CENTRAL OREGON LANDWATCH

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April 30, 2024

Via Electronic Portal

Ochoco National Forest
Shane Jeffries, Forest Supervisor (Reviewing Officer)
3160 NE Third Street
Prineville, Oregon 97754
https://cara.fs2c.usda.gov/Public//CommentInput?Project=58081

Re: Mill Creek Dry Forest Restoration Project Environmental Assessment Pre-Decisional Administrative Review

Dear Reviewing Officer:

In accordance with 36 CFR 218, Subpart A and B, Central Oregon LandWatch ("LandWatch") submits the following objection regarding the Draft Decision Notice and Finding of No Significant Impact for the Mill Creek Dry Forest Restoration Project ("Project") Environmental Assessment ("EA").

LandWatch is an Oregon non-profit, public interest organization with over 700 members. Its offices are located in Bend, Oregon. LandWatch's mission is to defend and plan for Central Oregon's livable future, and it has advocated for the preservation of natural resources in Central Oregon for over 30 years. LandWatch actively participates in Forest Service proceedings and decisions concerning the management of public lands in Central Oregon. Its members and supporters live in Central Oregon, including on lands adjoining the Ochoco National Forest and Lookout Mountain Ranger District, and regularly enjoy the public lands and resources in the project area for educational, recreational, spiritual, and scientific activities.

LandWatch commends the Ochoco National Forest ("ONF") and Lookout Mountain Ranger District on several important changes that were made to the proposed project between the Draft and Final EA. Most notable of these changes are the removal of all large tree logging from the project and the reduction in

commercial logging within Riparian Habitat Conservation Areas ("RHCAs"). These changes will have significant benefits for the Project area's wildlife and biodiversity, soils, native plants, and water quality, and will retain above ground carbon stores critically important to mitigating the impacts of climate change.

Further, as the Forest Service is aware, Judge Aiken of the District of Oregon 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 vacated the Screens Amendment (with the exception of the green tree and snag guidelines). The ruling adopted Judge Hallman's Findings and Recommendation in full.[1] 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.[2] The Draft Decision is consistent with this ruling because no trees over 21 inches diameter at breast height ("DBH") will be removed (Draft DN at 2). Please carry forward to the Final Decision this important protection for large trees.

As to logging operations within RHCAs, we remind the agency of its legal obligations under the National Forest Management Act ("NFMA"), vis-à-vis Inland Native Fish Strategy ("INFISH"), the Ochoco Land and Resource Management Plan ("Forest Plan"), and the National Environmental Policy Act ("NEPA"). Several of these obligations were confirmed by the District of Oregon in *WildEarth Guardians v. Jeffries*, No. 2:17-cv-01004-SU ("Summit Trail" case) (magistrate Findings and Recommendations and Order adopting F&R except as to INFISH claim; See Attachment A). Many of these issues were litigated further in the *LandWatch v. Kovarik*, No. 2:20-cv-00648-SU ("Black Mountain" case), which resulted in a settlement restricting the scope and degree of logging operations in certain RHCAs (See Attachment B). In short, the agency must protect elk special habitats (wallows and calving areas) and comply with INFISH direction protecting RHCAs. The reduction of commercial logging as proposed in the Draft DN goes a long way toward meeting these obligations, but we flag a handful of important additional considerations below.

Overall, we appreciate the important work the Forest Service has done to improve the Mill Creek Project and preserve important ecological values. While LandWatch

[1] *See Greater Hells Canyon Council v. Wilkes*, Case No. 2:22-cv-00859-HL, ECF 104 (March 29, 2024) (Order adopting F&R), 97 (August 31, 2023)(F&R).
[2] 16 U.S.C. § 1604(i)

still has some concerns related to the Draft Decision, we look forward to working with the agency to resolve these issues during the objection resolution process. These concerns are detailed further below and relate to the proposed management of RHCAs, wildlife habitat, travel management, and restoration actions. Litigation and resolution of the Summit Trail and Black Mountain Projects collectively spanned nearly five years. We hope to put such disputes behind us and to continue working collaboratively with the agency to achieve positive ecological outcomes for the Forest.

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Objector Name and Contact Information (Address and Phone):

Central Oregon LandWatch
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541-649-2930

Name of Proposed Project:

Mill Creek Dry Forest Restoration Project

Name and Title of Responsible Official:

Slater R. Turner, Lookout Mountain District Ranger

National Forest and Ranger District:

Ochoco National Forest, Lookout Mountain Ranger District

Project Aspects and Specific Issues Addressed by the Objections:

I. Riparian Habitat Conservation Areas
   a. Commercial Logging in RHCAs

b. Non-commercial Loggin in RHCAs

II. Wildlife Habitat
   a. Wildlife Corridors and Cover
   b. Special Elk Habitat

III. Road Density and Travel Management
   a. Road Density Analysis
   b. Timeline for Road Closures
   c. Funding for Road Closures

IV. Restoration Treatments
   a. Riparian and Hardwood Restoration

Demonstration of a Connection Between Central Oregon LandWatch's Comments and its Objections:

LandWatch commented during both the Scoping and Draft EA comment periods on concerns related to this objection. Select examples from these comments are provided below.

SCOPING COMMENT EXAMPLES

"LandWatch is greatly concerned about a project of this scale. In particular, LandWatch is concerned about the significant reduction in big game security habitat caused by the commercial and non-commercial logging operations and fuels treatment activities; habitat fragmentation and soil disturbance caused by road opening and reconstruction (including for temporary roads); and degradation of riparian conditions caused by the logging operations that will not be fully mitigated by the Project's restoration components." Scoping at 1

"LandWatch requests that the Forest Service dramatically reduce the scale of the logging and roadwork Project elements and significantly increase the riparian restoration and road decommissioning elements, or drop the Project altogether." Scoping at 2

“LandWatch urges the Forest to address its objectives related to fuel reduction, species composition, and resilience by focusing on removal of only small trees, and not removal of large trees of any species.” Scoping at 3

“How will this widespread prescribed burning affect forage and over habitat for big game species? LandWatch expects that a specific fuels treatment plan will be developed for the Project, and requests that this plan be made available with the DEIS for public input.” Scoping at 5

“RHCA widths are generally 300 feet or 150 feet on either side of a stream, ephemeral stream, wetland, spring, or seep or other riparian feature designated as an RHCA. INFISH allows commercial logging in RHCAs only in a narrow circumstance when treatments are needed to attain Resource Management Objectives (RMOs).” Scoping at 5

“LandWatch opposes the construction of any new roads—including temporary—in the Project Area. Whether a new road is permanent or temporary, its adverse effects on water quality, security habitat fragmentation, and direct disturbance and displacement to wildlife are the same.” Scoping at 6

“To the extent that the Project area includes administratively “closed” roads that are still functionally open on the ground, the Forest in its DEIS analysis must inventory the mileage and density of all roads in the Project area, including functionally open but administratively “closed” roads. Further, LandWatch would like to see the Forest Service inventory roads that are “administratively closed” (pursuant to the MVUM), but functionally open (i.e., actually receiving motorized use). LandWatch would like the Forest Service to identify these roads and focus on implementing closures that will prevent motorized use—including from ATVs, motorbikes, and other off-road vehicles.” Scoping at 6

“LandWatch cautions against merely listing restoration activities without providing a fully developed restoration plan. For instance, the inwater work must be meticulously designed, phased, and scheduled in order to be successfully implemented. The DEIS must provide a robust and detailed description of the restoration plan that is spatially and temporally explicit, to ensure that the public has the opportunity to fully weigh in. As described above, LandWatch is opposed to logging, both commercial and noncommercial, in riparian areas.” Scoping at 7

“We request that the DEIS must provide specific sideboards for implementation of decommissioning activities, including timetables and funding sources. The Forest

Service frequently proposes road decommissioning as part of other projects, but the agency has a poor track record of actually following through." Scoping at 7

"In addition, because many species are adversely affected by the Project Area's high road density, LandWatch requests that the DEIS provide a thorough and detailed road density analysis (including a distance banding analysis for big game species) that includes all routes functionally open to and/or currently receiving motorized use, regardless of the routes' designation on the MVUM." Scoping at 9

"Specifically, LandWatch requests that the Forest Service evaluate an alternative that is not so heavily focused on commercial logging operations; an alternative that does not require roadwork; an alternative that does not include commercial logging, noncommercial logging, or fuels reduction treatments within RHCAs and an alternative with increased riparian restoration activities and more miles of road decommissioning." Scoping at 10

DRAFT EA COMMENT EXAMPLES

"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." DEA at 3

"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." DEA at 7

"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." DEA at 7

“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. 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.” DEA at 7

“The Final EA must remove all commercial logging from Riparian Habitat Conservation Areas.” DEA at 9

“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.” FEA at 17

“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.” FEA at 19

“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.” FEA at 24

“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.” FEA at 26

Suggested Remedies that would Solve the Objection:

LandWatch asks the U.S. Forest Service to adopt and incorporate the following changes to the proposed project.

I. Riparian Habitat Conservation Areas
- Provide the public with the specific units proposed for commercial harvest within RHCAs and the number of acres proposed for treatment within each affected unit.
- Clarify that no commercial logging will occur within category 1 and 2 RHCAs.
- Update RPM W-1 to include the percentage (e.g., 20-45%) of treated units that must be left in unthinned patches for the benefit of wildlife, and apply this direction to all units within RHCAs.
- Conduct non-commercial treatments only within RHCAs to allow the FS to leave cut trees onsite to improve large woody debris, stream characteristics, and provide a barrier to livestock.

II. Wildlife Habitat
- Update RPM W-1 to include the percentage (e.g., 20-45%) of treated units that must be left in unthinned patches for the benefit of wildlife, and specifically identify which commercial and non-commercial units this RPM applies to.
- Remove proposed temporary roads and commercial treatments from units 92, 93, 102, 117, 118, 125, 137, 146, 154, 182, 189, 195, 202, 212, 218, 241, 243, 319, 324, 324.1, 324.2, 329.1, 329.2 270, 272, 279, 276, 278.
- At a minimum, consider all 24 sites, totaling 293 acres, that the Forest Service identified as having a high likelihood of containing important calving and fawning habitat elements as special elk habitat for purposes of project implementation, and apply all applicable RPMs to these areas.
- At a minimum, consider all 88 sites that the Forest Service identified as having a high likelihood of containing important habitat elements for wallowing elk as special elk habitat for purposes of project implementation, and apply all applicable RPMs to these areas.

III. Road Density and Travel Management

- Include functionally open "closed" roads and all user created roads in the road density analysis for the Project area. Following this updated road density analysis, make appropriate changes to the Project area road network to comply with Forest Plan standards and guidelines.
- Provide an explicit timeframe for when roads and temporary roads will be closed following completion of the project and include these stipulations as contractual obligations for timber harvesting. For example, "roads will be closed 2 weeks following completion of work within a unit and before moving into new units/subdivisions."
- Provide explicit timeframes for when temporary roads will be rehabilitated and include these stipulations as contractual obligations for timber harvesting. For example, "temporary roads will be rehabilitated 2 weeks following completion of a unit and before moving into new units/subdivisions."
- Secure funding for road closure, rehabilitation and monitoring prior to project initiation

IV. Restoration Treatments

- Fence out livestock for all proposed floodplain and hardwood restoration sites.

Request for Meeting to Discuss Resolution:

LandWatch requests a meeting to discuss the issues raised in this objection and potential resolutions.

Specific Issues and Supporting Reasoning

1. Riparian Habitat Conservation Areas

LandWatch commends the Forest Service for several important changes made to the proposed project between the Draft and Final EA, including the reduction of commercial logging in RHCAs. The removal of commercial logging from 523 acres of RHCAs in the Draft Decision Notice ("DN") provides important benefits to sensitive riparian areas, wildlife habitat, and ecological processes within the Project area.

While we commend these changes to the proposed project, LandWatch flags below a handful of concerns related to the proposed actions in RHCAs and the lack of information provided in the DN.

a. Commercial Logging in RHCAs

The Forest Service must provide the public with the specific units, and acres within each unit, proposed for commercial harvest within RHCAs. 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.[3] INFISH was written for all interior native fish species and not just bull trout, and only allows commercial logging in RHCAs in very narrow circumstances and when treatments are needed to attain RMOs. INFISH standards clearly specify that no activity can be done that retards attainment of these RMOs. In other words, INFISH prohibits treatments that will potentially compromise fish habitat, including impacts to shade, water temperature and sediment.

Further, the Ochoco Forest Plan 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

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

> 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.[4]

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.[5]

By failing to provide the necessary information in the DN detailing which treatment units will have commercial harvest within RHCAs, it's not possible for the public to determine whether the Forest is in compliance with INFISH or the Forest Plan. Further, the omission of key site-specific information about the proposed commercial logging within RHCAs 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.[6] This results in inadequate baseline data and prevents the Forest Service from disclosing and analyzing the Project's direct, indirect, and cumulative impacts.[7]

The disclosure of site-specific information was the basis for the settlement in the Black Mountain case, allowing the parties to come to resolution on a unit-by-unit level. Without such information, the interested parties are limited to "two-dimensional advocacy," where they are able only to argue for more or less resource use but not for the protection of particular areas. *WildEarth Guardians v. Mont. Snowmobile Ass'n*, 790 F.3d 920, 927 (9th Cir. 2015). Please provide unit-specific

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

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

[6] *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).

[7] *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"

information as part of the Objection resolution process (and moving forward for future projects).

Further, the DN states that "[c]ommercial thinning units overlapping category 1 RHCA only occurs in situations where a road is used for a unit boundary and falls between the stream channel and the treated area upslope of the road" (DN at 3). Yet, Table DN-1 (Figure 1, below) contradicts this statement, showing that no acres of commercial logging will occur within category 1 RHCAs. The Forest Service should adhere to the proposed actions in Table DN-1, and not conduct any commercial logging within category 1 and 2 RHCAs. Please clarify this management direction in the Final Decision Notice.

Table DN-1: Acres of silvicultural activities within RHCAs by category, under Alternative 4 Modified

	RHCA Category[1]	Biomass	Commercial Thin	Non-commercial Thin	Prescribed Burning	Total
Alternative 4 Modified	1	0	0	106	680	786
	2	0	0	32	113	145
	3	2	43	95	41	181
	4	12	1	541	219	773
	Grand Total	**14**	**44**	**774**	**1053**	**1885**

[1]See Final EA page 5 for definitions of RHCA Categories.

Figure 1: Table DN-1 in the Draft Decision Notice, detailing acres of silvicultural activities within RHCAs by category under the proposed Decision

Lastly, LandWatch continues to request that all proposed activities within RHCAs be non-commercial, and that no commercial logging of trees occur within RHCAs. This will allow for trees to be left on site, dropped and placed instream, helping restore large woody debris and degraded channel morphology within the project area, as well as to prevent livestock and other ungulates from impacting streams and proposed restoration areas.

b. Non-Commercial Logging in RHCAs

The DN states that there are "approximately 4,756 acres [of RHCAs] in the Mill Creek project area. Commercial thinning will impact 44 acres (less than one percent of RHCAS in the project area); all thinning will impact 1,032 acres (about 16% of all RHCAs categories)" (DN at 9). LandWatch notes here that 1,032 acres

across 4,756 acres of RHCAs is 21.7% of all RHCA categories within the project area. Furthermore, no thinning will occur within the Mill Creek Wilderness, which constitutes 36% of the project. If the wilderness area is removed from the project area analysis—considering no treatments are proposed there—the percentage of proposed thinning within RHCAs in the project area goes up significantly.

Mechanical, ground-based logging—including non-commercial logging—at the scale proposed has the potential to significantly impact wildlife, wildlife habitat, soils, and other ecological values in RHCAs. As discussed further below in the Wildlife Habitat section of this objection, the Final EA continues to lack clarity around where, how large, and in what pattern leave patches will be retained for the benefit of wildlife. These details have significant bearing on the degree to which the proposed project will have significant adverse effects to key wildlife habitats, and their omission leaves a substantial amount of uncertainty regarding project outcomes.

Because LandWatch continues to have concerns about the combined scale of commercial and non-commercial logging within RHCAs, we request the Forest Service establish resource protection measures that describe what percentage (e.g., 20-45%) of treated units must be left in unthinned patches for the benefit of wildlife. Additionally, the Forest Service should apply this direction to all units within RHCAs given the importances of riparian areas for wildlife movement and dispersal.

