameter trees, and more effectively addresses the Project’s dense road system.

The HRV used to justify the proposed treatment is based on incomplete and inaccurate data

LandWatch is concerned that the HRV data used to justify the amount and location of treatments and the logging of trees 21” DBH and over is based on inadequate baseline data. Under NFMA, the Forest Service must utilize the best available science, explain the conclusions it has drawn from its chosen methodology, and the reasons it considers the underlying evidence to be reliable.¹⁸ Under NEPA, the Forest Service must maintain the professional and scientific integrity of discussions and analyses, which includes ensuring the inclusion and use of accurate scientific information and a duty to address scientific

¹⁵ Mill Creek Dry Forest Restoration Project, Draft Environmental Assessment, August 2023, page 14

¹⁶ *Greater Hells Canyon et al. v. Wilkes et al.*, U.S. District Court for the District of Oregon, case No. 2:22-cv-00859 (Findings and Recommendations, August 31, 2023)

¹⁷ *Alaska Wilderness Recreation & Tourism v. Morrison*, 67 F.3d 723, 729 (9th Cir.1995); *Environmental Defense Fund v. Corps of Engineers*, 492 F.2d 1123, 1135 (5th Cir. 1974); *Methow Valley Citizens Council v. Regional Forester*, 833 F.2d 810 (9th Cir. 1987), rev’d on other grounds, 490 U.S. 332 (1989) (agency must consider alternative sites for a project).

¹⁸ 36 C.F.R. § 219.3; *Earth Island Inst. v. Carlton*, 626 F.3d 462, 470 (9th Cir. 2010).



controversy.¹⁹ A recently published study highlights ongoing concerns about the baseline model for HRV used in the Draft EA, calling into question the Project's compliance with NFMA and NEPA, as the Project may not be incorporating the best available science or addressing scientific controversies around this particular HRV model, and using HRV to inform management projects in general.

“Countering Omitted Evidence of Variable Historical Forests and Fire Regime in Western USA Dry Forests- The Low-Severity-Fire Model Rejected” by Baker et al. (2023), asserts that the predominantly used model for HRV, which supports a low severity fire model, is based on outdated assumptions, omits critical data, and is not supported by the majority of current research.²⁰ The omitted scientific data suggests a more accurate model for HRV in Western US dry forests is a mid-severity model. This means that instead of operating on the assumption that “dry forests were relatively uniform, low in tree density, and dominated by low- to moderate-severity fires,” which are the assumptions under the “low severity” model, the Project should actually use the “mixed-severity” model, which assumes that “dry forests were heterogeneous, with both low and high tree densities and a mixture of fire severities.”²¹ This study extends its analysis to the impacts of using an incorrect HRV model to justify forest management decisions, finding:

The four studies with adequate samples... showed that recent fire rotations were within or longer (413, 608, 695, 875, 1045, and 1693 years) than the historical range of 217–849 years documented by Baker, based on land-survey reconstructions, paleo-charcoal studies, and reconstructions from early aerial photographs.... This evidence shows that there is no ecological need to reduce high-severity fire through fuel reduction; doing so successfully would likely have effects similar to fire suppression, which is widely understood to have deleterious ecological effects.²²

LandWatch asks if the Draft EA’s model for HRV incorporates the most up to date science and includes the omitted data in Baker et al.’s analysis on the proper HRV model to use in dry, Western forests—the mixed-severity model. In the Project area, is the Draft EA rooted in the assumption that historic forest conditions were heterogeneous, with both low and high tree densities and a mixture of fire severities? It appears the Draft EA is not, as it states: “Stands of large trees (mainly ponderosa pine) with an open “park-like” nature were abundant historically, being maintained by frequent low intensity fires in most of the PAGs.”²³ The Project appears to be using the low severity HRV model, which is rooted in incomplete data.²⁴ At the very least, the difference in models for HRV is a scientific controversy that should be addressed and explained, and the updated methodologies described in Baker et. al should be addressed in the final EA, in addition to the ample research cited that supports frequent fire, old growth, mixed conifer

¹⁹ 40 C.F.R. § 1502.24, 40 C.F.R. § 1500.1(b), 40 C.F.R. §§ 1502.9(b), 1502.12.

²⁰ “Countering Omitted Evidence of Variable Historical Forests and Fire Regime in Western USA Dry Forests: The Low-Severity-Fire Model Rejected” *Fire* 2023, 6(4),146; <https://doi.org/10.3390/fire6040146>

²¹ *Id.*

²² *Id.*

²³ Mill Creek Dry Forest Restoration Project, Forested Vegetation Report (2022), page 10

²⁴ *Countering Omitted Evidence of Variable Historical Forests and Fire Regime in Western USA Dry Forests: The Low-Severity-Fire Model Rejected* *Fire* 2023, 6(4), 146; <https://doi.org/10.3390/fire6040146>



forests as the historic make-up of dry eastside forests of the West.²⁵ The impacts of an incomplete model for HRV would have significant consequences for the design and analysis of the Project, as estimations for logging to restore HRV and account for fire behavior would all be overstated in the analysis.

The Project uses HRV to re-establish the historic range of tree species, tree density, and forest structure, but not to re-establish other forest conditions like overall biodiversity, roads, and grazing. If HRV is to be used to return forests to their historic levels, the history cannot be viewed so narrowly as just looking at tree density, species, and structure—soils, overall biodiversity, roads, grazing, etc. must also be restored to historic ranges if this is the preferred model and strategy for designing forest management projects.

Additionally, research supports that HRV is an inappropriate tool for developing management targets and prescriptions, especially when present and future projected climates are different than the historic climate.²⁶ LandWatch therefore questions the utility of designing a project with significant logging, intended to reduce stands to modeled HRV conditions, when climate change is so significantly altering our landscapes. Our forests will continue to be altered by a warming planet, and the forest ecosystems will naturally adapt and change—further human intervention and manipulation to mimic forest structures under a past climate regime—one that no longer exists and will not exist in any near future—is ill advised. As such we are concerned the Draft EA has not met its legal duty under NEPA to adequately consider the Project’s climate impacts, and, conversely, the effects of climate change on the Project.²⁷

Overall, the Final EA should use a HRV model that reflects dry forests that were heterogeneous, with both low and high tree densities and a mixture of fire severities, that make clear there is no ecological need to reduce high-severity fire through fuel reduction. Further, in the Final EA, HRV should not so strictly determine how the Project is designed, as we need to let forests evolve and adapt to our future climate, not “restore” them to a past structure, represented by a climate regime that no longer exists. Instead, the Project should focus on actual restoration that benefits wildlife and aquatic creatures and habitats and that values large diameter and old trees.

The District should reduce the Project’s scale and intensity, and the District should complete an EIS

This Project proposes logging 98.96% of the Project area in Alternatives 2 and 3, and 76% of the project area in Alt. 4. We are calling the “project area” the 23,225 acres that do not include the Wilderness area. The Project’s inclusion of the Mill Creek Wilderness Area within the Project boundary, an area that is off limits for treatment, creates the wrong unit of analysis. The Project will concentrate all of its treatments into 23,225 acres of the 36,430 Project area acres—the impacts of such widespread treatments cannot be dismissed because of this inflated analytical scale, rather, NEPA must disclose and consider the site-

²⁵ *Id.*

²⁶ *Historic Variability: Informing Restoration Strategies, Not Prescribing Targets*, Millar, C. 2014. *Journal of Sustainable Forestry*, 33: S28–S42. <https://doi.org/10.1080/10549811.2014.887474>

²⁷ 88 FR 1196, CEQ “National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change,” <https://www.federalregister.gov/documents/2023/01/09/2023-00158/national-environmental-policy-act-guidance-on-consideration-of-greenhouse-gas-emissions-and-climate>



specific impacts to ecosystem health on the 23,225 treatable acres.²⁸ This treatment scale has dramatic impacts to wildlife and biodiversity—LandWatch urges the Forest Service to analyze an alternative that uses a much lighter touch on the treatment scale across the treatable Project acres. Further, the draft EA uses a watershed scale unit of analysis to determine the effects to Project resource indicators, which therefore includes the Mill Creek Wilderness Area.²⁹ It is one thing to reference a watershed on discussion of historic baseline conditions in the general area of a project; it is quite another to inflate a NEPA effects analysis by including a large wilderness area in the project area when no actions are planned in the wilderness area.

Further, this project requires an EIS based on the scale of treatments described above. Such widespread treatments, included the thousands of acres of treatments in RHCAs, impact an expansive host of species, including but not limited to many accipiter species, native bumble bees, Redband trout, elk, and the declining Mule Deer, and spans across their important habitat and connectivity corridors. An EA is used to “determine the significance of the environmental effects and to look at alternative means to achieve the agency’s objectives,” and is intended as a brief, faster route than an EIS when an agency believes there will be minimum environmental impacts.³⁰ An EIS, on the other hand, is necessary when it becomes clear to an agency that the project will have significant environmental effects—the Draft EA makes these significant environmental effects clear.³¹ Further, this Project is very similar to the Black Mountain Vegetation Management Project (Black Mountain), which conducted an EIS.³² Considering the Mill Creek Project has a larger scale and proposes even more logging and RHCA treatments than in Black Mountain, it seems inappropriate the Project has only conducted an EA. Due to the large project size and treatment scale, the high acreage of logging proposed in RHCAs, the range of species impacted, and the fact that a similar, less intensive project conducted an EIS, the Lookout Mountain Ranger District must also conduct an EIS, not an EA, for the Mill Creek Dry Forest Restoration Project.

The Project should not log trees over 21 inches DBH

The Final EA must confirm that the Project will not authorize the cutting of any trees over 21 inches DBH, consistent with the original 1994 Eastside Screens. Judge Hallman of the District of Oregon recently ruled that the Forest Service's 2021 Amendment to the Eastside Screens which eliminated the 21-inch rule was unlawful under NFMA, NEPA and the ESA and that the Screens Amendment should be vacated.³³ Vacatur of the Screens Amendment results in the reinstatement of the 21-inch rule as the controlling Forest Plan standard with which this project must be consistent.³⁴ This means that the Project’s Alternatives 3 and 4 are no longer viable, as they both propose logging trees 21” DBH and greater. The Final EA must amend these alternatives to drop all logging of trees 21” DBH and greater.