SUGGESTED REMEDIES

- Provide the public with the specific units proposed for commercial harvest within RHCAs and the number of acres proposed for treatment within each affected unit.
- Clarify that no commercial logging will occur within category 1 and 2 RHCAs.
- Update RPM W-1 to include the percentage (e.g., 20-45%) of treated units that must be left in unthinned patches for the benefit of wildlife, and apply this direction to all units within RHCAs.
- Conduct non-commercial treatments only within RHCAs to allow the FS to leave cut trees onsite to improve large woody debris, stream characteristics, and provide a barrier to livestock.

2. Wildlife Habitat

LandWatch commends the Forest Service's decision to remove all logging of trees greater than 21 inches DBH from the project area, and the majority of commercial logging from RHCAs. These changes will prevent negative impacts to project area wildlife and their habitat. LandWatch also appreciates the Forest Service's recognition in the DN of the potential negative impacts of the wall-to-wall nature of the proposed treatments outside the Mill Creek Wilderness area (See DN at 3, discussing the decision's recognition of these concerns). However, the proposed scale of non-commercial and commercial logging across the non-wilderness portion of the project area continues to raise concerns, especially as it relates to wildlife.

The DN proposes 17,631 acres of treatments across the project area (See DN at 2, describing acreages of commercial logging and prescribed fire, non-commercial logging and prescribed fire, biomass and prescribed fire, and prescribed fire only). The total project area is 36,430 acres; the project area outside the Mill Creek Wilderness is 23,315 acres. While 17,631 acres of treatments equates to roughly half of the total project area, it's a staggering 75% of the non-wilderness portion of the project area. This leaves few untreated refuges for wildlife and a large amount of uncertainty around the potential impacts to thermal cover, hiding cover, and movement corridors.

While some positive changes were made to address concerns related to the scale and scope of the proposed treatments, LandWatch continues to have concerns about the wall-to-wall nature of the proposed treatments outside the Mill Creek Wilderness and its potential impact on wildlife. We hope to work with the Forest Service to resolve these concerns during the objection resolution process.

a. Wildlife Corridors and Cover

The DN, like the Draft EA, fails to provide enough information for the public to review and understand how the Project will provide meaningful protections for wildlife and wildlife habitat. For example, the Final EA continues to lack clarity around where, how much, and in what pattern, leave patches will be retained for the benefit of wildlife. As described above, roughly 75% of the Project Area

outside of the Mill Creek Wilderness is proposed for treatments. The details about how large leave patches will be, how many will be left, and in what pattern they will be distributed across the landscape, all have significant bearing on whether the proposed project will adversely affect key wildlife habitats.

In response to concerns regarding the lack of detail about the project design, the Forest Service stated in the Final EA, Appendix C:

> The lack of detail within this specific project design criterion allows for necessary flexibility as not all units are the same size, shape, nor do they offer the same habitats, and therefore units will require a somewhat individualized approach to determining the size and location of leave areas. That said, there are certain strategies employed to help determine where and what habitat is deferred from treatment, such as incorporating terrain, micro-sites, natural tree-clumping, snag concentrations, wet or otherwise unharvestable areas, etc. In general, the percentage of a unit not receiving commercial or non-commercial treatments can be anywhere from 0-40%, though the average likely ranges closer to 5-15%.

FEA at 376. While we appreciate the Forest Service's response, providing more clarity around best practices for what percentage of treated area should be left in un-thinned patches is essential, and of critical importance to mitigating negative outcomes for wildlife.

For example, Table A-3 in the Final EA, which details Resource Protection Measures ("RPM") common to all action alternatives, lists RPM W-1 as: "Retain patches of cover and provide for diversity of wildlife habitats in a mosaic pattern within treated units: Leave a portion of treatment area in un-thinned patches, except where desired conditions are in direct conflict" and that this RPM applies to "[s]elect commercial and non-commercial harvest units" (FEA at 292). Given the critical importance of this RPM to wildlife hiding and thermal cover, connectivity corridors and other habitats across the project area, we request the Forest Service update this RPM to describe what percentage (e.g., 20-45%) of treated units must be left in unthinned patches for the benefit of wildlife, and specifically identify which commercial and non-commercial units this RPM would apply to. Without this information, it's unclear to what extent this RPM will provide any benefit to wildlife.

Further, areas with few or no roads within the project area provide important security habitat and movement corridors for wildlife. Proposed commercial units within unroaded landscapes are particularly concerning given the wall-to-wall nature of proposed treatments outside the Mill Creek Wilderness. Examples of proposed commercial units that are particularly concerning include: 92, 93, 102, 117, 118, 125, 137, 146, 154, 182, 189, 195, 202, 212, 218, 241, 243, 319, 324, 324.1, 324.2, 329.1, 329.2 270, 272, 279, 276, 278. These units overlap intact, roadless areas within the project area, serve as important security habitat for wildlife, and have been identified by ODFW as both elk and/or mule deer winter range. The Forest Service should remove proposed commercial treatments and temporary road building within these units for the benefit of wildlife.

b. Special Elk Habitat

Like the Draft EA, the DN fails to properly locate and analyze the Project's special elk habitat, such as habitat needed for wallowing and calving. Given this, LandWatch incorporates our comments on the Draft EA here as part of our objection (see Attachment C). As discussed further in our comments on the Draft EA, the general analysis of calving and rutting 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.[8] This results in inadequate baseline data and prevents the Forest Service from disclosing and analyzing the Project's direct, indirect, and cumulative impacts.[9]

The FEA states that "[e]lk and mule deer use the project area throughout most of the year" and that "[c]alving and fawning primarily occur in proximity to riparian areas that provide access to high quality forage, water, and cover" (FEA at 126). In response to public comment on the Draft EA the Forest Service stated that "[t]o date there are no *known* elk calving or wallow sites within the project area" (FEA at 373). However, given that elk are known to be within the project area

[8] *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).
[9] *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"

throughout the year, an informed decision-maker can logically conclude that elk calving and wallow sites do occur within the project area.

The EA goes on to discuss the challenges of identifying special elk habitat and the apparent controversy in the scientific literature "regarding the ability to accurately identify specific calving sites" (See EA at 126).

The Forest Service does state that "areas within the project area that have the highest likelihood of providing habitat features important to calving elk can be identified" (FEA at 126) and goes on to describe the process by which Forest Service staff identified 24 sites, totally 293 acres that have "a high likelihood of containing the necessary habitat components for calving and fawning" (FEA at 127). Of these, the Forest Service considers only 8 sites, for an unknown number of acres, to "represent the best-known estimate of areas within the Mill Creek project that contain important habitat attributes to calving elk" (FEA at 127).

Given the purported debate in the scientific literature about the challenges in identifying specific calving sites, LandWatch requests the Forest Service to take a precautionary approach in identifying calving sites. While LandWatch continues to question some of the methods and process the Forest Service used in the EA to identify special elk habitat, we suggest that at a minimum, all 24 sites, totaling 293 acres, that the Forest Service identified as having a high likelihood of containing important calving and fawning habitat elements be treated as calving sites for purposes of project implementation and that all applicable RPMs be applied to the 293 acres (e.g. RPM W-13). This approach, in combination with pre-treatment surveys and limited or no commercial logging within RHCAs will provide some level of safeguards for special elk habitat and limit the potential for negative impacts.

The Forest Service analysis for wallows was similar to elk calving sites. The Forest Service identified 88 sites that contain habitat suitable for wallows, primarily "near water in proximity to riparian areas or where moist, soft ground can be found" (FEA at 127). However, through a process of elimination, ultimately the Forest Service only considers 22 sites, for an unknown number of acres, to "represent the best-known estimate of areas within the Mill Creek project that contain important habitat attributes to wallowing elk" (FEA at 127). While LandWatch continues to question some of the methods and process the Forest Service used to identify

special elk habitat, we suggest that at a minimum, all 88 sites that the Forest Service identified as having a high likelihood of containing important habitat elements for wallowing elk be treated as special elk habitat for purposes of project implementation and that all applicable RPMs be applied to the 88 sites (e.g. RPM W-14). This approach, in combination with pre-treatment surveys and limited or no commercial logging within RHCAs will provide some level of safeguards for special elk habitat and limit the potential for negative impacts.

SUGGESTED REMEDIES

- Update RPM W-1 to include the percentage (e.g., 20-45%) of treated units that must be left in unthinned patches for the benefit of wildlife, and specifically identify which commercial and non-commercial units this RPM applies to.
- Remove proposed temporary roads and commercial treatments from units 92, 93, 102, 117, 118, 125, 137, 146, 154, 182, 189, 195, 202, 212, 218, 241, 243, 319, 324, 324.1, 324.2, 329.1, 329.2 270, 272, 279, 276, 278.
- At a minimum, consider all 24 sites, totaling 293 acres, that the Forest Service identified as having a high likelihood of containing important calving and fawning habitat elements as special elk habitat for purposes of project implementation, and apply all applicable RPMs to these areas.
- At a minimum, consider all 88 sites that the Forest Service identified as having a high likelihood of containing important habitat elements for wallowing elk as special elk habitat for purposes of project implementation, and apply all applicable RPMs to these areas.

3. Road Density and Travel Management

The DN carries forward essentially the same road density and travel management analysis from the Draft EA, closing 1.86 miles, decommissioning 4.13 miles, opening .9 miles, reinforcing road closures at 26 locations, and building temporary roads that create up to 71.42 miles of ground disturbance, depending on the alternative.[10] Given this, LandWatch incorporates our comments on the Draft EA here as part of our objection (see Attachment C).

[10] Mill Creek Final EA, page 12-14; page 227.

a. Road Density Analysis

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.[11] 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.[12]

LandWatch raised this issue in our comments on the Draft EA. The Final EA purports to have addressed this comment, stating that:

> the current road system is based on risk-benefit assessment completed in the 2015 Ochoco NF Travel Analysis Report. The ID Team took a more site-specific look at the roads in the project area during planning for this project. A table of specific modifications to project area road segments has been added to Appendix A (page 289).

FEA at 397. LandWatch appreciates the important work the Forest Service has done to address road system alignment with the travel management plan, and the identification of 26 locations where closed roads remain functionally open, where the Forest Service 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 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.[13] This is done so an adequate baseline exists to evaluate the environmental impacts of a proposed action.[14] Here, that means accounting for the

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[11] 36 C.F.R. part 212, and Executive Orders 11644, 11989

[12] *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

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

[14] *Id.*

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."[15] It appears arbitrary and capricious to include all functionally open roads for the elk security analysis and not the road density analysis, especially as the road density analysis relates to Winter Range road density standards and guidelines.[16]

The Draft EA has identified 131.62 miles of Forest Service roads maintenance level 1-5 (FEA at 223). 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 in the Mill Creek project area (See Attachment D). 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.

[15] Mill Creek Dry Forest Restoration EA, Wildlife Effects Analysis, Appendix E – Elk Security Analysis, Analysis Methods, page xx
[16] 5 U.S.C. § 706(2)(A), (D).

- 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.

The high number of functionally open "closed" roads and user created roads suggests there are many additional roads not included in the Forest Service's road density analysis for the Project area. As many of the above listed issues occur in Winter Range and important riparian areas, 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's Winter Range and transportation standards and guidelines, and Travel Management Rule.

b. Timelines for Road Closures

The Final EA states that concerns about road closure timelines and funding were addressed on EA pages 224-225, stating that "Maintenance level 1 and temporary roads will be closed by the purchaser when completing a unit or set of units (EA page 225). Road closure reinforcement could occur through the Good Neighbor Authority agreement with Oregon Department of Fish and Wildlife" (FEA at 396).

While we appreciate the Forest Service's response to concerns, the response still fails to provide a specific timeline for when a road will be closed after completion of commercial thinning activities. For example, the EA should establish explicit timelines such as "roads will be closed within 2 weeks of the completion of logging." The ambiguity of requiring roads to be closed at an unspecific date following project completion does not address concerns about long lag times for physically closing roads—if they are closed at all— seen on other projects within the Ochoco National Forest.

The FEA does provide some additional specificity for temporary roads, stating that "[c]ontractually, [decommissioning] shall occur immediately after timber harvest of the associated units and not before moving into new units/subdivisions" (FEA at 228). The Forest Service should apply similar contractual obligations for all road closures, decommissioning, and rehabilitation.

For all road closures, decommissioning, and temporary road rehabilitation, LandWatch requests the Forest Service establish hard time periods for when closures will occur, such as closing roads within 2 weeks of the completion of logging, and include these stipulations as contractual obligations for timber harvesting.

c. Funding for Road Closures

While we appreciate the Forest Service's response to potential funding sources for road closures (See FEA at 396), the DN fails to provide assurances that road closures will be funded as part of Project implementation. Specifically, LandWatch is concerned that the Ochoco National Forest's current road maintenance and budget challenges will lead to the commercial aspects of the project being implemented, and road closures and other restoration actions being put off or not implemented at all. As the Ochoco Nation Forest described in the North Fork Crooked River Draft EA, "[i]n recent years, the road maintenance budget for the Ochoco NF has only allowed for routine maintenance on maintenance level 3-5 roads…Due to limited road maintenance funds, and the adverse effects to other resources as a result of reduced maintenance, current conditions do not meet desired conditions."[17] In other words, the limited budget for addressing road related issues does not currently allow the Ochoco National Forest to follow through on its obligations, including to close and decommission roads.

Prior to implementing the project, we request the Forest Service secure the necessary funding for road closures, rehabilitation, and road closure monitoring to ensure these critical project components are implemented as part of the proposed treatments. This is essential to meeting the agency's obligations under NEPA and NFMA.

SUGGESTED REMEDIES

- Include functionally open "closed" roads and all user created roads in the road density analysis for the Project area. Following this updated road density analysis, make appropriate changes to the Project area road network to comply with Forest Plan standards and guidelines.

[17] Forest Service. 2023. North Fork Crooked River Forest Resilience Project. Draft Environmental Assessment. Region 6, Ochoco National Forest. pp 167.

- Provide an explicit timeframe for when roads and temporary roads will be closed following completion of the project and include these stipulations as contractual obligations for timber harvesting. For example, "roads will be closed 2 weeks following completion of work within a unit and before moving into new units/subdivisions."
- Provide explicit timeframes for when temporary roads will be rehabilitated and include these stipulations as contractual obligations for timber harvesting. For example, "temporary roads will be rehabilitated 2 weeks following completion of a unit and before moving into new units/subdivisions."
- Secure funding for road closure, rehabilitation, and monitoring prior to project initiation.

4. Restoration Treatments

LandWatch appreciates the stream restoration efforts proposed as part of the project, as well as the removal of most commercial logging from RHCAs, a key action to prevent further degradation of these sensitive areas. However, as described in our comments on the Draft EA, additional restoration actions are needed to address widespread degradation and to improve habitat to help attain RMOs in the Project area. These concerns are further outlined in LandWatch's comments on the Draft EA, incorporated here (See Attachment C).

a. Riparian and Hardwood Restoration

LandWatch appreciates the Forest Service's proposed implementation of riparian exclosures—including those previous identified in 2010 NEPA analyses—totaling 25 acres across the 36,430-acre project area. However, to adequately address riparian degradation in the Project area, and restore floodplain connectivity, native plant communities—including hardwoods—and lower water temperatures, the Forest Service should take a more comprehensive approach to riparian restoration.

As the Forest Service notes in the Final EA, "[o]bservations have indicated that decades of little to no treatments within riparian areas that have experienced serious channel incision have not resulted in riparian habitat recovery that is effectively lowering stream temperatures" (FEA at 408). The Forest Service's Watershed and Fisheries Effects Analysis is clear that channel degradation, including incision, was primarily caused by the removal of beavers, livestock

grazing by cattle and sheep, and stream channelization and road building. The Effects Analysis goes on to say that these actions:

> took a heavy toll on riparian vegetation and thus interrupted the historic natural processes that contributes to sediment retention and stream bank building and maintenance (Dwire et al. 2016). Once stream channels deepened from this erosion, water tables dropped, and floodplains were disconnected from their channels and were invaded by drought tolerant species: sage and juniper at lower elevations and conifers in forested areas (Buckley 1992).

Watershed and Fisheries Effects Analysis Appendix E at 78. To restore riparian areas, the Forest Service should address the multiple underlying drivers of stream degradation identified in the Watershed and Fisheries Effects Analysis. For example, the Forest Service should consider additional strategies to reconnect streams to their floodplains, restore hardwood plant communities through native plantings and exclosures, and reintroduce beaver to improve water quality and plant community resilience. Importantly, this work cannot be developed and implemented in a vacuum; livestock grazing must be addressed in tandem, excluding cattle where restoration actions are implemented.

At a minimum, for all areas where the Forest Service proposes to reconnect the floodplain or restore hardwood species within the Mill Creek Project area, the Forest Service should fence out livestock and include native plantings to assist in native species recovery. This will significantly benefit riparian and native plant community restoration efforts, improve treatment efficacy, and more quickly move streams towards meeting RMOs.

SUGGESTED REMEDIES

- Fence out livestock for all proposed floodplain and hardwood restoration sites.

5. Conclusion

Once again, LandWatch commends the Ochoco National Forest and Lookout Mountain Ranger District on several important changes that were made to the proposed project between the Draft and Final EA. Most notable of these changes are the removal of all large tree logging from the project and the reduction in commercial logging within Riparian Habitat Conservation Areas. These changes will have significant benefits for the Project area's wildlife and biodiversity, soils, native plants, and water quality, and will retain above ground carbon stores critically important to mitigating the impacts of climate change.

While LandWatch still has some concerns related to the Draft Decision, we look forward to working with the agency to resolve these issues during the objection resolution process.

Sincerely,

Jeremy Austin
Wild Lands & Water Program Director
Central Oregon LandWatch
2843 NW Lolo Dr St. 200
Bend, OR 97703

Cc:

Ben Gordon, Executive Director

Central Oregon LandWatch

Attachments (as stated)

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ATTACHMENT A

WildEarth Guardians v. Jeffries, No. 2:17-cv-01004-SU

"SUMMIT TRAILS"

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF OREGON

PENDLETON DIVISION

WILDEARTH GUARDIANS, OREGON WILD, THE SIERRA CLUB, and GREAT OLD BROADS FOR WILDERNESS,

Plaintiffs,

v.

SHANE JEFFRIES, in his official capacity as Ochoco National Forest Supervisor; and UNITED STATES FOREST SERVICE,

Defendants;

Case No. 2:17-cv-01004-SU (Lead Case)

CENTRAL OREGON LANDWATCH, an Oregon nonprofit corporation,

Plaintiff,

v.

SHANE JEFFRIES, in his official capacity as Ochoco National Forest Supervisor;

Case No. 2:17-cv-01091-SU (Member Case)

JAMES M. PEÑA, in his official capacity as Regional Forester for Region 6 of the United States Forest Service; and the UNITED STATES FOREST SERVICE, a federal agency of the United States Department of Agriculture,

Defendants;

OREGON HUNTERS ASSOCIATION, an Oregon nonprofit corporation,

Case No. 2:17-cv-01366-SU (Member Case)

Plaintiff,

v.

UNITED STATES FOREST SERVICE, an agency of the United States Department of Agriculture; and SHANE JEFFRIES, Ochoco National Forest Supervisor, in his official capacity,

Defendants;

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and

OCHOCO TRAIL RIDERS, OREGON MOTORCYCLE RIDERS ASSOCIATION, PACIFIC NORTHWEST 4 WHEEL DRIVE ASSOCIATION, DESCHUTES COUNTY 4 WHEELERS, and THE BLUERIBBON COALITION,

Defendant-Intervenors.

FINDINGS AND RECOMMENDATIONS

SULLIVAN, United States Magistrate Judge:

In the above-captioned, consolidated cases, plaintiffs challenge the U.S. Forest Service's ("Forest Service") approval of the Ochoco Summit Trail System Project (the "Project") in the Ochoco National Forest (the "Forest"). The Project provides for a 137-mile network of roads and trails for off-highway vehicle ("OHV") use. The Forest Service approved the Project by a Supplemental Final Environmental Impact Statement ("SFEIS") in September 2016, and the Forest Supervisor issued a final Record of Decision ("ROD") in June 2017.

Plaintiffs are WildEarth Guardians, Oregon Wild, the Sierra Club, and Great Old Broads for Wilderness (together, "Guardians"); Central Oregon LandWatch ("LandWatch"), and Oregon Hunters Association (the "Hunters"). Defendants are the Forest Service; Shane Jeffries,[1] Forest Supervisor; and James M. Peña, Regional Forester (collectively, "federal defendants"). Ochoco Trail Riders, Oregon Motorcycle Riders Association, Pacific Northwest 4 Wheel Drive Association, Deschutes County 4 Wheelers, and the Blueribbon Coalition have intervened as defendant-intervenors. (Docket Nos. 28, 35). The State of Oregon has appeared as amicus curiae. (Docket Nos. 37, 38).

Plaintiffs challenge the SFEIS and ROD under the Administrative Procedure Act, 5 U.S.C. § 704. Plaintiffs bring claims under the following statutes, regulations, and rules:

(1) the Endangered Species Act ("ESA"), 16 U.S.C. § 1531 *et seq.*;

(2) the National Forest Management Act ("NFMA"), 16 U.S.C. § 1600 *et seq.*, and the Ochoco National Forest Land and Resource Management Plan ("Forest Plan"), AR 1386-1875;

(3) the National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4321 *et seq.*;

(4) the Inland Native Fish Strategy ("INFISH"), AR 2563-80; and

(5) the Travel Management Rule ("TMR"), 70 Fed. Reg. 68,264 (Nov. 9, 2005).

[1] Substituted as defendant for former Forest Supervisor Stacey Forson.

The parties have filed cross-motions for summary judgment. (Docket Nos. 48, 57, 58, 69). Additionally, LandWatch moved to supplement the Administrative Record (Docket No. 52), and amicus moved to submit extra-record evidence (Docket No. 55); defendants oppose both Motions (Docket No. 68). LandWatch then moved to strike the federal defendants' response to its Motion to Supplement. (Docket No. 73).

The Court heard oral argument on the Motions on May 22, 2018. (Docket Nos. 86, 88). At the oral argument, the Court DENIED LandWatch's Motion to Supplement and amicus' Motion to Submit Extra-Record Evidence, and accordingly, DENIED as moot LandWatch's Motion to Strike, for the reasons stated at the hearing and herein.

For the following reasons, the Court should GRANT IN PART AND DENY IN PART the Motions for Summary Judgment, as provided below. The Court should VACATE the Forest Service's decision and REMAND for further proceedings.

BACKGROUND

I. The Ochoco Summit Trail System Project

The Ochoco Summit Trail System Project (the "Project") consists of a 137-mile trail system throughout the Ochoco National Forest (the "Forest") designed to provide recreational opportunities for off-highway vehicles ("OHVs"). AR 25226, 28725-26, 28734-47. Thirty of these miles are "connecting high-clearance roads," and the remainder are "appropriately and sustainably located user-created trails," "trails on existing road beds," and newly constructed trails. AR 28734. Eighty-four of the miles are on existing roads, and the other fifty-three are "new" routes not on existing roads. AR 28735. The Project incorporates forty existing stream crossings, and adds thirty-nine new crossings. AR 28743-44. The trail system would be open to

OHV use from June 1 through September 30, and year-round for non-motorized use. AR 28736. The trails traverse a 301,580-acre area (the "Project Area") near Prineville, Oregon. AR 25218.

The Project incorporates an "OHV Management Area" to address unauthorized OHV trails that can degrade the environment and cause conflict between motorized and non-motorized recreational users. AR 25262-68, 25303, 25310-11, 28738-39. The Project incorporates project design features and mitigation measures designed to protect forest resources, including streams and riparian areas, and big game, particularly elk. AR 25253-70, 28759-63. The Project includes four segments that pass through three old growth management areas, AR 25252, 25662-64, 28771, and construction of a new trail through scabland, AR 25257, 25664, 28777.

II. Project History and Approval

The Forest Service held public meetings from 2006 to 2009 to gather input on, and discuss changes to, Forest roads and trails. AR 8580. This resulted in a November 2009 scoping notice regarding the need for a designated trail system in the Forest, including a proposed action. AR 8578-8605. The Forest Service proposed an OHV trail system to meet the demand for OHV recreational opportunities and address unauthorized user-created trails. AR 8581-83. The Forest Service issued a draft Environmental Impact Statement ("EIS") for the Project in January 2012, and a final EIS and draft Record of Decision ("ROD") in March 2014. AR 25232. The Forest Service then withdrew the final EIS and draft ROD in July 2014 to permit further Project design. AR 21632. It issued a supplemental draft EIS in February 2016, and a supplemental final EIS ("SFEIS") in September 2016. AR 25203, 25232. Finally, the Forest Supervisor approved the Project in a final ROD on June 27, 2017. AR 28753, 28764.

The SFEIS evaluated five alternative project designs: a "no-action" alternative and four action alternatives. AR 25236, 25252. The Forest Supervisor ultimately adopted the Project, consisting of Alternative 5 with the addition of one route from Alternative 2. AR 28733.

LEGAL STANDARD

Under the Administrative Procedure Act ("APA"), 5 U.S.C. § 551 *et seq.*, a court "shall" set aside any agency action that is, *inter alia*, "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law," *id.* § 706(2)(A). "This inquiry must be searching and careful, but the ultimate standard of review is a narrow one." *Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 378 (1989) (quotations omitted). "As a reviewing court, [the court] must consider whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment." *San Luis & Delta-Mendota Water Auth. v. Jewell*, 747 F.3d 581, 601 (9th Cir. 2014) (quotation omitted). "To have not acted in an arbitrary and capricious manner, the agency must present a rational connection between the facts found and the conclusions made." *Native Ecosystems Council v. U.S. Forest Serv.*, 418 F.3d 953, 960 (9th Cir. 2005) (quotation omitted). "[W]here the agency's reasoning, although complex, is rational, clear, and complete, [the court] must affirm. Contrarily, where the agency's reasoning is irrational, unclear, or not supported by the data it purports to interpret, [the court] must disapprove the agency's action." *Nw. Coal. for Alternatives to Pesticides (NCAP) v. U.S. E.P.A.*, 544 F.3d 1043, 1052 n.7 (9th Cir. 2008) (quotation omitted). "Although [the court's] inquiry must be thorough, the standard of review is highly deferential; the agency's decision is entitled to a presumption of regularity, and [the court] may not substitute [its] judgment for that of the agency." *San Luis & Delta-Mendota Water Auth.*, 747 F.3d at 601 (quotation omitted).

"Agency action '[n]ormally' is arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise. *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). "[A]n agency's decision can be upheld only on the basis of the reasoning in that decision." *Anaheim Mem'l Hosp. v. Shalala*, 130 F.3d 845, 849 (9th Cir. 1997).

ANALYSIS

I. Motions Concerning Evidence and the Administrative Record

LandWatch moved to supplement the Administrative Record with two maps it prepared of elk security habitat in the Project Area. Pl. LandWatch Mot. Supplement (Docket No. 52); Quinlan Decl., Ex. B & C (Docket Nos. 53, 53-2, 53-3). Amicus moved to submit extra-record evidence, specifically, a map it created of gray wolf dispersal paths. Amicus Mot. Submit Extra-Record Evid. (Docket No. 55); Brown Decl., Ex. 1 (Docket Nos. 56, 56-1). Federal defendants opposed these Motions. (Docket No. 68). Along with their Opposition brief, defendants submitted the Passarelli Declaration to support their arguments that the maps that LandWatch and amicus submitted were flawed and improper for the Court to consider. (Docket No. 68-1). LandWatch, in turn, moved to strike the Passarelli Declaration. (Docket No. 73).

For the reasons stated at oral argument, and for the reasons that follow, the Court DENIED LandWatch's Motion to Supplement and amicus' Motion to Submit Extra-Record Evidence, and accordingly, DENIED as moot LandWatch's Motion to Strike.

A. Consideration of Extra-Record Evidence under the Administrative Procedure Act

Courts reviewing an agency decision are limited to the administrative record. *Fla. Power & Light Co. v. Lorion*, 470 U.S. 729, 743-44 (1985). "Judicial review of an agency decision typically focuses on the administrative record in existence at the time of the decision and does not encompass any part of the record that is made initially in the reviewing court." *Sw. Ctr. for Biological Diversity v. U.S. Forest Serv.*, 100 F.3d 1443, 1450 (9th Cir. 1996). There are "narrow exceptions" to this rule, in "limited circumstances." *Lands Council*, 395 F.3d at 1030:

> [D]istrict courts are permitted to admit extra-record evidence: (1) if admission is necessary to determine whether the agency has considered all relevant factors and has explained its decision, (2) if the agency has relied on documents not in the record, (3) when supplementing the record is necessary to explain technical terms or complex subject matter, or (4) when plaintiffs make a showing of agency bad faith.

Id. (quotations omitted). "These limited exceptions operate to identify and plug holes in the administrative record. . . . [T]hese exceptions are narrowly construed and applied." *Id.* "[T]he party seeking to admit extra-record evidence initially bears the burden of demonstrating that a relevant exception applies." *San Luis & Delta-Mendota Water Auth.*, 776 F.3d at 993.

B. Consideration of Extra-Record Evidence under the Endangered Species Act

Unlike APA review, review under the Endangered Species Act ("ESA") is not limited to the administrative record. *W. Watersheds Project v. Kraayenbrink*, 632 F.3d 472, 497 (9th Cir. 2011) (holding that a court "may consider evidence outside the administrative record for the limited purposes of reviewing [an] ESA claim"). While the APA's standard of review applies to ESA citizen suits, the APA does not limit the scope of review. *Id.* at 481; *Wash. Toxics Coal. v. E.P.A.*, 413 F.3d 1024, 1034 (9th Cir. 2005), *abrogated on other grounds as recognized by Cottonwood Envtl. Law Center v. U.S. Forest Service*, 789 F.3d 1075 (9th Cir. 2015).

C. LandWatch's Motion to Supplement

LandWatch's maps do not satisfy the strict APA requirements for supplementation of the Administrative Record. The maps were created after the administrative process, specifically for this litigation, and first presented before this Court. The *Lands Council* "exceptions to the normal rule regarding consideration of extra-record materials only apply to information available at the time, not post-decisional information." *Tri-Valley CAREs v. U.S. Dep't of Energy*, 671 F.3d 1113, 1130 (9th Cir. 2012) (alteration and quotation omitted). LandWatch's submissions constitute attempts to provide its own presentation of the facts regarding vegetation management projects and "actual habitat conditions" of the elk security habitat, to try to persuade the Court that the Forest Service's decision was incorrect. Additionally, LandWatch's materials are not of a complexity that requires additional explanation for the Court. *See Inland Empire Pub. Lands Council v. Glickman*, 88 F.3d 697, 704 (9th Cir. 1996), *as amended* (July 15, 1996).

For purposes of ESA review, LandWatch has not demonstrated that the proffered maps are relevant to the parties' ESA claims, or that they would contribute to the Court's analysis or decisionmaking, beyond what is already before the Court in the Administrative Record. LandWatch's argues that the Forest Service's determination that the Project would have "no effect" on endangered gray wolves is flawed in part because the Project would affect elk, the wolves' primary prey. *See* AR 25479. However, the Record already indicates that, and the Forest Service has considered that, the Project would impact elk habitat and distribution, and this indicates potential effects on gray wolves via effects on their prey. Maps overlaying the Project Area, elk security habitats, vegetation management activities, and other special habitat types, as proffered by LandWatch, do not contribute to, inform, or alter this analysis. Although elk, their habitats, and the Project's effects on those habitats are relevant to the parties' ESA claims

regarding gray wolves, the specific subject matter of these maps is not. LandWatch's proposed submissions are not proper supplements to the Administrative Record.