²⁸ See *Anderson v. Evans*, 314 F.3d 1006 (9th Cir. 2002); cf. *Pac. Coast Fed’n of Fishermen’s Ass’ns v. NMFS*, 265 F.3d 1028, 1037 (9th Cir. 2001)

²⁹ Mill Creek Dry Forest Restoration Project, Forested Vegetation Report (2022), page 19

³⁰ *A Citizen’s Guide to NEPA, Having Your Voice Heard*, Council on Environmental Quality, Executive Office of the President, January 2021; 40 CFR 1508.9 (Jan. 3, 2017); 40 CFR 1508.11 (Jan. 3, 2017)

³¹ *Id.*

³² [Black Mountain Vegetation Management Project](#) (2019), Paulina Ranger District, Ochoco National Forest, USFS USDA

³³ See *Greater Hells Canyon Council v. Wilkes*, Case No. 2:22-cv-00859-HL, ECF 97 (August 31, 2023).

³⁴ 16 U.S.C. § 1604(i).



In the Project’s final EA, the 1994 Eastside Screens is to be applied across all Project alternatives. The Draft EA states that the Eastside Screens primary purpose is “to conserve...components of the landscape – old forest abundance, wildlife habitat in late and old structural stages...”³⁵ The Project alternatives should reflect this directive—to encourage the retention and survival of old, large trees across the Project area. Further, the Eastside Screens prohibit logging trees >21’ DBH inside LOS stands. This is made clear by a 1995 interpretive memorandum from the Regional Forester, where John Lowe states:

“... the intent of the screens is to maintain, in the short-term, all features of late and old structure, whether the stand is actually LOS or not. ... For additional clarification, the screen direction under Scenario A of the wildlife standard is intended to maintain all live trees >21 inches regardless of tree species and regardless of whether a stand is LOS or not. *The existing wording in Scenario A could be erroneously interpreted to mean that large trees >21 inches "could" be cut in LOS in some instances. We regret the ambiguous wording used in writing Amendment #2. The intent of Scenario A is as stated above.*”³⁶

The Project’s Draft EA provides the Project’s definition for LOS stands:

...a minimum number of trees larger than 21 inches DBH per acre, with a minimum stand size of 5 acres. The minimum number of large tree varies from 10 to 20 trees per acres depending on the PAG.³⁷

The Project’s alternatives, therefore, cannot take trees larger than 21 inches DBH either inside of or outside of LOS under the 1994 Eastside Screens (1994), regardless of a stand’s designation as single or multi stratum as compared to the area HRV. Therefore, in this Project, because of the Eastside Screens 21-inch rule, and because the Project’s HRV basis is not sufficiently definite, Alternatives 3 and 4 are no longer viable, as they allow for the removal of trees 21” DBH and over both within and outside of LOS stands.

Additionally, in considering the overall health of our forests and the extreme lack of large and late and old structure trees (Eastside forests are comprised of only 3% trees larger than 21” DBH), the District should retain and further recruit all late, old structure trees already on the landscape—logging any precious, large diameter trees goes directly against this goal.³⁸ The benefits of retaining these trees are abundant—in an open letter on the vital importance of mature and old growth trees, signed by over 100 scientists, the experts pushed for land managers to “maximize protection of large trees of all species as well as mature and old-growth forests as the nation’s most effective “climate-smart forestry” approach,” and provide

³⁵ Mill Creek Dry Forest Restoration Project Draft EA, Page 5

³⁶ John Lowe, Nov 14, 1995, File Code: 2430, USDA Pacific NW Region; “Subject: Regional Forester Amendment #2 Implementation - Umatilla NF Trip”

³⁷ Mill Creek Dry Forest Restoration Project Draft EA, Page 16; Mill Creek Forested Vegetation Report, page 2, Table 3: Ochoco Late and Old Structure (LOS) definitions by PAG. Minimum stand size is 5 acres to be considered LOS.

³⁸ Large Trees Dominate Carbon Storage in Forests East of the Cascade Crest in the United States Pacific Northwest, Mildrexler et al. (2020) <https://doi.org/10.3389/ffgc.2020.594274>; Protect large trees for climate mitigation, biodiversity, and forest resilience, Mildrexler et al. (2022), <https://doi.org/10.1111/csp2.12944>



support that “there is no ecological reason to remove large trees of any species.”³⁹ A detailed analysis of these benefits can be found in Dr. Beverly Law’s Declaration for *Greater Hells Canyon Council v. Wilkes* (2023), which LandWatch incorporates by reference and can be found in Appendix A of this comment.⁴⁰

Additionally, the Draft EA does not include the mapped LOS of the Project area from previous Projects, such as under the Mill FEIS and ROD in 1999, and other projects such as the Hash Rock Salvage and Reforestation Project in 2001.⁴¹ The inclusion of these maps is important to establish adequate baseline data, so the public can fully understand and analyze the environmental impacts of all project alternatives, and how each alternative meets the Project purpose and need—how LOS was managed in the past impacts the cumulative impacts analysis, and in addressing how this Project’s proposed treatments in LOS would impact the Project’s purpose and need.⁴²

The District should greatly reduce logging in RHCAs

a. The Final EA must remove all commercial logging from Riparian Habitat Conservation Areas

The Project will be in violation of INFISH (1995)⁴³ standards if the alternatives conduct any commercial harvest or thinning in RHCAs. The Inland Native Fish Strategy (INFISH), which covers approximately 25 million acres of National Forest System lands, includes scientifically supported measures to protect habitat and populations of native inland fish.⁴⁴ INFISH was written for all interior native fish species and not just bull trout, and only allows commercial logging in Riparian Habitat Conservation Areas (RHCAs) in very narrow circumstances, when treatments are needed to attain Resource Management Objectives (RMOs). INFISH standards clearly specify that no activity can be done that retards attainment of these RMOs—in other words, it prohibits treatments that can potentially compromise fish habitat including impacts to shade, water temperature and sediment. All of the action alternatives that include any treatment in any portion of a designated RHCA will cause impacts to aquatic species and their habitats. This is supported by several expert opinions written for several projects across the Ochocos with similar riparian and large tree treatments, which can be found in Appendix B of LandWatch’s comment.⁴⁵

³⁹ An open letter from national & international scientists on the irreplaceable importance of large trees and mature/old-growth forests of all types to help stem the biodiversity and climate crises, Hansen et al. (2023); *Id.* citing Law et al. 2022. *Ibid.*

⁴⁰ Declaration of Dr. Beverly Law for *Greater Hells Canyon Council v. Wilkes*, Case No. 2:22-cv-00859-HL, ECF 97 (August 31, 2023).

⁴¹ Mill Creek Dry Forest Restoration Project Draft EA, page 20

⁴² 40 CFR 1508.7 “Cumulative impact” (Jan. 3, 2017)

⁴³ USDA, Forest Service. 1995. Pacific Anadromous Fisheries Habitat (PACFISH), U.S. Forest Service and U.S. Bureau of Land Management. 1994. Environmental assessment for the implementation of interim strategies for managing anadromous fish-producing watersheds in eastern Oregon, Washington, Idaho, and portions of California. Washington, DC: U.S. Department of Agriculture, Forest Service. p 68

⁴⁴ INFISH 1995; Federal Register / Vol. 60, No. 150 / Friday, August 4, 1995 / Notices 39927

⁴⁵ See the expert reports conducted by Rhodes, Stuart, and Gerdes for previous Projects across the Ochocos, included in Appendix B to our comments.



Further, the Ochoco Forest Plan (OFP) Standards and Guidelines are applied to all Forest streams, not just the tributaries where bull trout reside. The Ochoco Forest Plan's Treatment of Activity Fuels section describes desired riparian fuel treatments as:

Fuel treatment (particularly mechanical treatments) should be very limited within riparian areas. In particular, activities which reduce the shading potential or woody debris sources of the site should be avoided. Greater levels of wildfire risk are acceptable in these areas. Non-Mechanized treatments will receive preference. When mechanized treatments are necessary, they shall be carefully managed to meet the objectives of the management area.⁴⁶

Standard and Guideline TM-1 further states:

Prohibit timber harvest, including fuelwood cutting, in Riparian Habitat Conservation Areas, except as described below.

...b. Apply silvicultural practices for Riparian Habitat Conservation Areas to acquire desired vegetation characteristics where needed to attain Riparian Management Objectives. Apply silvicultural practices in a manner that does not retard attainment of Riparian Management Objectives and that avoids adverse effects on inland native fish.⁴⁷

Commercial logging in RHCAs is inappropriate even with the Project's identified Resource Protection Measures because commercial logging in RHCAs would retard attainment of Riparian Management Objectives (RMOs) and negatively affect inland native fish, such as the Redband trout. In fact, while we appreciate that the Draft EA provided Mill Creek area stream data, we note that many of the Riparian Management Objectives (RMOs) such as temperature, bank stability, pool depth and frequency and percent fines of sediment are either not fully assessed or are largely degraded on all streams in the project area, and the RMOs are largely not met.⁴⁸ Research shows that treatments and any temporary roads needed to complete these treatments will have further negative impacts on these RMOs.⁴⁹ Indeed, each proposed alternative shows a high degree of sediment deposited in streams from the temporary road systems alone (as much as 17,456 tons/year for alternative 3).⁵⁰

⁴⁶ Ochoco National Forest & Crooked River National Grassland, Ochoco Forest Plan- Land and Resource Management Plan (1989), [Chapter 4, Section 3, p 4-134](#)

⁴⁷ [Inland Native Fish Strategy](#), TM-1 (Timber Management), A-7

⁴⁸ Mill Creek Dry Forest Restoration Project Draft EA, Watershed and Fisheries Effects Analysis, Table 3a. Habitat Survey data for monitored streams within the project area, page 39

⁴⁹ *Forest riparian buffers reduce timber harvesting effects on stream temperature, but additional climate adaptation strategies are likely needed under future conditions*, Yonce, H.N., S. Saumya, J.B. Butcher, T.E. Johnson, S.H. Julius, and S.D. LeDuc (2021). *Journal of Water and Climate Change* 12 (5): 1404–1419.

<https://doi.org/10.2166/wcc.2020.031>; *Effects of fine sediment inputs from a logging road on stream insect communities: A large-scale experimental approach in a Canadian headwater stream*. Kreutzweiser, D.P., S.S. Capell, and K.P. Good (2005). *Aquatic Ecology* 39(1):55-66. DOI:10.1007/s10452-004-5066-y; *The effects of land use on environmental features and functional organization of macroinvertebrate communities in Patagonian low order streams*, Miserendino, L. and Masi, C. 2010. *Ecological Indicators*, 10(2): 311-319; *Stream and bed temperature variability in a coastal headwater catchment: influences of surface-subsurface interactions and partial-retention forest harvesting*. Guenther, S., T. Gomi, and R. Moore, R (2012). *Hydrological Processes*, 28: [1238–1249](#).