D. Amicus' Motion to Submit Extra-Record Evidence

Amicus' Motion to Submit Extra-Record Evidence is improper. Amicus' role is "assisting in a case of general public interest, supplementing the efforts of counsel, and drawing the court's attention to law that escaped consideration." *Miller-Wohl Co. v. Comm'r of Labor & Indus. State of Mont.*, 694 F.2d 203, 204 (9th Cir. 1982). "An amicus curiae is not a party to litigation," and courts "rarely give[] party prerogatives to those not formal parties"; "[a] petition to intervene and its express or tacit grant are prerequisites to that treatment." *Id.* at 204. Amicus has not moved to intervene and does not have the prerogatives of a proper party in this action, such as filing a motion to consider extra-record evidence. *See also United States v. Oregon*, 745 F.2d 550, 553 (9th Cir. 1984) (noting "obvious distinctions between parties and amici").[2]

Even if amicus were permitted to move to submit extra-record evidence, the proffered map evidence would not be admissible. For the same reasons that LandWatch's maps do not fall within the *Lands Council* exceptions, amicus' map is not admissible under the APA. It was created after the administrative process and was not before the agency. It does not demonstrate, beyond what the Administrative Record already contains, how the Forest Service purportedly failed to consider the Project's impacts on gray wolves, and it does not explain terms or subject matter too technical or complex for the Court to otherwise understand. As for the ESA, the

[2] Likewise, amicus attempts to bring its own causes of action in its pleadings, in addition to and independent of the parties' claims. This too is improper. (Just as was amicus' unpermitted Reply brief. (Docket No. 76)). The role of amicus' briefing is to inform the Court and provide perspective on the issues the parties themselves raise; it is not to act like a plaintiff and bring additional causes of action. Therefore, the Court does not consider amicus' putative claims to be properly before the Court. Nonetheless, the Court has used amicus' briefing for its proper purpose, that is, informing its analysis of the parties' claims and arguments.

proffered map does not contribute to the Administrative Record as is relevant to the Court's analysis. The parties' ESA arguments simply rely on the fact that wolves disperse through the Project Area, which the Administrative Record already indicates. Amicus' proposed submission is not properly considered as extra-record evidence.[3]

E. LandWatch's Motion to Strike

Federal defendants have submitted the Passarelli Declaration (Docket No. 68-1) in support of their argument that LandWatch's and amicus' proffered maps are scientifically flawed, are not properly considered as extra-record evidence or supplements to the Administrative Record, and do not support the substantive arguments in support of which those parties seek to submit them. The Passarelli Declaration, therefore, is not submitted in support of federal defendants' arguments on the merits or the substance of the parties' Motions for Summary Judgment. It is thus fundamentally different from LandWatch's and amicus' proposed submissions. Because it is not presented for purposes of adjudicating the parties' claims under the APA or the ESA, the above-described standards do not govern the Passarelli Declaration's admissibility. Rather, the question is whether the Declaration is relevant and admissible for these limited evidentiary purposes under generally applicable rules of evidence.

Nonetheless, the Court has determined that LandWatch's and amicus' proffered evidence is not properly admitted, and the Court's determination thereon does not rely on the Passarelli Declaration. Thus, LandWatch's Motion to Strike the Passarelli Declaration is moot.

* * *

[3] Amicus also suggests that the map may be considered as a mere "explanatory aid that visually demonstrates data and information already in the record." Amicus Mot. Submit Extra-Record Evid., at 3 (Docket No. 55). To the extent amicus seeks to use the map as simply a visual aid or illustration—but not have it considered as evidence or admitted to the record—it may do so without filing a motion.

For these reasons, the Court DENIES plaintiff LandWatch's Motion to Supplement the Administrative Record (Docket No. 52) and amicus' Motion to Submit Extra-Record Evidence (Docket No. 55). LandWatch's Motion to Strike (Docket No. 73) is DENIED as moot.

II. Standing

Each plaintiff has established standing to bring each of its claims.

"To establish standing, a plaintiff must show that (1) he or she has suffered an injury in fact that is concrete and particularized, and actual or imminent; (2) the injury is fairly traceable to the challenged conduct; and (3) the injury is likely to be redressed by a favorable court decision." *WildEarth Guardians v. U.S. Dep't of Agric.*, 795 F.3d 1148, 1154 (9th Cir. 2015) (quotation omitted). An organization or association

> has standing to bring suit on behalf of its members when: (a) its members would otherwise have standing to sue in their own right; (b) the interests it seeks to protect are germane to the organization's purpose; and (c) neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit.

Or. Advocacy Ctr. v. Mink, 322 F.3d 1101, 1109 (9th Cir. 2003) (quotation omitted). "[T]he presence of one party with standing is sufficient to satisfy Article III's case-or-controversy requirement." *Rumsfeld v. Forum for Acad. & Inst. Rights, Inc.*, 547 U.S. 47, 52 n.2 (2006). "[E]nvironmental plaintiffs adequately allege injury in fact when they aver that they use the affected area and are persons for whom the aesthetic and recreational values of the area will be lessened by the challenged activity." *Friends of the Earth, Inc. v. Laidlaw Envtl. Servs., Inc.*, 528 U.S. 167, 180-81 (2000) (quotation omitted).

Federal defendants challenge standing only as to LandWatch's ESA claims. *See* Fed. Def. MSJ, at 74 n.34 (Docket No. 69). However, Guardians also bring identical, if not broader, claims regarding the gray wolf, under both the ESA and NEPA, and defendants have not

challenged Guardians' standing. The ESA claims are thus properly before this Court. Defendants argue that, although LandWatch's declarants testify to a general interest in Forest wildlife, the declarations are insufficiently specific regarding wolves. Regardless of whether the initial declarations were sufficient as to wolves and the ESA, LandWatch has submitted the supplemental Miller Declaration, which specifically demonstrates an interest in witnessing and photographing wolves in the Project Area, which is sufficiently specific to establish standing. *See* Miller Suppl. Decl. ¶¶ 6-7 (Docket No. 77-1); *Friends of the Earth*, 528 U.S. at 183. Federal defendants' arguments against LandWatch's standing are unsuccessful.

III. The Endangered Species Act and Gray Wolves

A. The Endangered Species Act

"The purposes of" the Endangered Species Act ("ESA"), 16 U.S.C. § 1531 *et seq.*, "are to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species . . . ." It is "the policy of Congress that all Federal departments and agencies shall seek to conserve endangered species and threatened species . . . ." 16 U.S.C. §§ 1531(b) - (c)(1).

ESA Section 7 consultation requires each federal agency to "insure that any [agency] action . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species . . . ." *Id.* § 1536(a)(2). "Only after [an agency] complies with § 7(a)(2) can any activity that may affect the protected [species] go forward." *Pac. Rivers Council v. Thomas*, 30 F.3d 1050, 1056-57 (9th Cir. 1994). "Congress' intent" under Section 7 was "to give the benefit of the doubt to the species." *Conner v. Burford*, 848 F.2d 1441, 1454 (9th Cir. 1988) (quotation omitted).

The first step under Section 7 is to determine whether any listed or proposed to be listed species may be present in the area of the proposed action. 16 U.S.C. § 1536(c)(1); 50 C.F.R. § 402.12(c). If such a species may be present, the agency must prepare a biological assessment to determine if the proposed action may affect a listed species. 16 U.S.C. § 1536(c)(1). If the agency determines that its actions "may affect" a listed species or critical habitat, the agency must engage in formal consultation under Section 7(b) of the ESA with either the Fish and Wildlife Service ("FWS") or the National Marine Fisheries Service. *Kraayenbrink*, 632 F.3d at 496; 50 C.F.R. §§ 402.01, 402.14(a)-(b). "The minimum threshold for an agency action to trigger consultation with FWS is low . . . ." *Kraayenbrink*, 632 F.3d at 496. "[A]ny possible effect, whether beneficial, benign, adverse, or of an undetermined character, triggers the formal consultation requirement." *Id.* (quoting 51 Fed. Reg. 19,926, 19,949 (June 3, 1986)). If the agency determines that its action will have "no effect" on a listed species or critical habitat, the agency has no further ESA obligations. *Pac. Rivers Council*, 30 F.3d at 1054 n.8.

B. Gray Wolves and the Project

The Forest Service concluded the Project would have "No Effect" ("NE") on the gray wolf. AR 25479. It reached this conclusion based on a finding that there were no breeding packs in the Forest, and because no wolves were known to consistently occupy the Project Area. *Id.* The Forest Service's conclusion, however, is erroneous. The inquiry under the "may be present" step of the Section 7 consultation analysis is not whether a given species may be present in great enough numbers to constitute a breeding pack, or by specific individuals consistently occupying an area, but whether the species "may" be "present." The Administrative Record contains numerous references to gray wolves' presence in the Forest. Data shows "marked increase" in use of the Forest by gray wolves, with expanding distribution including movement

through the Forest. AR 27023, 27041. Guardians noted "reputable reports" of wolf observations in the Forest. *Id.* Forest Service staff and contractors also made wolf observation reports. AR 24986, 25149-51. Location data from wolves with radio collars show gray wolves traveling through the Project Area. AR 23788, 25479. The Forest Service noted that the Project Area contains "Dispersal/Transient" habitat for gray wolves, and that the wolf is "likely to occupy" the Project Area. AR 25477-78.

Defendants rely on *Defenders of Wildlife v. Flowers*, 414 F.3d 1066 (9th Cir. 2005), to argue that residency is required before there can be any effects to a species under Section 7. *Flowers* does not so hold, and the facts of that case are inapposite. In *Flowers*, no pygmy owl (the species in question) had ever been detected in the project area, and only in one older survey had a pygmy owl been found near the area. This is unlike the situation here, where wolves are known to be present in the Forest on occasion, and in the Project Area specifically.

Given this erroneous basis for a negative finding at the "may be present" step of the Section 7 analysis, the Forest Service must reevaluate whether the Project "may affect" the gray wolf. This is especially so given the "low" threshold for the "may affect" analysis, which considers "any possible effect." *Kraayenbrink*, 632 F.3d at 496. Such effects are strongly suggested by defendants' admissions that roads and motorized routes can affect wolves by reducing available prey (such as elk and deer) and by decreasing the suitability of habitat, and that wolves avoid areas with motorized vehicle activity and concentrated human activities. Answer to Am. Compl. ¶ 105 (Docket No. 27); Answer to Am. Compl. ¶ 58 (Docket No. 32).[4] The Administrative Record also notes potential impacts to wolves and their prey from wolves'

[4] "Gray wolves avoid areas with motorized vehicle activity. Gray wolves avoid areas with concentrated human activity," Am. Compl. ¶ 58 (Docket No. 24); "Road and ORV routes can effect wolves by reducing their available prey, such as elk and deer, and decreasing suitability of denning, foraging and dispersal habitat," Am. Comp. ¶ 105 (Docket No. 23).

use of Project Area land for denning, foraging, and dispersing; from shifting from public to private lands; from changing prey distributions; from conflict with humans; and from increased road densities and traffic. AR 26743-44. To the extent gray wolves "may be present" in the Project Area, the "may affect" analysis must address these considerations.

Defendants argue that, while they were not required to do so, they obtained the endorsement of FWS through emails and informal communications. This is not enough given that it is undisputed that the gray wolves may be present in the Project area. The Forest Service must conduct a formal consultation with the appropriate agencies regarding the effects on an endangered species. 50 C.F.R. §§ 402.13, 402.14

The Forest Service's determination at the "may be present" stage of the Section 7 consultation inquiry, and thus its "no effect" determination, violated the ESA. For these same reasons, the Forest Service failed to take a "hard look" at the Project's effects on gray wolves, in violation of the National Environmental Policy Act. LandWatch's and Guardians' Motions for Summary Judgment should be granted as to their ESA gray wolves claim, and defendant's Motion should be denied.

IV. Elk Habitat Claims under NFMA and NEPA

Each plaintiff brings claims regarding the Project's impacts on elk and elk habitat under the National Forest Management Act ("NFMA") and National Environmental Policy Act ("NEPA"). The claims concern protection of elk calving areas and wallows,[5] the protection of elk habitat, the scientific integrity of the studies on which the Forest Service made decisions regarding habitat, and the cumulative impacts of the Project with other Project Area actions.

[5] Wallows are holes that bull elk dig into the ground, where they urinate to deploy scent and roll around in, to alert other elk to their presence.

A. The National Forest Management Act

"The NFMA and its implementing regulations provide for forest planning and management by the Forest Service on two levels: (1) forest level and (2) individual project level." *Native Ecosystems Council v. Weldon*, 697 F.3d 1043, 1056 (9th Cir. 2012) (citing 16 U.S.C. § 1604). First, the Forest Service develops a Land and Resource Management Plan (a "forest plan"), containing "broad, long-term plans and objectives for the entire forest." *Id.* It then implements the forest plan through site-specific projects." *Id.* The NFMA requires that "[r]esource plans and permits, contracts, and other instruments for the use and occupancy of National Forest System lands" be consistent with the forest plan. 16 U.S.C. § 1604(i).

"Procedurally, all management activities undertaken by the Forest Service must comply with the forest plan, which in turn must comply with the NFMA." *Native Ecosystems Council v. Tidwell*, 599 F.3d 926, 932 (9th Cir. 2010) (quotation omitted).

> Substantively, the NFMA also places a duty on the Forest Service to "provide for diversity of plant and animal communities based on the suitability and capability of the specific land area . . . ." 16 U.S.C. § 1604(g)(3)(B). In order to ensure compliance with the forest plan and the NFMA, the Forest Service must conduct an analysis of each "site specific" action, such as a timber sale, to ensure that the action is consistent with the forest plan.

Id. (quotation omitted). "Every project and activity must be consistent with the applicable plan components. A project or activity approval document must describe how the project or activity is consistent with applicable plan components . . . ." 36 C.F.R. § 219.15(d).

Land and resource management plans must "provide for multiple use and sustained yield of the products and services obtained therefrom in accordance with the Multiple-Use Sustained-Yield Act of 1960 [16 U.S.C. §§ 528-531], and, in particular, include coordination of outdoor recreation, range, timber, watershed, wildlife and fish, and wilderness." 16 U.S.C. § 1604(e).

The Forest Service has broad discretion to determine how to balance these uses to "best meet the needs of the American people." *Id.* § 531(a).

"While NFMA requires that the proposed site-specific actions be consistent with the governing Forest Plan, the Forest Service's interpretation and implementation of its own forest plan is entitled to substantial deference." *Weldon*, 697 F.3d at 1056; *see also Ecology Ctr. v. Castaneda*, 574 F.3d 652, 661 (9th Cir. 2009).

B. The National Environmental Policy Act

"NEPA declares a broad national commitment to protecting and promoting environmental quality." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 348 (1989) (citing NEPA § 101, 42 U.S.C. § 4331). Its purpose is "action-forcing":

> It ensures that the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts; it also guarantees that the relevant information will be made available to the larger audience that may also play a role in both the decisionmaking process and the implementation of that decision.

Id. at 349. "[T]he task is to ensure that the agency has taken a 'hard look' at the potential environmental consequences of the proposed action." *Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt.*, 387 F.3d 989, 993 (9th Cir. 2004). "NEPA itself does not mandate particular results, but simply prescribes the necessary process." *Robertson*, 490 U.S. at 350.

If proposed agency action "*may* have a significant effect on the environment," the agency must prepare an "Environmental Impact Statement" ("EIS"), which provides a "detailed" analysis. *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1212 (9th Cir. 1998) (italics added, quotation omitted); 42 U.S.C. § 4332(2)(C); 40 C.F.R. §§ 1501.4, 1508.11. Alternately, regulations permit agencies to prepare "a more limited document," an "Environmental Assessment" ("EA"), which is a "'concise public document' that '[b]riefly

provide[s] sufficient evidence and analysis for determining whether to prepare an [EIS].'" *Jones v. Nat'l Marine Fisheries Serv.*, 741 F.3d 989, 997 (9th Cir. 2013) (alterations in original) (quoting 40 C.F.R. § 1508.9(a)).

"Taking a 'hard look' includes considering all foreseeable direct and indirect impacts." *Ctr. for Biological Diversity v. Salazar*, 695 F.3d 893, 916-17 (9th Cir. 2012) (quotation omitted). "Direct" effects (i.e., impacts) "are caused by the action and occur at the same time and place." 40 C.F.R. § 1508.8(a). "Indirect" effects "are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable," including "effects on air and water and other natural systems, including ecosystems." *Id.* § 1508.8(b). "Cumulative" effects include "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions . . . [and] can result from individually minor but collectively significant actions taking place over a period of time." 40 C.F.R. § 1508.7. The agency must disclose the direct, indirect, and cumulative impacts and consequences of its actions. 40 C.F.R. §§ 1502.16(a) & (b), 1508.25(c), 1508.27(b)(7). The failure to disclose or analyze this information means that the agency has failed to take a "hard look" at environmental consequences. *Klamath-Siskiyou Wildlands Ctr.*, 387 F.3d at 994-96.

C. Protection of Elk under NFMA and the Forest Plan

1. Calving and Wallows

The Forest Plan's Forest-Wide Standards and Guidelines require the Forest Service to protect elk in two regards:

"(1) Protect the character of elk calving sites. Minimize disturbance from human activity during calving seasons (approximately May 15 to June 30)."

"(2) Also protect wallows during rutting season (September 1 to October 15)." AR 1670.[6]

Plaintiffs contend that the Project violates these requirements by authorizing motor vehicle use on routes through calving sites and wallows during the relevant seasons. Motorized OHV use is permitted from June 1 through September 30. AR 28734, 28737. The Project imposes seasonal timing restrictions on "project construction, re-construction, decommissioning and maintenance activities" from May 15 through June 30 in elk calving areas, and from September 1 through October 15 within .25 miles of elk wallows. AR 25260, 28759. While defendants argue that these timing restrictions were meant to apply to motorized OHV use during the relevant calving and rutting seasons, the record does not reflect defendants' claim.

In addition, the restrictions are insufficient to protect the sites as required by the Forest Plan. These restrictions apply only to *known* sites. AR 28759-60. The SFEIS and ROD do not identify where known calving sites and wallows are located or how they relate to Project open routes (although the SFEIS does provide some quantification of elk calving sites and discussion of *potential* calving sites). There are no maps or otherwise documented locations of specific elk wallows to which timing restrictions would apply. As indicated, there are no seasonal *motorized use* restrictions on routes passing through or near calving sites and wallows because the Project allows motorized vehicle use from June 1 to September 30. AR 28736.

Regarding calving sites, the Forest Service mapped fawning sites and found that the Project would designate sixty-nine miles of OHV trails through calving sites. AR 25528-29. This could "impact habitat in potential elk calving areas by 11,040 acres," or 9% of total elk calving acres in the Project Area. AR 25529. The SFEIS acknowledges that June is a "critical time period[]" for calving. AR 25519. With regard to wallows, the Forest Service considers elk

[6] Rutting season is mating season.

wallows "fragile areas" deserving of extra consideration and protection under the Forest Plan. AR 1284, 25534. Elk are particularly vulnerable during these reproductive and breeding periods. AR 26928. However, the SFEIS and ROD do not identify where known wallows are located or how they are located in relation to Project open routes. The SFEIS does not explain how or why allowing motor vehicle use on routes through calving sites and wallows during the relevant seasons protects calving sites and wallows. The Administrative Record contains numerous studies and comments regarding the adverse effects of motor vehicle use on elk, especially during calving and rutting seasons. *See, e.g.*, AR 3598-99, 6289, 25528, 26743, 26927-28; SR 120 (*Rowland* (2000)), 429 (*Wisdom* (2005)). Further, the provisions for future monitoring and mitigation of disturbance to these sites, *see* AR 28782-83, which have not been prepared or funded, are not sufficient to meet Forest Plan requirements. The duty to demonstrate Forest Plan consistency applies at the time of the decision, not at a speculative future date. *Ohio Forestry Ass'n v. Sierra Club*, 523 U.S. 726, 729-30 (1998).

Defendants argue that the Forest Service is entitled to deference regarding how it will meet its obligation to minimize disturbances and protect calving sites and wallows. They argue that the Forest Plan does not contain specific mandates on how the Forest Service must minimize disturbance and does not impose specific seasonal use restrictions. However, the deficiency in the Project's compliance with the Forest Plan does not lie with agency interpretation of protection or minimization, to which deference could apply. The problem is that, without 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.

Likewise, seasonal restrictions on construction and maintenance, but not on motorized vehicle use, during the seasons the Forest Plan specifically identifies for protection are

inconsistent with the Forest Plan and not entitled to deference. *Native Ecosystems Council*, 418 F.3d at 960 (holding that a court does not defer to an agency interpretation of forest plan where the action is inconsistent with that plan). The motor vehicle use permitted under the Project occurs during sensitive elk seasons, and thus conflicts with and violates the Forest Plan provisions requiring the Forest Service to minimize human activity during calving season and to protect wallows during rutting season. The Forest Service has failed to explain how the Project is consistent with the Forest Plan in this regard. *See Neighbors of Cuddy Mountain v. U.S. Forest Serv.*, 137 F.3d 1372, 1377 (9th Cir. 1998) (finding NFMA violation where agency provided no information on woodpecker home ranges, despite forest plan requirement to protect a certain amount of old growth within home ranges). This is arbitrary and capricious, and violates the NFMA. Each plaintiff's Motion for Summary Judgment should be granted as to their elk calving site and wallows claims, and defendant's Motion should be denied.

2. Road Density

Guardians and Hunters argue that the SFEIS fails to comply with Forest Plan road density standards. These standards are important for the protection of big game habitat. AR 25511. The Forest Plan requires that open road densities in the Project Area remain below 3.0 miles per square mile ("mi/mi^2"). AR 1683. Hunters argue that the SFEIS and ROD fail to adequately explain how the Project will meet this road density requirement, thus violating the Forest Plan and the NFMA, and NEPA. The Forest Plan also requires that roads and trails "be at the lowest density which meets long-term resource needs." AR 1648. Guardians argue that the SFEIS and ROD fail to address this requirement.

First, defendants argue that Hunters waived their road density arguments by not raising the issue during the administrative process. However, Hunters made objections regarding the

number of Project new road miles, Project Area, and road density requirements multiple times during the administrative process. *See, e.g.*, AR 8686-87, 15635, 17573-75, 23865-69, 23964-65, 26327, 26347-48. The Forest Service was aware of these objections and even addressed them in its responses. *See, e.g.*, AR 28157-59, 28120, 28122. It was not required, within the issue of road density requirement compliance, for Hunters to have specifically raised the precise legal argument that it forwards in litigation. The administrative exhaustion requirement is "interpreted broadly." *Nat'l Parks & Conservation Ass'n v. B.L.M.*, 606 F.3d 1058, 1065 (9th Cir. 2010). An issue must simply be raised "with sufficient clarity to allow the decision maker to understand and rule on the issue raised." *Id.* Alerting an agency in general terms is enough to satisfy the exhaustion requirement, as long as the agency has been given "a chance to bring its expertise to bear to resolve [the] claim." *Lands Council v. McNair*, 629 F.3d 1070, 1075 (9th Cir. 2010) (alteration in original); *see also Native Ecosystems Council v. Dombeck*, 304 F.3d 886, 899 (9th Cir. 2002). There is no need to cite the relevant statute or regulation to exhaust a legal issue, nor does a plaintiff need to invoke the exact legal terms of art drawn from those statutory authorities. *Or. Nat. Desert Ass'n v. McDaniel*, 751 F. Supp. 2d 1151, 1161 (D. Or. 2011). Hunters did not waive arguments pertaining to road density.

The SFEIS states that the motorized road density (roads plus trails) for the Project chosen alternative is 2.06 mi/mi^2. AR 25518. However, the SFEIS contains inconsistent road mileage calculations and figures. Under the "no-action" alternative, the Forest Service concluded that the existing road density was 1.83 mi/mi^2, given 862 miles of existing and open roads and motorized trails in the Project Area. *Id.*[7] This is repeated at AR 25283.[8] However, the same page of the

[7] Using the Forest Service's figure of total Project Area at 471.14 square miles, AR 25518, 1.83 mi/mi^2 of road density means 862 miles of road (471.14 x 1.83).
[8] This assumes closure of all operational maintenance level 1 roads. AR 25283.

SFEIS provides data that would yield a much higher total of 1,069 miles of open roads: 659 miles of operational maintenance level 2 roads, 140 miles of highway-legal only roads (maintenance level 3 to 5), and 270 miles of "unclassified or other jurisdiction" roads. AR 25518-19. Table 8 in the SFEIS Transportation Section repeats 1,069 miles of existing open road. AR 25283. Given that the Project adds 107 miles of open motorized routes, AR 28734, this yields a higher road density of 2.49 mi/mi^2.[9] Further, the SFEIS states that there are nearly 700 miles of user-created OHV routes, including open and closed roads, in the Project Area. AR 25284. The SFEIS calculations of road density did not include user-created motorized trails. *Id.* The SFEIS suggests that "some" user-created trails are "anticipated" to be closed and rehabilitated, but does not indicate when or how this would occur. AR 25532, 25540, 25567-70. The SFEIS does not explain why user-created trails were excluded from the road density analysis. Presumably, elk are unable to distinguish between user-created and Forest-Service-created motorized routes, especially given that open road density is one of the main factors influencing the effectiveness of big game habitat. AR 1676. Adding in 700 miles of user-created roads raises the road density to 3.75 mi/mi^2, well above Forest Plan limitations.[10]

Moreover, the SFEIS elsewhere states that there are 1,820 miles of open road in the Project Area. AR 25280, 25343. The derivation of this number is unclear, as is how many of these miles could have been excluded from the road density calculations, or why. It appears that the Forest Service may have used the larger 1,820-mile figure when it analyzed certain of the Project's impacts in order to minimize their appearance. For example, with regard to Project impact on soils, the SFEIS states that "new trails add only 3 percent to the total 1,820 miles of

[9] (1,069 miles + 107 miles) / 471.14 miles square.
[10] (1,069 miles of existing open roads + 700 miles of user-created roads) / 471.14 mi^2 of Project Area. This is before considering the 107 miles added by the Project.

roads and trails . . . . Total existing road and trail acreage impacts would be increased by less than 0.014 percent . . . ." AR 25341. And, "new trails add only 4.6 percent of the total 1,820 miles of road . . . in the project area." AR 25345-46. The Forest Service argues that 669 miles of these are closed roads, and that the road density requirement applies only to open roads. However, this yields (1,820 – 669) 1,151 miles of road, yielding an even higher road density calculation, when added to user-created trails and new Project routes. Further, defendants admit that these closed roads receive unauthorized OHV use, AR 25472, which adds to and repeats the problem of arbitrarily excluding user-created trails from road density calculations.[11]

The Forest Service's provision of these unexplained, significantly different mileage figures, and its omission of user-created trails from road density calculations, was arbitrary and capricious. The use of and conflicting data and calculations undermines the legitimacy and validity of the Forest Service's determinations regarding whether it has complied with the substantive road density requirements. These figures make the SFEIS and ROD internally inconsistent, and arbitrarily and capriciously skew the road density calculations. This also violates the agency's obligation to be accurate and transparent in calculating figures so that the public is provided with quality information, and to ensure that meets Forest Plan requirements. *See Native Ecosystems Council*, 418 F.3d at 964-65.

In response to plaintiffs' contentions, the Forest Service argues that the agency has discretion in the administrative process regarding the road calculations. Defendants argue that

[11] Hunters also argue broadly that the Forest Service did not consider the impacts of continued use from trails it considered closed regarding elk security habitat. However, the Forest Service acknowledged that closed roads may continue to have unauthorized OHV use and that this could impact wildlife security habitat. AR 25472, 25519. The SFEIS also explained that active enforcement of trail closures would increase, that trails would be rehabilitated and restored, and that closed and unauthorized trails would be marked and discouraged or prohibited. AR 25255, 25475, 28782, 28785. This suffices to satisfy the Forest Service's obligation to consider impacts of continued use of closed roads.

the Forest Service exercised its discretion in choosing which roads to include in the road density analysis. However, there is no explanation or justification for the exclusion of user-created trails. Defendants argue that the Forest Plan does not explicitly require the inclusion of closed or user-created trails in the road density analysis. The question is whether the Forest Service has adequately explained and justified the decision to exclude these trails, which the Forest Service has not done. They argue that the 1,820 mile figure is irrelevant because it is for a "separate analytical purpose," Fed. Def. MSJ, at 43 (Docket No. 69), but do not explain this purpose or why the Forest Service could use different calculations of total mileage to reach conclusions in certain contexts and different conclusions in others. Although the Forest Service has discretion to interpret the Forest Plan, *see Weldon*, 697 F.3d at 1056, this deference does not extend to decisions that the agency has made without explanation or analysis. The result is that the Forest Service here has acted arbitrarily and capriciously with regard to road density analysis.

Guardians also argue that the Forest Plan requires roads and trails to "be at the lowest density which meets long-term resource needs." AR 1648. The SFEIS and ROD are silent as to the Project's compliance with this requirement, and do not explain what the long-term resource needs are or how the Project meets them. The Forest Service must also provide some analysis that it meets this substantive requirement.

The SFEIS and ROD fail to comply with Forest Plan road density requirements. Hunters' and Guardians' Motions for Summary Judgment should be granted as to their road density claims, and defendant's Motion should be denied.

D. Protection of Elk under NEPA

Plaintiffs' arguments regarding the protection of elk under the NMFA and the Forest Plan overlap in some regards with their arguments regarding NEPA violations. To the extent that plaintiffs rely on the requirements of NEPA, the Court's analysis follows.

1. Elk Security Habitat

Hunters argue that the Project fails to provide "high quality habitat for elk and deer," as the Forest Plan and NFMA require. *See* AR 1676. The SFEIS provides that elk security habitat consists of forest land in blocks of 250 acres which are located at least one half mile from open motorized routes. AR 25511, 25533. Hunters object to the Forest Service analysis of elk security habitat in conjunction the road density analysis as explained above. By failing to accurately and consistently analyze the impact of user-created roads on habitat, they argue the Forest Service has failed to take a hard look at these impacts under NEPA.

Hunters also argue that the Forest Service failed to ensure the scientific integrity of the elk security habitat analysis. They argue that the SFEIS inaccurately characterized research and science on elk security habitats from motorized vehicle impacts. Defendants cite to numerous scientific studies to support the SFEIS with regard to elk security habitat.

In formulating an EIS, an agency must "insure the professional integrity, including scientific integrity, of the discussions and analyses." 40 C.F.R. § 1502.24. "This duty require[s] the USFS to disclose its methodologies and scientific sources." *Save the Peaks Coal. v. U.S. Forest Serv.*, 669 F.3d 1025, 1038 (9th Cir. 2012). The agency must "explain the conclusions it has drawn from its chosen methodology." *Lands Council v. McNair*, 537 F.3d 981, 994 (9th Cir. 2008), *overruled on other grounds, Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7 (2008). The court must defer to scientific judgments and technical analyses within the agency's

expertise. *Balt. Gas & Elec. Co., v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 103 (1983). Nonetheless, the court must independently review the record and determine whether the agency made a reasoned decision based on its evaluation of the evidence. *League of Wilderness Defenders*, 689 F.3d 1060, 1073 (9th Cir. 2012).

In defining elk security habitat, the SFEIS used certain distance and area criteria as "key indicators" to determine the Project's effects on elk. AR 25511, 25533. In support of these "key indicator" metrics, the SFEIS cited to numerous studies, including *Hillis* (1991), *Rowland* (2005), *Naylor* (2009), *ODFW* (2008), and *Gaines* (2003). AR 25513-16. Hunters argue that these studies do not support the key indicator distances used in the SFEIS, and that the SFEIS inaccurately characterizes the studies. Hunters argue that the SFEIS and ROD omit a 30% minimum acreage requirement for elk security areas that *Hillis* provides; that the SFEIS improperly cites to *Rowland* for a ½-mile threshold from open road for security habitat; that the *Naylor* Starkey study does not state that a distance above 1290 meters from open road would not greatly affect elk distribution; that *ODFW* and *Gaines* do not support an assumption that the greatest impacts to elk occur within ¼ mile of roadways; and that the Starkey research does not support the decision to "ignore" closed roads and user-created trails.

In making its findings, the Forest Service did not rely solely on these studies for the findings plaintiffs object to; the Forest Service relied on other studies and other sources of data. An agency is not obligated to adopt the specific findings of any particular study. *Kern Co. Farm Bureau v. Allen*, 450 F.3d 1072, 1080-81 (9th Cir. 2006). For instance, as to impacts to elk habitat, the SFEIS references and summarizes the findings of several studies in an analysis of habitat effectiveness. AR25512-13 (citing, e.g., *Wisdom* (2005) and *Rowland* (2005)). The Forest Service did not ignore or selectively utilize any of these studies, but used them along with

others to perform its analyses. Similarly, regarding the Starkey study, the Forest Service relied on a competing view of distance from open roads and elk distribution from its Wildlife Biologist. When specialists express conflicting views, the agency has the discretion to rely on the reasoned opinions of its own experts, "even if, as an original matter, a court might find contrary views more persuasive." *Marsh*, 490 U.S. at 378; *see also Friends of Endangered Species, Inc. v. Jantzen*, 760 F.2d 976, 986 (9th Cir. 1985) (holding that, under NEPA, court not required to resolve disagreements among scientists as to methodology). The Forest Service's reliance on its own expert's findings was reasonable and not arbitrary and capricious as far as that analysis addressed open roads and elk habitat.