⁵⁰ Mill Creek Draft EA, Watershed and Fisheries Effects Analysis, Table 4a. GRAIP-Lite Modeled sediment data for the project area, page 39



Further, the Draft EA fails to comply with the OFPs TM-1 and with the “treatment fuels in riparian areas” philosophy with its commercial logging proposals, as the Draft EA appears to modify RHCA widths for logging without supplying an adequate explanation for the change. INFISH sets RHCA widths to provide stream shading and protect waterbodies from sediment and other ecological harms.⁵¹ These widths are accomplished through mandatory buffers around Category 1–4 waterbodies.⁵² The Draft EA, however, states that “Vegetation management activities are proposed within categories 1, 2, 3, and 4 RHCAs,” but does not confirm that the respective mandatory buffers are applied to these waterbodies. Instead, the diagrams included in the Draft EA’s Appendix A that depict “Typical RHCA Commercial Treatment Units” on different slopes, appear to modify the mandatory buffers. The Draft EA has not gone through the proper procedures to alter these buffers, and is therefore out of compliance with INFISH and the OFP. At a minimum, this lack of clarity in the Draft EA concerning the width of INFISH RHCA buffers that will be applied to the various streams in the Project area does not satisfy NEPA’s requirement for disclosure of environmental effects. The Final EA must restore the INFISH RHCA mandatory buffers around Category 1–4 waterbodies and disclose their location in the Project area and treatment implementation schedule.

Additionally, the risk of fire in riparian areas does not justify heavy logging in RHCAs. In fact, The Draft EA holds a conflicting narrative on fire risk in riparian areas. In the section of the Draft EA on current fire behavior in riparian habitat conservation areas (RHCAs), the EA states “Fire behavior is estimated to be generally **mild** in Riparian Habitat Conservation Areas (RHCAs); surface fire activity ~5 ft flame length, and ~10 ch/hr spread rates.”⁵³ Then, in a later section, the Draft EA states “The build-up of hazardous fuels in the Mill Creek Watershed and specifically, in riparian areas, will continue to alter the structure and composition of vegetation and could result in fire intensities and subsequently higher fire severities that were less present in the system historically.”⁵⁴ This second statement is seemingly at odds with the findings of the actual fire behavior in Riparian Habitat Conservation Areas. Further, as already quoted above, the Ochoco Forest Plan’s Standards and Guidelines for Treatment of Activity Fuels states: “Fuel treatment (particularly mechanical treatments) should be very limited within riparian areas... **Greater levels of wildfire risk are acceptable in these areas.**”⁵⁵

The Final EA should base treatment needs on the more specific RHCA fire behavior data, which reports mild fire behavior in the Project area RHCAs, and should overall accept greater levels of wildfire risk in this area. If it does, the extensive fuels reduction treatments proposed in RHCAs, a staggering 2,789 acres for two of the alternatives, can no longer be justified as serving the project purpose and need—they directly degrade the delicate RHCAs and retard the attainment of RMOs, and they do not serve the purpose of reducing risks of catastrophic fire, as fire behavior in RHCAs based on current conditions is mild, and the OFP allows for higher fire risk in these areas. Further, the OFP, in describing desired conditions in the MA-F15 riparian areas, states: “Where coniferous evergreens are a natural component of the ecosystem, a variety of size classes will exist to perpetuate the supply of shade and woody debris over

⁵¹ INFISH Decision Notice and FONSI (1995), Attachment A at A-5 to A-6.

⁵² *Id.*

⁵³ Mill Creek Dry Forest Restoration Project Draft EA, page 55 (emphasis added)

⁵⁴ Mill Creek Draft EA, page 173

⁵⁵ Ochoco Forest Plan- Land and Resource Management Plan (LRMP) (1989), [Chapter 4, Section 3, p 4-134](#), emphasis added



time.”⁵⁶ The Project continually targets coniferous evergreens in riparian areas despite the OFP’s desired conditions discouraging commercial logging of coniferous evergreens in RHCAs, and where the OFP calls for a variety of tree sizes to maintain both shade and woody debris over time. The final EA should remove all commercial treatments in RHCAs.⁵⁷

Further, Mill Creek is currently a Clean Water Act (CWA) Section 303(d) impaired waterway, with “impaired” parameters for E.coli, year-round dissolved oxygen, and year-round temperatures, which are three of the five parameters measured.⁵⁸ The status of Mill Creek draws into question how it is appropriate to conduct any treatments that further impact the impaired status of the Section 303(d) waterway, especially when these treatments will immediately contribute to further impairment (through reducing shade, increasing sediment delivery, etc., as will be discussed in the sections below). The Final EA needs to explicitly address each alternative’s impact on the impaired waterways in the Project area, and explain how these treatments can be justified when they not only retard RMO attainment, but also negatively influence a CWA Section 303(d) impaired waterway. The Final EA must explicitly state that the project will not result in any temperature increase for Mill Creek or any other impaired waterways, sd Mill Creek already has “impaired” temperatures. The Final EA should disclose the current temperatures and analyze the predicted changes in temperature under each alternative to determine compliance with the CWA and OFP’s standards and guidelines 4-237 and 4-240, as well as any other relevant binding OFP language pertaining to temperature.⁵⁹

The Draft EA further acknowledges the indirect, negative impacts of the Project’s logging and other treatments to aquatic species like the USFS Region 6 sensitive species Redband trout and Columbia spotted frog, stating:

All proposed treatments from the project could result in indirect effects that could negatively impact aquatic organisms. Examples of potential indirect effects are: fine sediment inputs, short term reductions in vegetative cover and shade in riparian areas, and short term increase in instream water temperature⁶⁰

While the Project proposes BMPs and PDCs to minimize these effects, it cannot promise they will eliminate the negative effects. These disturbances to aquatic species and to RMOS as a whole are outside of the intent of the Ochoco Forest Plan’s riparian area treatments and retard the attainment of RMOs; the Final EA should drop all commercial logging in RHCAs from the Project, restore INFISH RHCA mandatory buffers around category 1-4 waterbodies, and allow only hand-thinning treatments in non-commercial units, if the District can show how the non-commercial thinning will not retard attainment of RMOs.

b. The Final EA must include adequate baseline data on the location of Riparian Habitat Conservation Areas, and must adequately disclose the Project’s impacts on Riparian Habitat Conservation Areas.

LandWatch is also concerned about the lack of environmental baseline data for RHCAs in the Draft EA. The Draft EA does not include a description of the four classes of RHCAs, where the different classes of

⁵⁶ Ochoco Forest Plan- LRMP (1989), [Chapter 4, Section 2, p 4-75](#)

⁵⁷ *Id.*

⁵⁸ Oregon DEQ 2022 Integrated Report Assessment Summary, “OR_SR_1707030503_05_101791,” [Mill Creek](#)

⁵⁹ Ochoco Forest Plan- LRMP (1989), Chapter 4, Section 3- Water- Temperature, [4-237, 4-240](#)

⁶⁰ Mill Creek Draft EA, page 191



RHCA streams fall in the project area, and how treatments will impact each RHCA class. Additionally, there is no detailed analysis on how treatments will not retard attainment of Riparian Management Objectives (RMOs) in the treated RHCAs. The Wildlife Report states “RHCAs across the project area were mapped and categorized according to INFISH criteria (see Aquatics Report for more information),” but we were unable to locate this information in the Aquatics Report.⁶¹ The Draft EA’s explanation of RHCAs and compliance with INFISH criteria, and whether or not treatments retard RMOs in each class of RHCAs, was only provided in general terms, which does not meet NEPA’s “hard look” standard.⁶² The Final EA must disclose this information so adequate baseline data exists to evaluate the environmental impacts of the proposed actions.⁶³ To provide adequate baseline data, the Final EA must identify each RHCA by class, every stream crossing for all system roads (including temporary, closed, decommissioned, and user created roads), and include a map to show Forest Plan Management Areas / RHCAs juxtaposed with logging/fuels treatment units and all of the system roads (again, including temporary, closed, decommissioned, and user created roads).

c. The Final EA must provide adequate data on the Project’s impact on stream shade and temperature, and sediment and turbidity levels

In describing the baseline conditions for both sediment and turbidity data, the Draft EA states: “There is very little measured sediment data for the project area so certain assumptions must be made to assess both the existing condition of sediment delivery within the watershed and to be able to compare that with the proposed action(s). Actual direct sediment turbidity monitoring is not a component of standard habitat assessment surveys currently being used by the agency.”⁶⁴ In excluding actual collection and disclosure of sediment and turbidity in the project, the Draft EA did not collect and disclose enough information about the resources it manages, here both sediment and turbidity data, so that an adequate baseline exists to evaluate the environmental impacts of the proposed actions.⁶⁵ The Draft EA is relying on a model for sediment delivery, and not on actual direct sediment turbidity. Further, the model inappropriately assumes that vegetation and burning treatments will not have any impact on sediment delivery, stating: “It is assumed that there will be no anticipated detectable sediment delivery from the vegetation management units because of widespread use of BMPs and specific project design criteria (PDCs), and variation in the landscape roughness factors. For modeling purposes, it is assumed that all consequential sediment delivered to the stream network (besides streambank derived sediment) results from creation and usage of the road network.”⁶⁶ There is ample research addressing the impacts of vegetation treatments on sediment delivery, and any model that discounts this delivery fails to properly analyze the Project’s environmental impacts.⁶⁷ Further, if the model does not take into account all system roads, including all functionally

⁶¹ Mill Creek Dry Forest Restoration Project, Wildlife Effects Analysis, page 25

⁶² See *Neighbors of Cuddy Mountain v. U.S. Forest Serv.*, 137 F.3d 1372, 1379-80 (9th Cir. 1998). *Half Moon Bay Fishermans’ Marketing Ass’n v. Carlucci*, 857 F.2d 505, 508 (9th Cir. 1988); see also *Am. Rivers v. FERC*, 201 F.3d 1186, 1195 & n.15 (9th Cir. 2000) (noting that an accurate and complete baseline against which to compare potential effects of reasonable alternatives is “critical” to the NEPA process).

⁶³ *Id.*

⁶⁴ Mill Creek Dry Forest Restoration Project Draft EA, page 62

⁶⁵ See *Neighbors of Cuddy Mtn. v. U.S. Forest Serv.*, 137 F.3d 1372, 1379-80 (9th Cir. 1998).