The Court is not permitted to substitute plaintiffs' opinions for the agency's scientific judgment. *Protect Our Cmtys. Found. v. Jewell*, 825 F.3d 571, 583 (9th Cir. 2016). In practice, plaintiffs' arguments seek to impose a requirement that the Forest Service address every argument in every study cited. But this is beyond the agency's NEPA obligations. *See Earth Island Inst. v. U.S. Forest Serv.*, 697 F.3d 1010, 1021 (9th Cir. 2012) ("Though the Forest Service did not perform the point-by-point type of counter-argument to experts that Plaintiffs appear to desire, our precedent makes clear that an agency need not respond to every single scientific study or comment." (quotations and citation omitted)).[12]

Regardless of the agency's scientific analysis of distance from open roads, the failure of the Forest Service here is that it did not take a hard look at elk security habitat vis-a-vis open and closed user-created roads. This failure of the Forest Service results in an arbitrary and capricious decision under NEPA. Defendant's Motion for Summary Judgment should be granted as to Hunters' scientific integrity claims, and Hunters' Motion denied; otherwise, each plaintiff's

[12] Plaintiffs' arguments regarding displacement of elk onto private land are ultimately variations on these critiques of the cited scientific studies, and for the same reasons are unsuccessful.

Motion for Summary Judgment should be granted as their to claims concerning elk security habitat and roads, and defendant's Motion denied.

2. Calving and Rutting Areas

LandWatch argues that the Forest Service failed to collect data regarding elk calving and rutting sites. LandWatch contends that the lack of information, as opposed to a disagreement regarding how information is interpreted and applied, as to the current location and distribution of elk calving and rutting sites in the Project Area, violates NEPA. NEPA requires an agency to maintain and disclose adequate baseline data about resources it manages, to allow for evaluation of a project's impacts. *Neighbors of Cuddy Mountain*, 137 F.3d at 1379-80. The Forest Service cannot rely on future monitoring of calving sites and wallows, because data must be available during the EIS process and be available for public comment. *See N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1084-85 (9th Cir. 2011).

Defendants argue that the Forest Service has expanded these seasonal protections to include protections from trail use for known elk calving sites and wallows. However, the Project does not incorporate restrictions on trail *use*, nor does it identify known calving and rutting sites. The ROD and SFEIS language regarding seasonal protections on these sites encompasses only trail construction and maintenance activities, not use. Specifically, the ROD (as revised) reads:

> Timing restrictions will be placed on project construction, re-construction, decommissioning and maintenance activities from September 1 through October 15 . . . . Should any new calving areas be identified along the trail system where the character of the site may be affected due to disturbance, *this* seasonal restriction would be implemented for these areas in accordance with standards and guidelines outlined in the Forest Plan.

AR 28759-60 (emphasis added). "This" plainly refers to "construction, re-construction, decommissioning and maintenance activities," and does not include use. Defendants argue that the "context" of the Forest Service's responses to objections show that it was the agency's

"intention" for the Project to include seasonal restrictions on trail operation, but this was not written into the ROD or SFEIS. Defendants may not, during litigation, attempt to insert the term "trail operation" into the ROD where the Forest Service did not do so.

Regardless of defendants' purported protection of elk calving and rutting sites, it is difficult to determine how the proposed agency action here will have an effect on elk calving and rutting areas if defendants have not adequately identified those areas. Nor have defendants sufficiently articulated how those areas will be protected during the time OHV use overlaps with calving and rutting seasons. The failure to disclose and analyze direct, indirect, and cumulative effects of this information means that defendants have failed to take the "hard look" required under NEPA. *Klamath-Siskiyou Wildlands Ctr.*, 387 F.3d at 994-96. LandWatch's Motion for Summary Judgment should be granted as to its calving and rutting sites claims, and defendant's Motion should be denied.

3. Cumulative Impacts

Hunters argue that the SFEIS does not sufficiently analyze the Project's cumulative impacts with regard to other actions in the Project Area, specifically, livestock grazing, OHV use on user-created and closed roads, and elk harvest. LandWatch argues that the SFEIS does not consider cumulative impacts of the Project along with such activities as vegetation and fuels management and logging.

NEPA requires that the Forest Service disclose and analyze the direct, indirect, and cumulative impacts and consequences of its actions. 40 C.F.R. §§ 1502.16 & (b), 1508.25(c), 1508.27(b)(7). "Cumulative effects" include "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions . . . [and] can result from individually minor but collectively

significant actions taking place over a period of time." 40 C.F.R. § 1508.7. A cumulative impacts analysis requires "some quantified or detailed information; . . . [g]eneral statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided." *Ocean Advocates v. U.S. Army Corps*, 361 F.3d 1108, 1128 (9th Cir. 2004), *opinion amended*, 402 F.3d 868. This analysis "must be more than perfunctory; it must provide a useful analysis of the cumulative impacts of past, present, and future projects," *Kern v. U.S. Bureau of Land Mgmt.*, 284 F.3d 1062, 1075 (9th Cir. 2002), and explain how "individual impacts might combine or synergistically interact with each other to affect the . . . environment," *Klamath-Siskiyou Wildlands Ctr.*, 387 F.3d at 997 (quotation omitted). "Courts accord substantial deference to an agency's determination of the scope of its 'cumulative effects' review." *Cascadia Wildlands Project v. U.S. Forest Serv.*, 386 F. Supp. 2d 1149, 1167 (D. Or. 2005).

Hunters contend that the SFEIS fails to sufficiently address cumulative effects of elk harvest. The SFEIS acknowledges effects to deer and elk habitat from "increased legal and illegal harvest." AR 25512. It cites to the *Rowland* Starkey study regarding direct impacts on elk harvest from road and road traffic. *Id.* It then discusses effects from legal and illegal harvest at length. AR 25516. It also acknowledges that "increased motorized route densities . . . may combine with the effects of fuel and vegetation management projects and may result in an increase in legal and illegal harvest of deer and elk because of more vehicular access and easier visibility due to reduced understory cover." AR 25531. While plaintiff acknowledges that the Forest Service discusses the Project in conjunction with legal and illegal elk harvest, plaintiff does not indicate what other cumulative effects in this regard need be reviewed. The SFEIS adequately reviews cumulative impacts as to elk harvest.

LandWatch contends that the SFEIS fails to consider the cumulative effects of vegetation treatment projects. The SFEIS analyzed the Project's potential cumulative impacts on elk habitat in connection with vegetation treatment in areas overlapping the Project Area. AR 25277, 25531-32. It acknowledged that "potential cumulative impact of disturbance to big game animals" from vegetation management along with disturbance from OHV trail use, but found these changes not sufficiently significant to alter habitat effectiveness. AR 25531-32. This cumulative impacts discussion of habitat effectiveness cites detailed and quantified data. *Id.* The SFEIS sufficiently analyzes vegetation and fuels management as to elk security habitat.

Hunters contend that livestock grazing occurs in the Project area but that the SFEIS fails to address the cumulative impacts of grazing on elk habitat. Hunters have not provided any studies or rationale for why the Forest Service would have been required to address the cumulative impacts of grazing along with the Project. Hunters cite two mentions in the SFEIS to continued grazing, but this does not amount to a mandate that such grazing be the subject of a cumulative effects analysis. The Forest Service has the discretion to select the appropriate factors for cumulative impact review. *See Cascadia Wildlands Project*, 386 F. Supp. at 1167.[13]

Plaintiffs argue that OHV use of user-created and closed roads should be included in the cumulative impacts analysis. Defendants argue that the Forest Service adequately considered the effects of such roads, pointing to this phrase from the SFEIS: "many closed or decommissioned roads that are still receiving motorized use." AR 25532. However, this reference falls far short of the "useful" analysis with "quantified or detailed information" that NEPA requires; it is not even a general conclusion about such effects. Additionally, the Forest Service did not adequately

[13] The Forest Service may have an obligation to consider connectivity of elk security habitat, as plaintiff argues. This may factor into road density analysis as it pertains to user-created roads and closed roads, but such a consideration would be difficult to consider without a clear picture of the impact of all roads on elk security habitat.

analyze road density with regard to closed and user-generated trails, as discussed. The SFEIS thus does not contain a proper cumulative effects analysis of these closed and user-created roads.

The Forest Service's cumulative impacts analysis was insufficient, and arbitrary and capricious, as to the road density and user-created and closed roads analysis; as to these claims, each plaintiff's Motion for Summary Judgment should be granted, and defendant's Motion denied. The cumulative impacts analysis regarding LandWatch's and Hunters' other claimed deficiencies, however, was sufficient, and as to those issues, defendant's Motion for Summary Judgment should be granted and LandWatch's and Hunters' Motions denied.

V. Riparian Claims: Redband Trout and INFISH

Plaintiffs bring multiple claims regarding the Project's impacts on Project Area watersheds. LandWatch argues that defendants violated NEPA and NFMA with regard to the Redband trout, a species native to the area, by not conducting a proper baseline analysis of sediment impacts, and by violating the Inland Native Fish Strategy. Guardians argue that defendants violated NFMA by failing to protect riparian habitats from recreational impacts.

A. The Inland Native Fish Strategy

In 1995, the Forest Service adopted the Inland Native Fish Strategy ("INFISH") to address the risk of loss of native fish populations and reduce potential negative impacts to fish habitat; INFISH amends the forest plans of twenty-two forests, including the Ochoco Forest Plan, adding substantive standards for fish habitat conditions and function. AR 2546-49. INFISH identifies six Riparian Management Objectives ("RMOs") to assess and define good riparian habitat, i.e., habitat "indicators": (1) pool frequency, (2) water temperature, (3) large woody debris, (4) bank stability, (5) lower bank angle, and (6) width/depth ratio. AR 2564, 2679. RMOs "provide the criteria against which attainment or progress toward attainment of the

[INFSH] riparian goals is measured." AR 2564. "RMOs provide the target toward which managers aim as they conduct resource management activities across the landscape." *Id.* RMOs are "benchmarks against which to measure progress towards ultimate goals." *Cent. Or. LandWatch v. Connaughton*, 696 F. App'x 816, 818 (9th Cir. 2017). Specifically, INFISH provides for protection of Redband trout in the Project area. AR 25351.

INFISH also establishes Riparian Habitat Conservation Areas ("RHCAs"), which "are portions of watersheds where riparian-dependent resources receive primary emphasis, and management activities are subject to specific standards and guidelines." AR 2566. INFISH standards and guidelines "apply to all RHCAs and to projects and activities in areas outside RHCAs that are identified through NEPA analysis as potentially degrading RHCAs." AR 2568.

INFISH RM-1 requires the Forest Service to

> [d]esign, construct, and operate recreation facilities, including trails and dispersed sites, in a manner that does not retard or prevent attainment of the [RMOs] and avoids adverse effects on inland native fish. Complete watershed analysis prior to construction of new recreation facilities inside [RHCAs] within priority watersheds.

AR 2571. "Watershed analysis" is a procedure for gathering critical baseline information on watershed function. AR 2637, 2683. To "retard" means to slow the rate of recovery below the near natural rate of recovery if no additional human caused disturbance was placed on the system. AR 2565. "Adverse effects" include short- or long-term management-related impacts of an individual or cumulative nature, such as mortality, reduced growth, or other adverse physiological or behavioral changes. AR 2672.

There are nine watersheds, within which there are numerous subwatersheds, in the Project Area, with 138 miles of fish-bearing streams. AR 25365. INFISH RM-1 requires a watershed analysis for each of the nine watersheds within the Project area.

B. NFMA and NEPA Application

LandWatch argues that the Forest Service violated NEPA and the NFMA in concluding that the Project's impacts, additive to existing conditions, were not likely to affect Redband trout habitat. It argues that the Forest Service violated INFISH by not conducting an adequate watershed analysis in the Project area. It argues that the Forest Service failed to accurately assess current conditions in the watersheds because the Forest Service used historical data that was not current to describe steam conditions. Specifically, LandWatch argues that the agency lacked a rational basis for its conclusion because: (1) it did not properly account for baseline stream conditions, and (2) it did not consider cumulative sediment delivery.

1. Baseline Conditions

The Forest Service analyzed watersheds in the Project area and discussed direct and indirect effects for each alternative plan to create OHV trails. The chosen alternative proposes 15.2 miles of new construction plus opening closed/decommissioned roads within 300 feet of streams. AR 25444. The Forest Service included in the SFEIS stream surveys conducted in the Ochoco National Forest between 1999-2003 and 1989-2014. AR 25355. A Watershed Condition Framework including water quality, habitat access, and habitat elements was constructed and analyzed for streams within 300 feet of proposed trails. AR 25364-25401. Effects common to all the alternatives analyzed by the Forest Service were included. Sedimentation, water temperature, and large woody debris were discussed. AR 25403. While some short-term effects were recognized, the Forest Service concluded that none of the proposed alternatives would change any of the ratings for streams within 300 feet of trails. AR 25403.

LandWatch argues that the surveys do not accurately depict current stream conditions because key data is missing and the data is stale. *Great Basin Res. Watch v. U.S. B.L.M.*, 844

F.3d 1095, 1101 (9th Cir. 2016). Reliance on the data included in the SFEIS was not arbitrary or capricious. An agency need not measure actual baseline conditions in every situation. *Id.* Violations may occur if an agency has simply ignored existing data, *Cent. Or. LandWatch v. Connaughton*, 905 F. Supp. 2d 1192, 1197 (D. Or. 2012), but that has not happened here. The Forest Service has included not only surveys, but conditions of watersheds and subwatersheds, such as stream temperatures which were monitored to determine average temperatures. AR 25357. It relied on other data to establish habitat baseline: "research, relevant monitoring, field data, experience and professional judgment, as well as GIS information to provide the context, amount and duration of potential effects on aquatic resources from the [Project]." SR 25371.[14] In order to address the construction of trails on flow and sediment in streams, the existing conditions of road densities, drainage densities, and intermittent and perennial stream crossing densities were estimated and rated relative to one another for each analyzed subwatershed. AR 25362.[15] LandWatch has not shown that these surveying and monitoring data were likely incorrect. *League of Wilderness Defs. v. Connaughton*, 752 F.3d 755, 763 (9th Cir. 2014) ("[T]here was no reliable evidence that showed their results were incorrect . . . so we cannot say that the USFWS and USFS' reliance on the surveys was arbitrary or capricious."). The Forest Service's analysis of baseline conditions in the Project Area is entitled to deference and does not violate NEPA. *Earth Island Inst.*, 697 F.3d at 1020.

2. Cumulative Sediment Delivery

LandWatch argues that the Forest Service violated NEPA because its assessment of cumulative effects on aquatic habitats failed to account for "important aspects of the problem,"

[14] *See also* AR 25371, 25414, 25374, 25377-78, 25386-87.

[15] Guardians contend that road densities were not considered by the Forest Service, contrary to NFMA. However, road densities were a part of the Forest Service's analysis regarding baseline conditions and sediment issues.

namely, grazing and unauthorized OHV use in the Project Area, both of which LandWatch argues cause significant degradation of aquatic resources. LandWatch argues that the Forest Service thus failed to take a "hard look" at sediment impact to aquatic habitat.

However, the Forest Service did consider OHV use in modeling sediment delivery from use of OHV routes, as compared to levels of background sediment. AR 25364, 25425. Also, the SFEIS addresses effects to watershed health—hydrology and aquatic species—specifically as to cumulative effects, including grazing activities. AR 25447-64. The SFEIS captured the effects of past grazing and unauthorized OHV use by using current environmental conditions as a proxy for the impacts of past actions. AR 25275-76. This satisfies the Forest Service's NEPA obligations in assessing sediment impacts. *Cascadia Wildlands v. Bureau of Indian Affairs*, 801 F.3d 1105, 1111 (9th Cir. 2015) ("An agency . . . may satisfy NEPA by aggregating the cumulative effects of past projects into an environmental baseline, against which the incremental impact of a proposed project is measured.").

Additionally, the SFEIS determined that "cumulative effects from future and ongoing projects to [aquatic resources] are anticipated to be negligible." AR 25456, 25459. The SFEIS identified and described twenty-five "[f]uture and ongoing projects," and examined their cumulative effect on flow and sediment, sediment/turbidity, and aquatic species by quantitatively analyzing their effect on, among other things, road/trail densities and stream crossings. AR 25447-66.[16] In light of this analysis, as well as consideration of the cumulative effects of the other future and ongoing projects, the Forest Service determined that "there are no measurable increased cumulative effects beyond those effects described in the 'Direct and Indirect Effects' section relative to the flow and sediment regimes within the watersheds that overlap the [Project]

[16] The SFEIS also noted that management of grazing in the Project Area had improved and that "[a]ctive rehabilitation of user-created trails would make them less usable to cattle." AR 25456.

area." AR 25459, 25460-64, 25456-57. This analysis provided the necessary "hard look" at the Project's potential environmental consequences, which permitted informed decisionmaking and public participation. The Forest Service fulfilled its NEPA obligations in this regard. The SFEIS provided a "useful analysis of the cumulative impacts of past, present and future projects" on aquatic resources. *Muckleshoot Indian Tribe v. U.S. Forest Serv.*, 177 F.3d 800, 810 (9th Cir. 1999) (quotation omitted).

3. Analysis of Lower Deep Creek Subwatershed

LandWatch argues that the Forest Service analysis was particularly flawed regarding the Lower Deep Creek subwatershed.[17] The Forest Service analyzed road densities for Lower Deep Creek as compared to other alternatives. AR 25445. Road densities were rated "high" within the 300 feet of Lower Deep Creek and included an addition of five stream crossings. *Id.* Conditions regarding water quality, flow, sediment, and turbidity in the subwatershed were rated "fair" to "poor." AR 25385. As indicated in the SFEIS and the Deep Creek Restoration Plan, a 2009 Forest Service document, the Deep Creek Watershed, including Lower Deep Creek, experienced declines in stream health and trout population. Some roads have been closed, which has helped to stabilize the watershed. AR 25385. Redband trout density in Lower Deep Creek declined from 1997 to 2003 but increased somewhat from 2006 to 2012. AR 25396. Stream conditions in Lower Deep Creek have fair to poor ratings, except for stream crossing and drainage density. AR 25399. The SFEIS points out that the Deep Creek Watershed Restoration Project was designed to "improve overall stream and riparian health and integrity within the watershed and to

[17] Federal defendants argue that LandWatch waived any argument regarding INFISH consistency and a watershed analysis of Lower Deep Creek by not raising this specific objection during the administrative process. However, LandWatch registered objections regarding INFISH criteria, modification of RMOs, and Lower Deep Creek. AR 26790-91. This is sufficient notice to the agency. *Lands Council v. McNair*, 629 F.3d at 1076.

improve water quality and associated habitat suitable for use by redband trout and other aquatic life." AR 25449. Some of the objectives of the restoration project have been accomplished, including decommissioning of 4.3 miles of road in Lower Deep Creek. AR 25450.

In assessing baseline conditions for Lower Deep Creek, the Forest Service relied on the Deep Creek Restoration Plan data. AR 25385. *See Great Basin Res. Watch*, 844 F.3d at 1101. Past and present intervening forest management activities (wildfires, logging, grazing, etc.) may have impacted aquatic conditions and degraded aquatic habitat. *Id.* Nonetheless, the Forest Service's reliance on this data was not arbitrary or capricious. *Gr. Basin Res. Watch*, 844 F.3d at 1101 ("An agency need not conduct measurements of actual baseline conditions in every situation—it may estimate baseline conditions using data from a similar area, computer modeling, or some other reasonable method.").

Relying on this data regarding Lower Deep Creek, the Forest Service issued its general conclusion that the Project would have no measurable effect on Redband trout:

> In response to specific comments, changes were made to [the Project] in order to avoid trails being located on roads planned for decommissioning as part of the Deep Creek Environmental Assessment, as well as to avoid specific areas of hydrologic concern. [The Project] avoids these areas of specific concern within the sediment delivery zone, resulting in a slight decrease in the overall road/trail densities within 300 feet of streams in the . . . Lower Deep Creek . . . Subwatersheds.

AR 25444. The Forest Service took the requisite "hard look" at the Lower Deep Creek subwatershed and the effects of the Project on Redband trout.

Federal defendants also argue that, contrary to LandWatch's contention, a watershed analysis specific to Lower Deep Creek was not required. Watershed analyses are required prior to construction of new recreation facilities "within priority watersheds." AR 2571 (RM-1). The SFEIS states that the Lower Deep Creek is a priority subwatershed, but that is specifically "as

defined by the Forest Service Watershed Condition Framework Process." AR 25395. The Lower Deep Creek is not a priority watershed designated under INFISH to which the watershed analysis requirement necessarily applies. AR 2575, 25352-53. In any event, the Forest Service performed an adequate analysis of the Lower Deep Creek subwatershed.

C. INFISH Standards and Guidelines

1. Modification of RMOs and Consistency with INFISH Standards

Whether or not the Forest Service was required to do a watershed analysis, LandWatch argues that the Forest Service modified Riparian Management Objectives in violation of INFISH. Under INFISH, if the Forest Service does not complete a watershed analysis before modifying an RMO, the modification must be supported by "stream reach specific data," including "rationale supporting the change." AR 2564. The SFEIS states that "INFISH Riparian Management Objectives that will be discussed in this report relate to pools, temperature, large woody debris and bank stability." AR 25351. These RMOs would be indicators of effects to Redband trout habitat as a result of OHV proposals and, while not an RMO, sediment would also be discussed as an indicator of such effects. *Id.*

The Forest Service argues that it has provided sufficient justification for its modification of RMOs for large woody debris, stream temperature, and width/depth ratios. For the Project, the Forest Service argues it developed RMOs "describing good habitat . . . to describe desired conditions for fish habitat," more exacting than INFISH standards, including for Redband trout habitat. AR 25351. *See Great Old Broads for Wilderness v. Kimbell*, 709 F.3d 836, 851 (9th Cir. 2013) (holding that the court must defer to Forest Service's interpretation of INFISH standards "unless it is plainly erroneous or inconsistent with the standard").

The Forest Service analyzed habitat indicators, and specific criteria were used to determine how well each indicator functioned in the watersheds. AR 25355-64. These indicators are water quality, including stream temperature and sediment/turbidity; habitat access, including physical barriers to fish passage; and habitat elements, including large woody material, pool frequency and quality, and channel width/depth ratios. Each indicator described a properly functioning standard (good), a functioning at risk standard (fair), and a not properly functioning standard (poor). *Id.* Watersheds and subwatersheds within the Project Area containing streams within 300 feet of proposed trails were analyzed, including Deep Creek and Lower Deep Creek.

The Forest Service analyzed the RMOs for stream temperature based on references concerning the size of, and average temperatures of, streams where Redband trout are typically found, and the average maximum temperatures suitable for spawning. AR 25355-57. It considered the width/depth ratio RMO by adopting the more nuanced *Rosgen* (1996) stream system. AR 25356-61; SR 942. These studies provided specific data for the Forest Service, applying its expertise, to modify the RMOs, under the deferential standard. *See Lands Council v. McNair*, 537 F.3d at 994 (holding that the Forest Service does not act arbitrarily or capriciously where it "support[s] 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").

2. Retardation or Prevention of Attainment of RMOs

INFISH requires that trail design, construction, and operation be done "in a manner that does not retard or prevent attainment of the [RMOs] and avoids adverse effects on inland native fish." AR 2571 (RM-1). For site-specific projects, the Forest Service must apply RMOs through a "thorough analysis" of whether the project will retard the near natural rate of recovery. AR 2565. Here, the Forest Service concluded that the Project is "within INFISH requirements and

direction," and that "all action alternatives would neither retard nor prevent attainment of the [RMOs], as long as the appropriate Project Design Criteria are followed during construction and long-term maintenance." AR 25466.

LandWatch argues that these are summary conclusions, and lack sufficient analysis, data, and explanation, specifically regarding how the Project is consistent with INFISH. It argues that, although the SFEIS admits short-term impacts from Project construction, *see, e.g.*, AR 25446, 25469, the SFEIS and ROD do not explain how these impacts would neither retard nor prevent RMO attainment. LandWatch also argues that the Forest Service has not explained how long-term impacts from the Project would be consistent with INFISH. It argues that the Forest Service's claim that the Project would be more beneficial in the long-term as compared to unregulated travel in the Project Area does not establish INFISH consistency.

The SFEIS examined the Project's effects on RMOs, including stream temperature, large woody debris, and width-depth ratios, and concluded that there would be little to no effect. AR 25402-03. While acknowledging that construction activity would have short-term effects, the Forest Service found that the Project, by incorporating project design criteria and best management practices, would minimize sediment delivery, and, because little riparian vegetation would be removed, would have no effect on stream temperatures. *Id.* Likewise, because design criteria prevent removal of shade trees, there would be no reduction of shade, and no increase in stream temperatures. *Id.* The Forest Service found that the Project would have "very limited" effects on large woody debris; although some would be removed at stream crossings, the material would be moved up- or downstream to maintain debris numbers. *Id.* The Forest Service found that the Project would have "very limited" effects on width/depth ratios. AR

25403. Stream crossings would be designed to meet the ratios, removal of bank-stabilizing vegetation would be minimal, and the Project would contribute insignificant sediment. *Id.*

In addition, the Forest Service summarized the effects of the chosen alternative regarding flow sediment, stream crossing density, turbidity, road/trail density, and sediment loading by comparing the chosen alternative to other proposals. SR 25439-47. The Forest Service concluded that the Project "would have no measurable effect on Redband trout . . . in all project subwatersheds." AR25446. These conclusions are supported by sufficient reasoning and analysis, and were not arbitrary or capricious. Contrary to LandWatch's arguments, the Forest Service did not fail to explain how impacts to aquatic habitats would not retard or prevent RMO attainment. *See League of Wilderness Defs. v. U.S. Forest Serv.*, 445 F. Supp. 2d 1186, 1199 (D. Or. 2006) (finding no INFISH violation where the "administrative record does not clearly show that there will be significant negative impacts to Redband trout"), *rev'd in part on other grounds*, 549 F.3d 1211 (9th Cir. 2008). The Forest Plan requires that the Forest Service consider how the Project will affect riparian habitats and this was done, especially with regard to long-term effects. There was no violation of INFISH standards.

As to the riparian claims, including regarding Redband trout, INFISH, baseline conditions, sediment delivery, and RMOs, defendant's Motion for Summary Judgment should be granted, and LandWatch's and Guardians' Motions should be denied.

VI. Travel Management Rule Claims

Guardians argue that the Project fails to comply with the Travel Management Rule's ("TMR") minimization criteria as to the designation and location of routes within the Project.

A. Executive Order 11644 and the Travel Management Rule

Executive Order 11644 directs "agencies to promulgate regulations that require that all 'areas and trails' allowing off-road vehicles ('ORVs') on public lands be located in areas that"

> (1) . . . minimize damage to soil, watershed, vegetation, or other resources of the public lands[;]
> (2) . . . minimize harassment of wildlife or significant disruption of wildlife habitats[; and,]
> (3) . . . minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.

WildEarth Guardians v. Mont. Snowmobile Ass'n, 790 F.3d 920, 929 (9th Cir. 2015) (footnote omitted) (quoting Exec. Order 11644 §§ 3(1)-(3) ("Use of Off-Road Vehicles on the Public Lands") (Feb. 8, 1972)). The TMR, 36 C.F.R. Part 212, was promulgated in 2005 "to improve implementation of the executive orders and establish a national system of roads, trails, and areas with restricted ORV use." *Mont. Snowmobile Ass'n*, 790 F.3d at 929. It requires National Forests to specify routes, vehicle types, and seasons of motorized travel on roads, trails, and other areas. 36 C.F.R. §§ 212.50(a), 212.51(a). It prohibits motor vehicle use off designated roads and trails and outside designated areas. *Id.* §§ 212.50(a), 261.13.

In designating roads, trails, and areas, the Forest Service must

> consider effects on National Forest System natural and cultural resources, public safety, provision of recreational opportunities, access needs, conflicts among uses of National Forest System lands, the need for maintenance and administration of roads, trails, and areas that would arise if the uses under consideration are designated; and the availability of resources for that maintenance and administration.

Id. § 212.55(a). The Forest Service must also

> consider effects on the following, with the objective of minimizing:
> (1) Damage to soil, watershed, vegetation, and other forest resources;
> (2) Harassment of wildlife and significant disruption of wildlife habitats;

> (3) Conflicts between motor vehicle use and existing or proposed recreational uses of National Forest System lands or neighboring Federal lands; and
> (4) Conflicts among different classes of motor vehicle uses of National Forest System lands or neighboring Federal lands.
> In addition, the responsible official shall consider:
> (5) Compatibility of motor vehicle use with existing conditions in populated areas, taking into account sound, emissions, and other factors.

Id. § 212.55(b). These are known as the "minimization criteria." *Mont. Snowmobile Ass'n*, 790 F.3d at 930. "[T]he TMR requires the Forest Service to apply the minimization criteria to each area it designated for" OHV use. *Id.* "[T]he Forest Service must provide a more granular minimization analysis to fulfill the objectives of" the TMR." *Id.* at 931. "What is required is that the Forest Service document how it evaluated and applied the" TMR analysis "on an area-by-area basis with the objective of minimizing impacts as specified in the TMR." *Id.* "[M]ere consideration of the TMR's minimization criteria is not sufficient to comply with the regulation." *Id.* at 932. "Rather, the Forest Service must apply the data it has compiled to show how it designed the areas open to [OHV] use with the objective of minimizing damage to" various forest resources. *Id.* (quotation omitted). "The TMR is concerned with the effects of each *particularized area and trail designation*." *Id.* (emphasis added).

B. Application of the Travel Management Rule

The SFEIS fails to demonstrate application of the TMR minimization criteria, with regard to minimizing effects on forest resources and conflicts among motor vehicle use and existing recreational use, specifically, as to how trail routes were designated, i.e., located. How the routes comply with the minimization criteria, specifically as to how they are located and designated to minimize these effects, is not explained. The Forest Service did not properly analyze how trail designation would minimize impacts to special landscapes, such as scablands and old growth management areas, and to wildlife and wildlife habitats, particularly with regard to elk calving

sites and wallows. It also failed to sufficiently analyze how trail designation would minimize conflict among other users of roads and trails, such as equestrians and hikers. The Forest Services' analysis of water quality, particularly with regard to sediment and stream crossings, adequately meets INFISH standard, but falls short of the minimization standard required by the TMR.[18]

Defendants argue that they extensively considered the objective of minimizing impact to forest resources, citing Chapter 3, Part 212 ("Travel Management"), Subpart B of the SFEIS, "Designation of Roads, Trails, and Areas for Motor Vehicle Use." AR 25676-80. However, this portion of the SFEIS contains only a brief and cursory discussion with only general statements about attempts to comply with the minimization criteria. This fails to demonstrate, at the "granular" area- and trail-level, how routes were designated or located, how the minimization criteria were evaluated and implemented, how data was applied, or how impacts were minimized. *Cf. Mont. Snowmobile Ass'n*, 790 F.3d at 930-32. At best, this discussion amounts to mere "consideration" of the minimization criteria and TMR, which is insufficient. *Id.* at 932.