⁶⁶ Mill Creek Draft EA, Watershed and Fisheries Effects Analysis, page 2

⁶⁷ *Effects of fine sediment inputs from a logging road on stream insect communities: A large-scale experimental approach in a Canadian headwater stream*. Kreutzweiser, D.P., S.S. Capell, and K.P. Good (2005). *Aquatic Ecology* 39(1):55-66. [DOI:10.1007/s10452-004-5066-y](https://doi.org/10.1007/s10452-004-5066-y); *The effects of land use on environmental features and*



open closed roads and user created roads, the Project's environmental impacts will be underestimated. This lack of actual sediment and turbidity data, in addition to using a model that only looks at sediment delivery from roads systems, fails NEPA's requirement for disclosure of baseline conditions.

The Draft EA also fails to follow the Ochoco Forest Plan's standards and guidelines for sediment and turbidity. For turbidity, the OFP standards and guideline state:

Allow no more than 10 percent cumulative increase in stream turbidity. Short term (plus or minus 50 years) deviations from this standard to accommodate emergency or other legitimate activities will comply with state requirements for notification and approval.⁶⁸

The Draft EA does not appear to discuss if the Project's impacts will comply with the maximum of 10% cumulative increase in stream turbidity, and if not, how the departure from 10% complies with state requirements for notification and approval. Further, if we look at just the annual road surface sediment delivery to the stream network under each alternative, the sediment increases (in tons/ year) from 869 to 11,143 in alternative 2, from 1,042 to 17,456 in alternative 3, and from 1,161 to 14,787 in alternative 4. These incredibly high sediment level changes, which again only account for roads, suggest high turbidity levels, but the Draft EA does not actually provide adequate data to explain compliance with the 10% OFP turbidity standards.

For temperature, the OFP requires:

Existing temperatures at or above 68 degrees Fahrenheit will not be increased. Temperatures at or below 66 degrees Fahrenheit may be raised a maximum of 2 degrees Fahrenheit. Where stream temperatures exceed 68 degrees Fahrenheit, management activities will include objectives for reducing temperatures to levels that will improve fish habitat capability⁶⁹

The OFP standard and guideline to address temperature states:

The requirements for shade along streams will generally correspond to provisions for more than 80 percent of the surface shaded. Where this cannot be attained, 100 percent of the potential for shade is the standard. Shade requirements maybe reduced in cases where management is necessary to sustain a thrifty community of shade providing species over time, e.g., in the case of local infestation or disease, or for managing for future shade in a decadent stand, but activities may not result in an increase in temperatures above the limits specified.⁷⁰

The Draft EA does not provide adequate data to support compliance with the above quantitative Forest Plan temperature and shade standards. The project acknowledges that shade is below 80%: "Observations from data collected from the early 1990s through present indicate that most of the streams within the project area were not meeting management objectives of 80% shaded surface or greater," and that all alternatives "initially may result in reducing effective shade in the short term."⁷¹ The Draft EA is

functional organization of macroinvertebrate communities in Patagonian low order streams, Miserendino, L. and Masi, C. (2010). Ecological Indicators, [10\(2\): 311-319](#).

⁶⁸ Ochoco Forest Plan- LRMP (1989), Chapter 4, Section 3, Water- Project Activities Standards and Guidelines [4-241](#)

⁶⁹ Ochoco Forest Plan- LRMP (1989), Chapter 4, Section 3- Water- Temperature, [4-237](#)

⁷⁰ Ochoco Forest Plan- LRMP (1989), Chapter 4, Section 3, Water- Temperature [4-240](#)

⁷¹ Mill Creek Draft EA, Watershed and Fisheries Effects Analysis, page 12



therefore not following the OFP 100% standard when 80% shade cannot be attained, nor is it explaining how it meets the requirement that stream temperatures are below the maximum 68 degrees Fahrenheit, since all Project alternatives reduce shade from the 100 percent potential shade standard. Instead, the Project makes a blanket statement that “Where site potential and topographic factors permit, manage riparian areas to provide the shade necessary to meet stream temperature goals.”⁷² This makes it sound like the OFP standards and guidelines provide an option to provide shade when the landscape allows—the OFP actually states that the Project is required to keep more than 80% of shade, and when this is impossible, to keep 100% of potential shade, and in very specific management scenarios, shade requirements can be reduced, but the stream temperatures cannot exceed the limits specified.⁷³ The Draft EA’s language excludes this responsibility to meet temperature thresholds if managing below the required shade percentages, and accordingly does not provide this specific information in the Draft EA.

Instead, in addressing changes in temperature, the Draft EA states: “There would be no measurable effects to stream temperature for all action alternatives in the short-term,” but it provides no data to support this conclusion. The Forest Service “must support its conclusions that a project meets the requirements of the NFMA and relevant Forest Plan with studies that the agency, in its expertise, deems reliable,” and simply stating that there would be no measurable effect fails to show the connection between supportable facts and the stated conclusion.⁷⁴ The Draft EA describes the important connection between shade and stream temperature in explaining: “Emphasis is placed on stream shade from vegetation as it is one of the primary anthropogenic effects to stream temperature in unregulated (undammed) systems.”⁷⁵ Therefore, when we actually look at the facts—which includes the proposed 2,789 acres of logging and burning in the RHCAs which reduce stream shade from vegetation—it seems impossible to conclude that this reduction in canopy and disturbance from commercial, mechanized logging in the RHCAs would have no measurable effect on stream temperatures. Regardless, the Final EA must provide adequate data to show compliance with OFP standards and guidelines.

d. The Project inappropriately excludes certain project areas from data collection, disclosure, and analysis

The Draft EA entirely excludes consideration of sediment delivery and turbidity impacts in three parts of the Project— 69.03 acres of treatments in the McKay Creek Watershed in the Project area, 196.85 acres of treatment in the Lower Ochoco Creek Watershed in the Project area, and sediment delivery from 1.28 miles of the reopening of temporary roads, also in the Lower Creek Watershed.⁷⁶ The Draft EA dismisses needing this analysis due to the “small acreage” of the treatments, and presents the acreage of treatments as a percent of the entire watershed, as opposed to a percent of the total acres of treatments in the Project. The Draft EA must specifically address significance at the local scale, as the failure to address significance in the proper context is a violation of NEPA.⁷⁷ Further, the Project’s failure to collect the data altogether results in inadequate environmental baseline data, running afoul of NEPA’s “hard look” mandate to collect and disclose information about a resource, like water and water quality, so the

⁷² Id at 28

⁷³ Ochoco Forest Plan- LRMP (1989), Chapter 4, Section 3, Water- Temperature [4-240](#)

⁷⁴ *McNair*, 537 F.3d at 994. (“The Forest Service must explain the conclusions it has drawn from its chosen methodology, and the reasons it considers the underlying evidence to be reliable.”).

⁷⁵ Mill Creek Draft EA, page 172

⁷⁶ Mill Creek Draft EA, Watershed and Fisheries Effects Analysis, page 2

⁷⁷ *Anderson v. Evans*, 371 F.3d 475, 492 (9th Cir. 2004).



Project's impact on the environment can be analyzed.⁷⁸ Further, without this information, OFP standards on temperature, sediment and turbidity cannot be analyzed—relevant law tells us that the Forest Service must comply with the OFP, regardless of whether the acreage at issue is large or small.⁷⁹ By exempting these sections of the Project from data collection and analysis, the Draft EA violates NEPA and fails to analyze compliance with the appropriate standards and guidelines in the Ochoco Forest Plan.⁸⁰

The Project should count all functionally open roads in its road density analysis for the Project area

The Project presents the same road network changes in all three alternatives—close 1.86 miles, decommission 3.26 miles, open .9 miles, reinforce road closures at 24 locations, and build temporary roads that create up to 86.23 miles of ground disturbance.⁸¹ These plans are meant to meet the Project's purpose and need to “align road maintenance levels with the Travel Management Plan.”⁸² We are supportive of all efforts to physically decommission all illegal nonsystem roads and align conditions on the ground with the Forest's adopted travel management plan. However, we do not think the currently proposed changes go far enough to accomplish these tasks.

To identify an appropriate road density throughout the forest and the Project area, the district must fully scrutinize the Project's roadwork component in accordance with the Travel Management Rule.⁸³ Specifically, the agency must demonstrate how the Project's roadwork components are consistent with the 2015 Ochoco Travel Analysis Report and the identification of the “minimum road system.”⁸⁴ There are additional requirements for road densities for Ochoco Forest Plan Standard and Guidelines, for 4-224 to maintain the lowest density road system possible, and MA-F20 Winter range and MA-F21 General Forest Winter Range, which are: “Road and trail use will be limited to one mile of open access per section from December 1 to May 1; a greater density of trail and road access will be available during the remainder of the year, up to three miles per section.”⁸⁵

To address road system alignment with the travel management plan, the District has done important and meaningful work to identify 24 locations where closed roads remain functionally open, where it will reinforce closures, in addition to closing and decommissioning a small number of roads, and opening a small number of new roads. Missing from the District's approach, though, is a true accounting of all

⁷⁸ See *Neighbors of Cuddy Mountain v. U.S. Forest Serv.*, 137 F.3d 1372, 1379-80 (9th Cir. 1998). *Half Moon Bay Fishermans' Marketing Ass'n v. Carlucci*, 857 F.2d 505, 508 (9th Cir. 1988); see also *Am. Rivers v. FERC*, 201 F.3d 1186, 1195 & n.15 (9th Cir. 2000)

⁷⁹ *Or. Natural Res. Council Fund v. Goodman*, 505 F.3d at 895

⁸⁰ Ochoco Forest Plan- LRMP (1989), Chapter 4, Section 3- Water- [4-237](#), [4-240](#), [4-241](#)

⁸¹ Mill Creek Draft EA, page 11, Table 2: Summary of Activities in Alternative 2; page 13, Table 3: Summary of Activities in Alternative 3; page 14, Table 4: Summary of Activities in Alternative 4; page 220, Table 77: Miles of temporary road construction proposed for alternatives 1, 2, 3, and 4

⁸² Mill Creek Draft EA, page 3

⁸³ [36 C.F.R. part 212](#), and Executive Orders [11644](#), [11989](#)

⁸⁴ *Ochoco National Forest & Crooked River National Grassland Forest-wide Travel Analysis Report*, USDA Forest Service 2015; *Travel Management FEIS and ROD*, USDA Forest Service, 2015

⁸⁵ Ochoco Forest Plan- LRMP (1989), Chapter 4, Section 2- MA-F20 Winter Range, [4-83](#), MA-F21 General Forest Winter Range, [4-85](#), Section 3, 4-224



functionally open roads as part of a road density analysis. To ensure compliance with the Ochoco Travel Management Plan and Winter Range road density standards and guidelines, the District must include the milage of functionally open “closed” roads, of all maintenance level roads, and all user created roads, in order to accurately account for road density in the Project area.

This is also necessary to comply with NEPA’s “hard look” mandate, as the agency must maintain inventories or otherwise collect and disclose information about the resources it manages.⁸⁶ This is done so an adequate baseline exists to evaluate the environmental impacts of a proposed action.⁸⁷ Here, that means accounting for the true density of the functional road network to provide accurate baseline data, in order to properly analyze how the Project alternatives will impact the road system, and therefore impact wildlife habitat and compliance with regulations, standards, and guidelines. Further, in the Project’s Elk Security Analysis, “motorized routes were defined as any road or motorized trail receiving use by the public regardless of maintenance level or if it was a system road or user-created route.”⁸⁸ It appears arbitrary and capricious to include all functionally open roads for the elk security analysis and not the road density analysis.⁸⁹ An analysis without all functionally open roads also appears to ignore the best available data, represented in the Elk Security Analysis.⁹⁰

Further, the Draft EA has identified 131.62 miles of Forest Service Roads maintenance level 1-5. The Great Old Broads for the Wilderness, Bitterbrush Chapter, in partnership with LandWatch, Oregon Wild and the Sierra Club, conducted road surveys on closed roads in 2021. Our survey found that of the 110 administratively closed roads we set out to survey, 31 (28%) were actually closed, 66 (60%) were open and driven, and 13 (12%) were not surveyed. We also encountered many decommissioned and user-created roads that were visibly in use in the Project area, but that we did not include in our survey. Some particularly problematic areas of use include:

- The 3370-230 road: There was clear, heavy use spanning the top of the ridge separating the Mill and McKay creek drainages and Green Mountain OHV trail, and creating problematic connections to the 3300-170 road on McKay Creek.
- The 3360 and 3380 roads: While these roads have required closures for big game winter range and use metal gates and boulders, when visited by a Broads member on January 1, 2022, there was clear evidence of well driven motorized use, and the member saw a pickup departing the 3360 road behind the closure.
- The 3360-060 road: While legally open for 1 mile, the gate closing the road after 1 mile was down on every visit—this area accesses many “closed” roads and illegal OHV trails such as in Schoolhouse Creek and across several ridge tops.
- The 3330-050 road: There is a major OHV trail that drops down into West Fork Mill Creek, and accesses numerous “closed roads” and user created OHV trails throughout the entire West Fork Mill Creek area, and facilitates very problematic traffic between West Fork Mill Creek and the Mill Creek Wilderness.

⁸⁶ See *Neighbors of Cuddy Mtn. v. U.S. Forest Serv.*, 137 F.3d 1372, 1379–80 (9th Cir. 1998).

⁸⁷ *Id.*

⁸⁸ Mill Creek Dry Forest Restoration EA, Wildlife Effects Analysis, Appendix E – Elk Security Analysis, Analysis Methods, page xx

⁸⁹ 5 U.S.C. § 706(2)(A), (D).

⁹⁰ 36 C.F.R. § 219.3 (Under NFMA, the Forest Service has an obligation to utilize the “best available science”)



This high number of functionally open “closed” roads and user created roads suggests there are numerous additional roads not counted toward the Project’s overall road density analysis. As many of the above listed issues were occurring in winter range, in important riparian areas, and adjacent to the wilderness area, the use of an accurate road density that includes all functionality open roads is critical for determining the Project’s true environmental impacts, and for compliance with the Ochoco Forest Plan winter range and transportation standards and guidelines, and compliance with the Travel Management Rule. These issues are very similar to the road density issues found in road surveys conducted for the District’s Black Mountain Project—this road survey can be found in Appendix B of LandWatch’s comment.⁹¹ Further, while it is commendable the Draft EA proposes many closure reinforcements for functionally open “closed” roads, the final EA needs to include an adequate plan for physically closing these roads, as this was clearly not accomplished in past projects. This plan must demonstrate reasonably complete mitigation measures by including an assessment of how effective mitigation can be—due to the current use of “closed” roads, there is no assumption that simply stating the roads will be closed, and using the same unsuccessful closure techniques from past projects, will actually lead to roads that stay closed.⁹² The final EA must include an assessment and discussion of how the roads will be closes, which likely needs to include plans for monitoring and enforcement.

Additionally, LandWatch remains concerned about the high number of temporary roads needed for this Project under each alternative, and the degree of disturbance from road maintenance, reconstruction, and new construction, as presented in Draft EA tables 77 and 78.⁹³ The opening and creation of temporary roads, in addition to disturbing and fragmenting habitat, significantly increases the amount of sediment delivered into streams, which, as the Draft EA concedes, “could negatively impact the amount and quality of pool habitat in the project area.”⁹⁴ LandWatch asks the District to reduce the number of temporary roads in the final EA. Reducing the amount of commercial and mechanized logging, as recommended above in our discussion of the Project purpose and need and our discussion of the inadequate range of alternatives, would achieve the added benefits of reducing the number of temporary roads needed to accomplish the project. Additionally, for all roadwork in all project alternatives, we request a detailed timeline of when these temporary roads will be closed, when the other road closures and closed road reinforcements will occur, how these closures are monitored and enforced, and how these actions will be funded and implemented. NEPA requires this information be provided for the public to comment on now, and not after a final decision on the project.⁹⁵

The Project negatively impacts special elk habitat

⁹¹ See Appendix B to this comment for: “*Surveys for Closed and Decommissioned Roads in the Ochoco National Forest Black Mountain Vegetation Management Project Area: What Did We Learn?*” Great Old Broads for the Wilderness, Bitterbrush Chapter (2020)

⁹² *S. Fork Band Council of W. Shoshone v. U.S DOI*, 588 F.3d 718, 727 (9th Cir. 2009)

⁹³ Mill Creek Draft EA, page 220, Table 77: Miles of temporary road construction proposed for Alternative 1, 2, 3 and 4., Table 78: Summary comparison of environmental effects to transportation resources.

⁹⁴ Mill Creek Draft EA, page 180, Table 61: GRAIP-Lite Modeled sediment data for the project area; page 186

⁹⁵ *N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1084–85 (9th Cir. 2011)



All alternatives presented in the Draft EA fail to properly locate and analyze the Project’s special elk habitat, such as habitat needed for rutting, wallowing and calving, and the negative impacts of the Project on this special habitat.

First, the elk numbers in the Project area are below Oregon Department of Fish and Wildlife’s (ODFW) set management levels, and the alternatives should be designed to help increase these numbers. As stated in the Draft EA, managing healthy, stable elk populations is a cooperative effort between the Forest Service and ODFW, with the Forest Service responsible for the management of habitat, and with explicit direction in the Ochoco Forest Plan for the District to “manage elk and deer habitat to meet the population objectives of the ODFW to the extent practicable.”⁹⁶ The Project falls within ODFW’s Grizzly Game Management Unit (Grizzly GMU), and the Draft EA reveals that the current elk population numbers fall below ODFW’s population management objectives (though they are within the Forest Plan objective numbers).⁹⁷ As the Forest Service is tasked with protecting habitat for elk and for maintaining MO population numbers set by ODFW to the extent practicable, there is even more onus on the District to pick a project alternative that best supports rutting, wallowing, calving, connectivity corridors, and other important elk habitat, as elk numbers are already below the level deemed appropriate by the state agency with the most up to date data. “Practicable” is defined as “capable of being put into practice or of being done or accomplished : Feasible”—presenting an alternative that adequately locates and protects special elk habitat like calving and rutting locations is feasible, and is a way for the Forest Service to uphold its duty to meet ODFW MOs for elk, per the Ochoco Forest Plan.⁹⁸

Additionally, the Draft EA fails to provide specific information about the current locations and distributions of elk calving, wallowing, and rutting sites within the Project area. Without this information the Draft EA has inadequate baseline data, and the imprecise information, paired with inadequate project resource protection measures (RPMs), makes it impossible to show the Project’s compliance with Ochoco Forest Plan Standards and Guidelines for Rocky Mountain Elk, which requires the Forest Service to: “Protect the character of elk calving sites. Minimize disturbance from human activity during calving season (approximately May 15 to June 30). Also protect wallows during rutting season (September 1 to October 15).”⁹⁹ As stated in a previous case on this same issue: “[W]ithout data identifying the location of calving sites and wallows, the Forest Service cannot meet its obligation to protect those sites or minimize disturbance to them.”¹⁰⁰ Here, the Draft EA as prepared cannot meet its obligation to protect or minimize disturbance to elk calving and wallowing habitat, and therefore cannot comply with the Ochoco Forest Plan.

For calving, the Wildlife Report states:

⁹⁶ Mill Creek Dry Forest Restoration EA, Wildlife Effects Analysis, page 24

⁹⁷ *Id.*

⁹⁸ <https://www.merriam-webster.com/dictionary/practicable>; Mill Creek Dry Forest Restoration EA, Wildlife Effects Analysis, page 24

⁹⁹ Ochoco Forest Plan- LRMP (1989), [Chapter 4, Section 3- Rocky Mountain Elk and Mule Deer 4-246](#): Protect wallows during rutting season, September 1 to October 15, Protect the character of elk calving sites; Minimize disturbance from human activity during calving season, May 15 to June 30

¹⁰⁰ *WildEarth Guardians v. Jeffries* (“Guardians”), 370 F. Supp. 3d 1208 (D. Or. 2018); *see also id.* at 1221.



Calving and fawning primarily occur in proximity to riparian areas that provide access to high quality forage, water, and cover... Identification of specific calving sites is infeasible... There is currently no peer reviewed literature describing calving and fawning habitat that is specific enough for GIS analysis, and therefore potential calving habitat has not been mapped for the project area.¹⁰¹

The draft EA instead approximates “areas within the project area that have the highest likelihood of providing habitat features important to calving elk.”¹⁰²

Additionally, the draft EA does not provide specific information on elk rutting habitat, stating:

Wallows primarily occur near water in proximity to riparian areas or where moist, soft ground can be found. Numerous areas have been identified across the project area that are more likely to support wallows such as springs, seeps, bogs, and other wet areas. However, identification of specific wallows is not feasible because like the calving areas, they may change from year to year based on seasonal fluctuations in forage or availability of water.¹⁰³

Like with calving, the draft EA approximates where wallows will be, stating: “...while these areas may have suitable habitat components they are not necessarily utilized by elk for wallowing, however these locations represent the best-known estimate of areas within the Mill Creek project that contain important habitat attributes to wallowing elk.”¹⁰⁴

This general analysis of calving, rutting, and wallowing habitat—which omits precise locations, their quality, and where locations may exist in relation to Project treatments, violates NEPA’s requirements that the agency take a “hard look” at the Project’s environmental impacts, and to guarantee that the public receives accurate information about those impacts.¹⁰⁵ This results in inadequate baseline data and prevents the Forest Service from disclosing and analyzing the Project’s direct, indirect, and cumulative impacts.¹⁰⁶

Further, the Project’s proposed Resource Protection Measures do not go far enough to protect elk special habitat as directed by the Forest Plan.¹⁰⁷ The RPMs do not adequately protect calving and rutting sites during the respective seasons. For calving, one RPM from the wildlife report “restricts” but does not prohibit project activities within calving season, and the restricted project activities only apply “within 0.25 miles of high-quality RHCAs or other identified areas during elk calving season,” and can be waived

¹⁰¹ Mill Creek Draft EA, Wildlife Effects Analysis, page 25

¹⁰² *Id.*

¹⁰³ Mill Creek Dry Forest Restoration EA, Wildlife Effects Analysis, page 26

¹⁰⁴ *Id.*

¹⁰⁵ *N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1083 (9th Cir. 2011); *Idaho Sporting Cong. v. Thomas*, 137 F.3d 1146, 1151 (9th Cir. 1998); 40 C.F.R. § 1500.1(b).

¹⁰⁶ *Guardians*, 370 F. Supp. 3d at 1240 (citing *Klamath Siskiyou Wildlands Ctr. v. U.S. BLM*, 387 F.3d 989, 994–96 (9th Cir. 2004)); see also 40 C.F.R. § 1502.22, 40 CFR 1508.7 “Cumulative impact”

¹⁰⁷ Ochoco Forest Plan- LRMP (1989), [Chapter 4, Section 3- Rocky Mountain Elk and Mule Deer 4-246](#): Protect wallows during rutting season, September 1 to October 15; Protect the character of elk calving sites; Minimize disturbance from human activity during calving season, May 15 to June 30



“with approval of District Ranger, in a particular year if surveys determine calving elk are not present.”¹⁰⁸ The .25 miles is further condition as “Units within 0.25 miles of riparian habitats which have *low potential for human disturbance to elk*.”¹⁰⁹ The RPM listed in Appendix A of the Draft EA rely on post-analysis surveys for protections to apply.¹¹⁰ The promise to protect habitat based on the application of post-decisional surveys is inadequate to satisfy NEPA requirements.¹¹¹ Overall, the Draft EAs conditional RPMs, untethered from specific locations within the project area, fails to comply with the Ochoco Forest Plan Standards and Guidelines for Rocky Mountain Elk.¹¹²

Further, the Draft EA inadequately analyzes how current cattle allotments impact special elk habitats, including at specific locations for calving and rutting in the Project area. Most of the Project is within the 58,857 acres of the Mill Creek Allotment Management Plan’s grazing allotments, and the Wildlife Report addresses that “livestock grazing may be present within portions of the project during rutting season and may impact use of the project area by elk, thus reducing the utility of some wallows.”¹¹³ For calving season, the Draft EA concedes:

The use of high-quality calving and fawning habitat may also be impacted by the presence of livestock within the project area as livestock may be present during calving season and social avoidance of livestock by big game is well documented. These factors would further reduce the total amount of available high quality, undisturbed, and/or secure parturition habitat within the project area.¹¹⁴

There should be a specific analysis on when and where cattle allotments interact with specific elk calving and rutting sites, as this has a direct impact on elks’ ability to effectively use this habitat, and the specifics on how elk are impacted by the Project alternatives.¹¹⁵ Not accounting for the impacts of grazing on resources in the project area runs afoul of NEPA’s requirement to analyze the cumulative impacts of the proposed and other agency actions in the Project area, and on elk special habitats. To meet the “hard look” standards, the Final EA must provide some quantified or detailed information on the impacts of grazing in this project area and to these special habitats.¹¹⁶

¹⁰⁸ Mill Creek Dry Forest Restoration EA, Wildlife Effects Analysis, page 58

¹⁰⁹ *Id.*, (emphasis added)

¹¹⁰ Mill Creek Draft EA, Draft EA, page 278, Appendix A, Calving: Wildlife Resource Protection Measures: W-13

¹¹¹ *Guardians*, 370 F. Supp. 3d at 1240 (“the Forest Service cannot rely on future monitoring of calving sites and wallows, because data must be available during the EIS process and available for public comment.”) (citing *N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1084–85 (9th Cir. 2011)).

¹¹² Ochoco Forest Plan- LRMP (1989), [Chapter 4, Section 3- Rocky Mountain Elk and Mule Deer 4-246](#); Protect wallows during rutting season, September 1 to October 15; Protect the character of elk calving sites; Minimize disturbance from human activity during calving season, May 15 to June 30

¹¹³ Mill Creek Dry Forest Restoration EA, Wildlife Effects Analysis, page 30

¹¹⁴ Mill Creek Draft EA, page 121

¹¹⁵ Mill Creek Dry Forest Restoration EA, Wildlife Effects Analysis, page 30 (“In addition, livestock grazing may be present within portions of the project during rutting season and may impact use of the project area by elk, thus reducing the utility of some wallows”)

¹¹⁶ *Cuddy Mtn.*, 137 F.3d at 138; *Or. Nat. Res. Council Fund v. Brong*, 492 F.3d 1120, 1134–35 (9th Cir. 2007); *Klamath-Siskiyou Wildlands Ctr. v. U.S. BLM*, 387 F.3d 989, 993–94 (9th Cir. 2004); *Kern v. U.S. BLM*, 284 F.3d 1062, 1075–79 (9th Cir. 2002); 40 CFR 1508.7 “Cumulative impact” (Jan. 3, 2017)



The Draft EA also uses an inaccurate analysis scale for its elk security analysis. The draft EA states that “Much of the elk security habitat within the Mill Creek project area lies within the Mill Creek Wilderness in the northeastern corner of the watershed.”¹¹⁷ The Mill Creek Wilderness area should be excluded from the elk habitat security analysis. The wilderness area is Congressionally and administratively protected from treatments, and its inclusion improperly dilutes the analytical scale, by inflating the Project’s scale of analysis as to marginalize the treatments’ site-specific ecosystem impacts on elk habitat in the remaining project area.¹¹⁸ That said, LandWatch greatly appreciates the inclusion of all roads, including all maintenance levels and user related roads, in the elk security analysis.¹¹⁹ LandWatch thanks the IDT that conducted this analysis. Landwatch additionally believes the final EA should include a timeline of when temporary roads are closed, and when the Forest Service will reinforce road closures at the 24 Project-identified road locations, and how the conclusions of the habitat analysis are impacted based on the rollout of these temporary road and enforced closed road closures. Elk security is only improved if the Project has an adequate plan for physically closing the functionally open roads, which includes providing the timing, funding, and plans to monitor and enforce the closures.¹²⁰ The Draft EA road closures seek to “reinforce road closures that are breached or add new physical closures where there had not been one previously,” demonstrating the failure to monitor and enforce closures from past projects.¹²¹ The final EA must include specific plans on timing of closures and plans for monitoring and enforcing closures, to ensure an accurate elk security analysis has been conducted for the Project.

The Draft EA also uses inadequate data for an elk habitat analysis—as acknowledged in the Draft EA, the HEI methodology is outdated and does not use the last 20 years of best available science.¹²² Further, it is unclear based on the data in the Draft EA and Wildlife Specialist Report how the HEI numbers were derived—with so many treatments and decreases in canopy cover, it’s unclear to Landwatch how the HEI improves with Project implementation. The agency must “explain the conclusions it has drawn from its chosen methodology, and the reasons it considers the underlying evidence to be reliable.”¹²³ Landwatch asks that the Final EA provide the data, and the reasons it believes this data is reliable, that arrives at such high HEIs (for example, if road density reduction is the stated reason for HEI improvement, LandWatch asks that this data is included in the Final EA, with an explanation of its reliability).

The Project negatively impacts multiple species’ habitats

a. Mule Deer

¹¹⁷ Mill Creek Dry Forest Restoration EA, Wildlife Effects Analysis, Appendix E, page xx- Existing Conditions

¹¹⁸ See *Anderson v. Evans*, 314 F.3d 1006 (9th Cir. 2002); cf. *Pac. Coast Fed’n of Fishermen’s Ass’ns v. NMFS*, 265 F.3d 1028, 1037 (9th Cir. 2001)

¹¹⁹ Mill Creek Dry Forest Restoration EA, Wildlife Effects Analysis, Appendix E, page xx – Elk Security Analysis, Analysis Methods

¹²⁰ See, e.g., *S. Fork Band Council of W. Shoshone v. U.S DOI*, 588 F.3d 718, 727 (9th Cir. 2009)

¹²¹ Mill Creek Draft EA, page 15

¹²² Mill Creek Dry Forest Restoration EA, Wildlife Effects Analysis, page 27

¹²³ *Earth Island Inst. v. Carlton*, 626 F.3d 462, 470 (9th Cir. 2010)



The Project falls within ODFW's Grizzly Game Management Unit (Grizzly GMU). The Draft EA acknowledges the decline of mule within the Grizzly GMU.¹²⁴ The current ODFW Management Objectives (MOs) numbers are a population of 8,500 mule deer; the current population numbers are below these MOs, while they are within the Forest Plan standards.¹²⁵ As explained in the above section, managing healthy, stable mule deer populations is a cooperative effort between the Forest Service and ODFW, with the Forest Service responsible for the management of habitat, and with explicit direction in the Ochoco Forest Plan for the District to “manage elk and deer habitat to meet the population objectives of the ODFW to the extent practicable.”¹²⁶ In 2023, the Grizzly Unit population is 4,292 individuals, or 50.5% of ODFW's set management objective population.¹²⁷ While improving mule deer habitat is not a stated project purpose and need, managing habitat for mule deer to meet ODFW's MOs to the extent practicable is a FS obligation under the OFP—the scale of this project, in winter range and in connectivity corridors, seems to be in opposition of this commitment to improve this 50% shortage of mule deer population numbers to the extent practicable. There are 5,928 acres of winter range in the Project area, and the below table summarizes the extent of treatments proposed in winter range.

	Proposed management activity in Winter Range (MA-F20)(acres)¹²⁸				Total MA-F20 Acres
	CT	NCT	BM	RX	
Alternative 2	1,750	1,534	0	2,643	5,928
Alternative 3	2,510	1,043	146	2,230	5,928
Alternative 4	1,808	1,054	237	1,619	5,928

The draft EA states that the emphasis for the above winter range treatments is timber production.¹²⁹ The Ochoco Forest Plan, however, says the emphasis in MA-F20 is to “manage for big game winter range habitat,” and states that:

Big game use on winter range from December 1 to May 1 will be the primary activity, with other management activities and human intervention restricted... Treatment units will be identified; treatments will be prescribed on a scheduled basis to maintain key forage and browse species. Treatments will be monitored to assure appropriate forage and browse allocations for big game. Livestock use of forage is planned, but will be conducted in harmony with big game winter range habitat needs.¹³⁰

The Project's proposed treatments in Winter Range MA-F20 seem directly at odds with the emphasis and desired conditions of winter range in the Ochoco Forest Plan, and the Final EA should reflect a reduction in treatments in winter range. Further, the Draft EA fails to provide an explanation and analysis of how winter range is protected December 1 to May 1, and how cattle grazing is managed in winter range to

¹²⁴ Mill Creek Dry Forest Restoration EA, Wildlife Effects Analysis, page 24

¹²⁵ *Id.*

¹²⁶ Mill Creek Dry Forest Restoration EA, Wildlife Effects Analysis, page 24

¹²⁷ [ODFW Mule Deer population estimates, herd composition, and over-winter fawn survival in Oregon 2019 - 2023](#)

¹²⁸ Draft Creek Draft EA, pages 208-209

¹²⁹ Mill Creek Draft EA, page 208

¹³⁰ Ochoco Forest Plan- LRMP (1989), Chapter 4, Section 2, MAF-20 Winter Range, page [4-83](#)



protect big game needs. Finally, if the Forest Service was to reduce the scale of treatment, while perhaps not improving mule deer populations outright, the Forest Service would come closer to improving population numbers to the extent practicable. The Final EA should drop commercial logging units in big game winter range, and should make explicit that no treatments, and especially commercial/ mechanized logging, will occur December 1 to May 1.

b. Western bumble bee and Morrisoni bumble bee

The Project also fails to adequately analyze how the Project alternatives impact the sensitive species of western bumble bee and Morrisoni bumble bee, as the impacts of grazing are not sufficiently addressed. The Draft EA states:

Cattle grazing as authorized by the Marks Creek, Mill Creek, and Bear Creek AMPs is ongoing within the cumulative effects boundary with the exception of a few exclosures. Grazing animals can decrease flower and seed production, directly consuming reproductive structures, or indirectly by stressing the plant and reducing energy available to develop seeds... The continued implementation of livestock grazing in the subwatersheds is likely reducing the abundance and quality of habitat for this [bumble bee] species.¹³¹

Even with these noted negative impacts, the environmental impacts analysis does not include site specific locations, or an explanation of how these sites are impacted by grazing. It seems unlikely the Draft EA can conclude that treatments would have a beneficial impact on the bumble bees in the mid to long term, when the negative impacts of grazing have not been explained, quantified, or remedied.

c. Gray Wolf

The gray wolf is an endangered species with known dispersal habitat in the project area. The Draft EA summarizes the impacts to gray wolves as:

This species is currently known to utilize the analysis area as dispersal habitat... Proposed project activities such as commercial harvest, prescribed fire, etc. are included activities within dispersal habitat in the 2020 gray wolf programmatic BA. Potential exists for prey species to be impacted by project activities.¹³²

In fact, the District has 238,000 acres of suitable gray wolf habitat, and 36,430 of these acres fall in the Mill Creek Project area.¹³³ The Draft EA does not adequately disclose and analyze the Project's treatments would impact this gray wolf dispersal habitat, and how this impacts the landscape as viable dispersal habitat. Instead, the Draft EA concludes there is "no effect" to the gray wolf.¹³⁴

¹³¹ Mill Creek Dry Forest Restoration EA, Wildlife Effects Analysis, page 13

¹³² Mill Creek Dry Forest Restoration EA, Wildlife Effects Analysis, Table 3. Threatened, endangered, proposed, and sensitive species for the Ochoco National Forest and Crooked River National Grassland: occurrence within the project area and consideration of potential for impact, page 4

¹³³ Mill Creek Draft EA, Wildlife Effects Analysis, page 6

¹³⁴ Mill Creek Draft EA, Wildlife Effects Analysis, page 48



The Draft EA uses the following criteria to analyze how the Project impacts gray wolf dispersal habitat: “1) human use, 2) barriers to movement, and 3) prey availability. In addition, the duration and exposure to potential effects were evaluated.” The Final EA should include more information about how the scale and intensity of treatments during different implementation periods would impact wolf dispersal and use of any connectivity corridors (the locations of which should be included and documented in the Final EA), outside of the short durations captured by the wolf collaring data, as the Report itself addresses that the collar data is an incomplete picture of wolves’ presence on the landscape.

d. Pileated Woodpecker

A significant amount of logging, including commercial logging, is proposed in pileated woodpecker habitat, a Region 6 sensitive species. All three alternatives propose heavy logging, with alternatives 2 and 3 treating 61% of the pileated woodpecker habitat in the Project area, and alternative 4 treating 48%.¹³⁵ Alternative 4 proposes commercially logging 2,856 acres of pileated woodpecker habitat, alternative 2 would commercially log 2,852 acres, and alternative 3 would commercially log a staggering 3,336 acres.¹³⁶ Prescribed burning would overlap both the commercial and non-commercial logging, and for alternatives 2 and 3 would be applied in otherwise protected Old-Growth Management Areas (OGMAs) and supplemental feeding areas (PFAs).¹³⁷ The Draft EA concedes that these treatments will directly impact the pileated woodpecker: “Commercial treatment would reduce the suitability of these stands for nesting and foraging immediately after treatment due to reduced stand densities and complexity,” and would “alter or remove potential pileated woodpecker nesting, roosting and foraging snags.”¹³⁸ Nesting and foraging are critically needed habitat functions, and these impacts would last into the mid to short term for all alternatives.¹³⁹

Alternative 4 is able to propose a scenario where “The leave areas are dispersed throughout the project area and would continue to provide clumps of dense forest habitat in their existing state in the short- to mid-term and may provide additional areas of nesting and/or foraging habitat as the surrounding treated acres are opened up,” and additionally does not underburn in Old-Growth Management Areas (OGMAs) and supplemental feeding areas (PFAs).¹⁴⁰ If Alternative 4 is designed to meet the Project’s purpose and need, it is unclear why alternatives 2 and 3 cannot provide the same habitat protections—if these treatments are not needed for fuels for one alternative, it seems hard to justify their need for the other two alternatives. The Final EA should reduce the amount of commercial logging in pileated woodpecker habitats, to whatever level is necessary to not have mid to long term impacts on nesting, roosting, and foraging habitat. Furthermore, in the Final EA, all alternatives should incorporate the leave patches from Alternative 4, along with an explicit design and implementation schedule for these patches, to better assess the Project’s impact on the pileated woodpecker.

Further, trees 21” and greater are identified as essential habitat components for nesting and foraging.¹⁴¹ The impact on the pileated woodpecker is the unfortunate example of what happens with a project Purpose and Need skewed so heavily toward commercial timber harvest and large diameter logging—the

¹³⁵ Mill Creek Draft EA, Wildlife Effects Analysis, Table 11- Acres of treatment by type in potential woodpecker habitat by alternative, page 21

¹³⁶ *Id.*

¹³⁷ *Id.*

¹³⁸ *Id.* at 21, 24

¹³⁹ *Id.* at 21-23

¹⁴⁰ *Id.* at 21-22

¹⁴¹ Mill Creek Draft EA, Wildlife Effects Analysis, page 21



habitat of a sensitive species is heavily altered, as wildlife and habitat focused natural resources are not appropriately factored into the Project's purpose and need.

Additionally, The Draft EA's cumulative effects section, detailing the cumulative impacts of treatments on pileated woodpecker habitat, presents the impact on the forest scale, as opposed to providing a Project-specific habitat analysis. In speaking about habitat outside of OGMA's and PFAs, the Draft EA states: "suitable habitat that falls outside of these designated habitats has the *potential to be reduced, though habitat for this species would be expected to persist on the landscape.*"¹⁴² The Wildlife's report Figure A-2 shows the cumulative effects spatial boundary used for the woodpecker (and several other species in the Project Area), which is over four times the size of the Project area itself.¹⁴³ Figure A-1 uses a slightly smaller (but still much larger than the Project area) spatial boundary for cumulative effects for just some of the wildlife analyses, such as bumble bees and elk, stating "In addition to bumble bees, cumulative effects for Core Habitat and Elk Security were analyzed at this spatial scale *to not dilute effects.*"¹⁴⁴ Figure A-1, therefore, introduces itself the issue of diluting a Project's cumulative environmental effects if using too large of a spatial boundary. In order to conduct a meaningful environmental impacts analysis, the final EA must look at the Project's impact to pileated woodpecker habitat on the project-level scale, not the forest-wide scale or the larger spatial boundary proposed in Figure A-2.¹⁴⁵

e. Adequate leave patches and protected connectivity corridors

Through its Resource Protection Measures (RPMs), the project proposes to "Retain patches of cover and provide for diversity of wildlife habitats in a mosaic pattern within treated units" for "select commercial and non-commercial harvest units."¹⁴⁶ This is not enough information for the public to view and understand how the Project will provide meaningful protection for wildlife, especially as such aggressive proposed logging is occurring across almost 100% of the treatable landscape. The Final EA must provide more information on the location and size of these patches, and how it corresponds to the different habitat needs of the many species impacted in the Project area, and how the leave patches support wildlife during the various implementation stages of the Project.

Further, the Project is overall silent on the alternatives impacts to any wildlife connectivity corridors outside of impacts to the Northern goshawk, which has specific connectivity requirements described in the Wildlife Standard of the Regional Forester's Forest Plan Amendment #2 (Eastside Screens). The Final EA must address other connectivity corridors in the Project area, and how the Project impacts these corridors. An example of this could be the corridor between big game summer and winter range in the Project area, and how each alternative's implementation would impact big games movements in this corridor. The Final EA should incorporate this information for every species it analyzes.

The Project does not adequately account for its impacts on carbon release and climate change

¹⁴² Mill Creek Draft EA, Wildlife Effects Analysis, page 23

¹⁴³ Mill Creek Draft EA, Wildlife Effects Analysis, Appendix A- Cumulative Effects Spatial Bounding for the Wildlife Resource, Figure A-2, page ii

¹⁴⁴ *Id.* at Appendix A- Figure A-1, page i

¹⁴⁵ *CBD v. USFS*, Case 9:22-cv-00114-DWM Filed 08/17/23 (D. Mont.)

¹⁴⁶ Mill Creek Draft EA, Wildlife Effects Analysis, page 56



The Project fails to adequately address the Project's carbon emissions impacts—a general explanation of the Project's emissions does not satisfy NEPA's hard look standard.¹⁴⁷ The Final EA must specifically address significance at the local scale, and several court decisions hold that the failure to address significance in the proper context is a violation of NEPA.¹⁴⁸ The Final EA, per NEPA, must also present more than a statement of platitudes—the public must be able to see and understand the actual impacts of an individual project.¹⁴⁹ Specifically, the USFS is required to determine "the extent to which this particular project's [carbon emissions] will add to the severe impacts of climate change."¹⁵⁰ The Project's analysis does not meet the rigor of the standards above. Instead, it states:

Considering emissions of GHG in 2010 was estimated at 49 ± 4.5 gigatonnes¹⁰ globally (IPCC 2014) and 6.9 gigatonnes nationally (US EPA, 2015), a project of this magnitude makes an *infinitesimal* contribution to overall emissions. Therefore, *at the global and national scales*, this proposed action's direct and indirect contribution to greenhouse gasses and climate change would be negligible. In addition, because the direct and indirect effects would be negligible, the proposed action's contribution to cumulative effects on global greenhouse gasses and climate change would also be negligible.¹⁵¹

As noted, no actual analysis of the Project's impacts to emissions is provided, and it relies on a national and global scale, not a site-specific scale, to dilute the impacts of Project emissions. *CBD v. USFS* explicitly states: "USFS has the responsibility to give the public an accurate picture of what impacts a project may have, no matter how "infinitesimal" they believe they may be."¹⁵² Here, the Draft EA has failed to provide that accurate picture. LandWatch asks that a site-specific scale of analysis of the Project's carbon emissions and their impacts are provided in the Final EA.

LandWatch is also concerned that some of the research relied on in the Carbon and Climate Change section does not adequately address the scientific controversy that apparently surrounds this topic, as there are studies that draw opposite conclusions than the papers cited in the Draft EA. For example, the Draft EA states that "The release of carbon associated with this project is justified given the overall change in condition increases forest resistance to release of much greater quantities of carbon from wildfire, drought, insects/disease, or a combination of these disturbance types (Millar et al. 2007)."¹⁵³ Several studies find just the opposite—that that the emissions of logging may in fact exceed the emissions that would occur if wildfire encountered the same Project area, as the amount of carbon removed is often much larger than that saved, and more area is harvested than would actually burn."¹⁵⁴ One 2018 study looked at all carbon emissions in 2001-2005, and again in 2011-2015, and found:

¹⁴⁷ *CBD v. USFS*, Case 9:22-cv-00114-DWM Filed 08/17/23 (D. Mont.)

¹⁴⁸ See, e.g., *Anderson v. Evans*, 371 F.3d 475, 492 (9th Cir. 2004).

¹⁴⁹ *CBD v. USFS*, Case 9:22-cv-00114-DWM Filed 08/17/23 (D. Mont.)

¹⁵⁰ *Id.*, citing *Montana v. Haaland*, 350 Mont., 50 F.4th at 1266

¹⁵¹ Mill Creek Draft EA page 232 (emphasis added)

¹⁵² *CBD v. USFS*, Case 9:22-cv-00114-DWM Filed 08/17/23 (D. Mont.)

¹⁵³ Mill Creek Draft EA, page 232

¹⁵⁴ *Land use strategies to mitigate climate change in carbon dense temperate forests*, Law et. al, March 19, 2018, <https://doi.org/10.1073/pnas.1720064115>, Law & Harmon 2011



...in 2001–2005, Oregon’s net wood product emissions were 32.61 million tCO₂e, and 3.7-fold wildfire emissions in the period that included the record fire year. In 2011–2015, net wood product emissions were 34.45 million tCO₂e and almost 10-fold fire emissions, mostly due to lower fire emissions. The net wood product emissions are higher than fire emissions despite carbon benefits of storage in wood products and substitution for more fossil fuel-intensive products¹⁵⁵

A recent study also found that tree mortality from fires and bark beetles “were both ~40% lower than earlier best-estimates reported by Hicke et al. (2013)”¹⁵⁶ While fire was the leading cause of emissions in California, as stated above, carbon released from fire is eclipsed by logging in Oregon and Washington, where:

Tree mortality from timber harvest was highest in Oregon and Washington and accounted for ~80% of \overline{MORT}_{H+B+F} in these states... Recent tree mortality from timber harvest far exceeded tree mortality caused by both bark beetles and fires in the Pacific Northwest, highlighting that reductions in timber harvest could help these states meet GHG emission reduction targets.”¹⁵⁷

This information is represented in the below table:

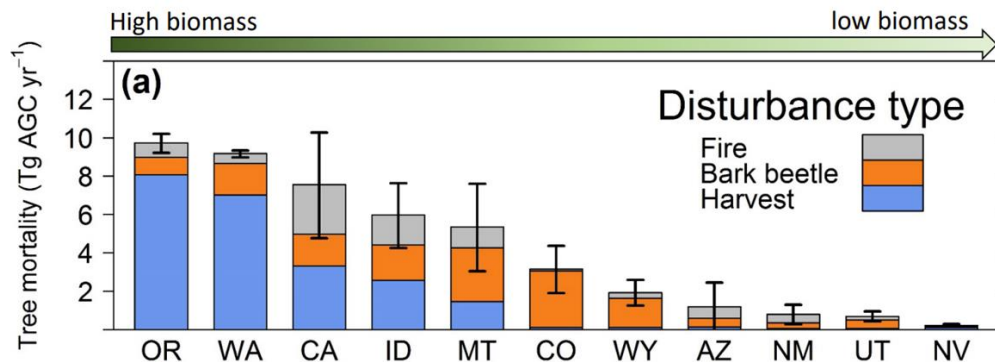


Figure 3. Mean annual tree mortality from fires, bark beetles, and timber harvest on forestland from 2003–2012 for each state in the western US. Tree mortality was quantified as the amount of aboveground carbon (AGC) stored in tree biomass killed by disturbance. (Berner et al. 2017)¹⁵⁸

An even more recent study specifically compares carbon emission from fire as compared to harvest of mature trees:

We find that forest fire carbon emissions are on average only 6% of anthropogenic FFE over the past decade. While wildfire occurrence and area burned have increased over the last three

¹⁵⁵ Law et al. (2018), <https://doi.org/10.1073/pnas.1720064115>

¹⁵⁶ *Tree mortality from fires, bark beetles, and timber harvest during a hot and dry decade in the western United States (2003–2012)*, Berner et al. (2017) [10.1088/1748-9326/aa6f94](https://doi.org/10.1088/1748-9326/aa6f94), citing *Carbon stocks of trees killed by bark beetles and wildfire in the western US*, Hicke et al. (2013)

¹⁵⁷ Berner et al. (2017) [10.1088/1748-9326/aa6f94](https://doi.org/10.1088/1748-9326/aa6f94)

¹⁵⁸ *Id.*



decades, per area fire emissions for extreme fire events are relatively constant. In contrast, harvest of mature trees releases a higher density of carbon emissions (e.g., per unit area) relative to wildfire (150–800%) because harvest causes a higher rate of tree mortality than wildfire.¹⁵⁹

The Draft EA also speaks to the Project’s ability to aid in carbon dioxide sequestration through timber management by “(1) by increasing new forests (afforestation), (2) by avoiding their damage or destruction (avoided deforestation), (3) by manipulating existing forest cover (managed forests), and (4) through transferring carbon from the live biomass to the harvested wood product carbon pool.”¹⁶⁰ The Project, however, does not increase new forests nor avoid damage to the forest—rather, it is actively participating in removing maturing trees (with up to 15,232 acres of logging and 56.1 mmbf), all of which contribute to carbon emissions and remove trees from the carbon sink.¹⁶¹ Further, the process of transferring carbon from live biomass to harvest wood products is a massively carbon intensive process. Carbon is lost at every stage—from the harvest itself, the manufacturing of products, the end of the products’ use, and decay—over the past 100 years of logging, 65% of the wood product carbon has returned to the atmosphere, and 16% has been transferred to landfills.¹⁶² The most effective way to actually contribute to carbon sequestration is to preserve trees, not log them. In Eastside forests, 3% of large trees are storing 42% of the forest’s above ground carbon—the final EA should give a full accounting of its actual emissions for each alternative, and note any large trees it removes as taking away from this carbon sink.¹⁶³

Conclusion

LandWatch thanks the Lookout Mountain Ranger District for the work that went into creating the Project’s Draft EA. We ask that the Final EA ensure compliance with all applicable desired conditions, goals, guidelines, and standards in the Ochoco Forest Plan—this includes appropriately identifying all provisions, and explaining how the proposed action and its alternatives will comply with those provisions in the final EA and decision, such as for biological diversity, forest residues, soil, etc.¹⁶⁴ We additionally ask that the Final EA incorporate the changes presented in this comment, summarized as: restructuring the purpose and need of the Project, including an adequate range of project alternatives, incorporating an updated HRV model and relying less on HRV in general, greatly reduce the project’s scale and intensity across the landscape, conduct an EIS, refrain from logging trees 21” DBH and greater, remove all commercial logging from RHCAs and improve the baseline data provided for RHCAs, exclude cattle from RHCAs, update the open road density analysis to include all functionally open roads and include plans for functionally closing all roads, better protect special elk habitats from treatments, overall better

¹⁵⁹ Forest carbon emission sources are not equal: putting fire, harvest, and fossil fuel emissions in context, Bartowitz et al. (2022), <https://doi.org/10.3389/ffgc.2022.867112>

¹⁶⁰ Mill Creek Draft EA, page 232

¹⁶¹ Mill Creek Draft EA, page 12

¹⁶² Tara W Hudiburg et al 2019 Environ. Res. Lett. [14 095005](https://doi.org/10.1073/pnas.1720064115); Law et al. (2018) <https://doi.org/10.1073/pnas.1720064115>

¹⁶³ *Large Trees Dominate Carbon Storage in Forests East of the Cascade Crest in the United States Pacific Northwest*, Mildrexler, David & Berner, Logan & Law, Beverly & Birdsey, Richard & Moomaw, William. 2020. *Frontiers in Forests and Global Change*, <https://doi.org/10.3389/ffgc.2020.594274>

¹⁶⁴ [Ochoco Forest Plan](#)- LRMP (1989), Chapter 4, 4-120, 4-121, 4-129-4-139, 4-154-159, 4-195-199, and any other standards that apply based on the Project’s alternatives





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protect wildlife habitat from treatments, appropriately account for the impacts of carbon release and climate change in the project area.

Thank you,

A handwritten signature in black ink, appearing to read "Kristen Sabo".

Kristen Sabo

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We defend and plan for Central Oregon's livable future