Defendants argue that the final project alternative was chosen from proposed alternatives on the basis that it was the environmentally preferable alternative under NEPA, and that the chosen alternative would cause less impact than the others. But purported compliance with NEPA, and an argument that the chosen proposal was superior to other alternatives, does not address the TMR requirement that the SFEIS properly analyze and apply the minimization criteria, as to designation of motor vehicle routes, and demonstrate how the relevant impacts

[18] The Forest Service TMR analysis fails to consider route selection regarding the 17.3 miles of new routes within 300 feet of streams, including 12.4 miles within RHCAs, and 183 stream crossings. AR25273, 25443-45. The Forest Service acknowledged the detrimental effects of such routes on riparian areas. *See* AR 25273, 25341, 25440-46, 27030. During the administrative process, Guardians submitted scientific studies regarding recommendations for minimizing such effects. *See, e.g.*, AR 27020-21, 27053-65.

were minimized, especially with regard to the impacts on the gray wolf and elk. Defendants cite *Pryors Coalition v. Weldon*, 551 F. App'x 426 (9th Cir. 2014), to argue that their consideration of the minimization criteria was sufficient. The EIS in *Pryors Coalition* reflected "voluminous records" where "numerous alternative plans for route designations" were considered, and the chosen alternative was modified in numerous ways as to specific route designations and individual environmental resources, with certain resource impacts targeted. *Id.* at 429-30. In that case, "site-specific locations" were analyzed, *id.* at 432, unlike here, where the SFEIS falls short of the degree of analysis and level of specificity.[19]

Defendants attempt to rely on project design features of the Project, as well as the SFEIS environmental analysis, to show compliance with the TMR. Defendants argue that minimization of effects occur in the analysis of the environmental impacts of the Project. However, this is not the same as an analysis and application of how the Forest Service sought to minimize such impacts with regard to the designation of routes. Education, enforcement, increased compliance, maintenance, and monitoring may all serve to reduce impacts, but this does not meet the TMR's requirement to show application of the criteria to minimize impacts when locating routes. The degree of deference to be afforded an agency in its administrative decisionmaking process and its

[19] With regard to route designation, Guardians also argue that defendants violated NEPA by not providing adequate baseline data regarding Project routes through scablands. Although Guardians' arguments repeat broad calls for "accurate" and "relevant" baseline data, the only specific datum Guardians call for is regarding whether routes through scablands would be on open system roads, closed roads, or non-system roads. Guardians otherwise do not indicate how the Forest Service's provision of data regarding routes through scablands was deficient. In any event, the SFEIS provided the total number of trail miles through scabland areas under each action alternative that would be on newly constructed trails (new disturbance), on closed or decommissioned roads (existing disturbance), and on open roads. AR 25592. The ROD includes maps showing the routes through scablands on decommissioned or closed roads, on open roads, and on new trails. AR 28721-22. The Forest Service discussed the effects of the Project and how it minimize such effects.

application of its own expertise does not extend so far as to allow an agency to fail to comply with a specific, substantive mandate by reference to a distinct, nonresponsive analysis.

The SFEIS and ROD thus fail to comply with the TMR and the minimization criteria. Guardians' Motion for Summary Judgment should be granted, and defendant's Motion denied.

VII. Remedy

The APA "requires federal courts to set aside federal agency action that is 'not in accordance with law.'" *F.C.C. v. NextWave Pers. Commc'ns Inc.*, 537 U.S. 293, 300 (2003) (quoting 5 U.S.C. § 706(2)(A)). "If the decision of the agency is not sustainable on the administrative record made, then the decision must be vacated and the matter remanded for further consideration." *Fed. Power Comm'n v. Transcon. Gas Pipe Line Corp.*, 423 U.S. 326, 331 (1976) (quotation omitted). "Under the APA, the normal remedy for an unlawful agency action is to set aside the action. In other words, a court should vacate the agency's action and remand to the agency . . . ." *Se. Alaska Conservation Council v. U.S. Army Corps of Eng'rs*, 486 F.3d 638, 654 (9th Cir. 2007), *rev'd on other grounds*, 557 U.S. 261 (2009).

The Court finds no reason to depart from the standard remedy of vacatur in this case. "Whether agency action should be vacated depends on how serious the agency's errors are and the disruptive consequences of an interim change that may itself be changed." *Cal. Cmtys. Against Toxics v. U.S. E.P.A.*, 688 F.3d 989, 992 (9th Cir. 2012). Here, the Forest Service committed multiple substantive errors, as to multiple statutes, regulations, and rules. For the Forest Service to proceed with the Project without reconsideration of the SFEIS and ROD has the potential to affect multiple environmental resources, including sensitive elk habitat, and could impact the endangered gray wolf, absent consideration of whether formal Section 7

consultation is required. On the other hand, for the Forest Service to delay construction of recreational vehicle trails poses little risk of disruptive consequences or costly delay.

The Court may order remand *without* vacatur only "limited circumstances," *Cal. Cmtys. Against Toxics*, 688 F.3d at 994, which the Court finds do not apply here. Accordingly, the Court should VACATE the SFEIS and ROD and REMAND to the Forest Service for further proceedings consistent with these Findings and Recommendations.[20]

RECOMMENDATIONS

For these reasons, the Court should GRANT IN PART AND DENY IN PART the parties' Motions for Summary Judgment, as stated above. (Docket Nos. 48, 57, 58, 69). The Court should VACATE the Forest Service's decision and REMAND for further proceedings consistent with these Findings and Recommendations.

SCHEDULING ORDER

The above Findings and Recommendations will be referred to a United States District Judge for review. Objections, if any, are due September 10, 2018. If objections are filed, a response to the objections is due fourteen days after the date the objections are filed and the review of the Findings and Recommendations will go under advisement on that date.

IT IS SO ORDERED.

[20] Defendants argue that the parties previously agreed that the question of remedies would be subject to additional briefing, were the Court to find agency error, and that the Court determined that it would receive additional briefing on remedies; defendants cite to the December 8, 2017 Scheduling Conference transcript. *See* Sched. Conf. Tr. (Docket No. 82); Fed. Defs. Reply, Ex. 1 (Docket No. 83-1). However, careful reading of the transcript shows that, while the Court did entertain whether to separately address the question of remedies, and whether that would be subject to separate briefing, the Court did not make a determination on this question, did not formally order as such, did not bifurcate the case, and so forth. *See* Tr. 35-36. Further, the Court finds that this matter has received more than sufficient briefing and that further briefing is not called for. The Court finds that it may properly consider, and issue a recommendation on, the question of remedies based on the briefing and record presently before the Court.

DATED this 27th day of August, 2018.

/s/ Patricia Sullivan
PATRICIA SULLIVAN
United States Magistrate Judge

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ATTACHMENT B

LandWatch v. Kovarik, No. 2:20-cv-00648-SU

"Black Mountain"

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UNITED STATES DISTRICT COURT

DISTRICT OF OREGON

PENDLETON DIVISION

CENTRAL OREGON LANDWATCH, an Oregon non-profit corporation; and **OREGON WILD**, an Oregon non-profit corporation;

Plaintiffs,

v.

JOHANNA KOVARIK, in her official capacity as Paulina District Ranger; **A. SHANE JEFFRIES**, in his official capacity as Ochoco National Forest Supervisor; and the **UNITED STATES FOREST SERVICE**, a federal agency of the United States Department of Agriculture,

Defendants.

Case No. 2:20-cv-00648-SU

PLAINTIFFS' MOTION FOR SUMMARY JUDGMENT AND MEMORANDUM IN SUPPORT

Oral Argument Requested

MOTION

Plaintiffs Central Oregon LandWatch and Oregon Wild (collectively, "LandWatch") hereby submit their *Motion for Summary Judgment and Memorandum in Support*. Pursuant to LR 7-1, the undersigned certifies that the Parties have made a good faith effort to resolve the dispute but were unable to do so.

LandWatch challenges the final administrative actions by Defendants Johanna Kovarik, in her official capacity as Paulina District Ranger, A. Shane Jefferies, in his official capacity as Ochoco Forest Supervisor, and the United States Forest Service (collectively, "Forest Service" or "agency") that approved the Black Mountain Vegetation Management Project (the "Black Mountain Project" or the "Project") in the Ochoco National Forest (the "Forest"). The Black Mountain Project authorizes management activities on approximately 16,000 acres of national forestland, including logging, roadwork, prescribed burning, and restoration. LandWatch challenges those elements of the Project involving management activities in riparian areas and other sensitive habitats that pose significant threats to water quality and key habitats for many species including Rocky Mountain elk and native fish. LandWatch attempted to resolve its concerns by actively participating in the Project's administrative process, but the Forest Service largely rejected LandWatch's proposals and moved forward with 99% of the Project as planned.

LandWatch's claims against the Forest Service's Record of Decision ("ROD"), AR21452–593,[1] and Final Environmental Impact Statement ("FEIS"), AR17549–18151, arise under the National Forest Management Act ("NFMA"), 16 U.S.C. §§ 1600–1614, and the National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321–4370h. LandWatch respectfully moves the

[1] Citations to the record are to the Administrative Record ("AR") and Supplemental AR ("SUPP"). Leading zeros are omitted. A Table of Citations is appended to this brief, with a crosswalk between all cited documents and their location in the AR.

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Court for an order granting judgment in favor of LandWatch on Claims One, Two, and Three of its Complaint, ECF1. Because the Forest Service has approved a project in a manner that is inconsistent with its legal obligations, LandWatch respectfully requests that this Court grant LandWatch declaratory and injunctive relief:

A. Declare the Forest Service has violated NFMA and its implementing regulations by authorizing a project that is inconsistent with the governing forest plan;

B. Declare the Forest Service has violated NEPA and its implementing regulations by issuing the FEIS and ROD without satisfying its legal obligations to take a hard look at the direct, indirect, and cumulative impacts of the Black Mountain Project;

C. Declare the Forest Service's issuance of the FEIS and ROD is arbitrary, capricious, an abuse of discretion, not in accordance with, and/or without observance of procedure required by law under the APA, 5 U.S.C. § 706(2)(A), (D);

D. Partially vacate the Black Mountain Project FEIS and ROD and remand the FEIS to the Forest Service for additional consideration;

E. Issue preliminary and permanent injunctive relief prohibiting the Forest Service from authorizing implementation of the Black Mountain Project until such time as the Forest Service can demonstrate compliance with the requirements of NFMA, NEPA, and the APA;

F. Award LandWatch its reasonable fees, costs, expenses, and disbursements, including reasonable attorneys' fees associated with this litigation pursuant to the Equal Access to Justice Act or other applicable statutes; and

G. Grant such other additional relief as the Court deems just and proper.

In support of this Motion, LandWatch respectfully refers this Court to the following *Memorandum in Support* and declarations filed herewith.

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MEMORANDUM IN SUPPORT

TABLE OF CONTENTS

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GLOSSARY OF TERMS

Agency	United States Forest Service
APA	Administrative Procedure Act
AR	Administrative Record
dbh	Diameter at breast height (a unit of measure of the size of a tree)
DEIS	Draft Environmental Impact Statement
CEQ	Council on Environmental Quality
EIS	Environmental Impact Statement
Ex.	Exhibit
FEIS	Final Environmental Impact Statement
Forest	Ochoco National Forest
F&R	Findings and Recommendation
INFISH	Inland Native Fish Strategy
LandWatch	Central Oregon LandWatch and Oregon Wild, Plaintiffs
LWD	Large Woody Debris
NEPA	National Environmental Policy Act
NFMA	National Forest Management Act
mi	Miles
mi/mi^2	Miles per Square Mile (a unit of measure used to calculate route density)
MIS	Management Indicator Species
ODFW	Oregon Department of Fish and Wildlife
OHV	Off-highway Vehicle
RHCA	Riparian Habitat Conservation Area
RMO	Riparian Management Objective
ROD	Record of Decision
Route	Road or OHV Trail

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INTRODUCTION

On August 27, 2018, this Court issued its Findings and Recommendation ("F&R") in the Ochoco Summit OHV Trail System ("Summit OHV") case, No. 2:17-cv-01004-SU, *WildEarth Guardians v. Jeffries* ("*Guardians*"), 370 F. Supp. 3d 1208 (D. Or. 2018). On January 3, 2019, Judge Hernández adopted the F&R in full, with clarifications, except as to LandWatch's INFISH claim. *Id.* at 1223. The Summit OHV case contained explicit rulings about, *inter alia*, the Forest Service's management and analysis of road density, elk habitat, and riparian areas on the Forest.

At roughly the same time, the Forest Service was in the middle planning stages for the Black Mountain Project, *see* AR7916–8473 (DEIS, December 2018), a vegetation management project involving logging, roadwork, prescribed burning, and restoration. The Black Mountain Project area is within the boundary of the Summit OHV project, and involves the same resource considerations, including the road density issues, elk habitat, and riparian areas. *See* AR6469. Although there was still time before a final decision was reached to conduct additional analysis and reconfigure the Black Mountain Project, consistent with the decision in the Summit OHV case, the Forest Service instead proceeded with the Black Mountain Project in a manner that largely ignores the Summit OHV decision and is otherwise arbitrary, capricious, and contrary to law. AR17549–18151 (FEIS, July 2019); AR21452–593 (ROD, December 16, 2019).

First, even though this Court in the Summit OHV case held that the Forest Service's road density analysis was arbitrary and inconsistent with the Forest Plan, for the Black Mountain Project the agency once again has excluded a large fraction of roads that receive motorized use from its road density analysis, so as to artificially claim that "open" road density in the Project Area complies with the Forest Plan.

Second, this Court held unlawful the Forest Service's analysis of elk special habitats, noting in particular the failure to locate elk calving sites and wallows prior to the project decision in order

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to protect these critical habitats from disturbance. Rather than comply with this Court's ruling, for the Black Mountain Project the agency has disavowed any duty to locate elk special habitats during project planning and—directly contrary to this Court's decision—instead plans to collect information and attempt to mitigate impacts during project implementation.

Third, this Court ruled that the Forest Service must strictly comply with the mandates of the Forest Plan, as amended by the Inland Native Fish Strategy ("INFISH"), before authorizing management activities in riparian areas. Once again, however, for the Black Mountain Project the agency has proceeded as if the Summit OHV case does not exist, deviating from the governing management direction without following the explicit procedures required to do so.

By ignoring or dismissing this Court's earlier ruling, the Forest Service has failed to comply with its substantive Forest Plan duties under NFMA and failed to provide a full and fair analysis of the Project's impacts under NEPA. LandWatch respectfully asks this Court to reaffirm its earlier holdings that clarify the scope of the agency's legal duties.

Although the agency's errors are serious, and the Black Mountain Project authorizes management activities across a large Project Area (approximately 34,000 acres), LandWatch has carefully structured its opposition by focusing only on the impacts to the most sensitive habitats. LandWatch proactively tried to work with the agency prior to a final decision in an effort to reach a compromise, but these efforts were largely dismissed by the agency. LandWatch carries forward its pragmatic approach to this litigation. LandWatch's requested relief is narrow: Partial vacatur of the ROD and its authorization of logging activities and associated roadwork in riparian areas (approximately 700 acres), and remand to the Forest Service for a full and fair analysis of the Black Mountain Project's impacts on road density, elk special habitats, and riparian areas and water quality—consistent with this Court's ruling in the Summit OHV case.

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FACTUAL AND ADMINISTRATIVE BACKGROUND

I. The Black Mountain Project Authorizes a Suite of Management Activities Across Nearly 16,000 Acres in the Heart of the Ochoco National Forest.

A. The Project authorizes logging activities in riparian areas, which are among the most critical fish and wildlife habitats on the Forest.

The ROD authorizes approximately 15,763 acres of management activities across a 34,013-acres Project Area. AR21458–60. The Project Area sits just east of Big Summit Prairie in the geographic center of the 845,498-acre Ochoco National Forest. AR21587 (Project Area map); AR1377. Management activities include logging and associated roadwork, prescribed burning, and restoration in 355 "units." AR21484–505 (unit-by-unit description of management activities).

Logging activities include "commercial thinning,"[2] "non-commercial thinning,"[3] and "non-commercial hardwood enhancement."[4] The 4,980 acres of commercial thinning is expected to yield a total of 17.8 million board feet of merchantable lumber. AR21459.[5] Non-commercial thinning is authorized on all acres proposed for commercial thinning, and an additional 1,390 acres for a total of 6,370 acres. AR21459–60. Non-commercial hardwood enhancement is authorized on all 6,370 acres slated for commercial and non-commercial thinning, as well as an additional 99 acres. *Id.*

Prescribed burning activities are authorized across 15,113 acres. *Id.* In the units proposed for logging activities (6,469 acres) "activity generated fuels"—felled trees and branches, or "thinning

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[2] A logging activity that would remove tree species 7 inches up to 20.9 inches diameter at breast height ("dbh") for their commercial value, leaving a residual basal area of approximately 30 to 60 square feet per acre in drier sites and 50 to 100 square feet per acre on more productive sites. AR17953–54. "Basal area" refers to the cross-sectional area of all trees in a stand. AR18115.

[3] A logging activity that would be employed to reduce the amount of small conifer trees (up to 12 inches dbh) and junipers up to 20.9 dbh. AR17954–55. Felled trees would be left on site and not removed for their commercial value. *See id.*

[4] A logging activity that would remove conifers up to 20.9 dbh in proximity to hardwood (aspen and cottonwood) communities. AR17955. In some units, trees would be removed for their commercial value, and in others, felled trees would be left on site. *See id.*

[5] One board foot is 12"x12"x1" (144 cubic inches). One million board feet is abbreviated "MMBF," and is equivalent to roughly 200 logging trucks' worth of timber.

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slash"—would be subject to one of several fuels treatments, generally intended to burn or pile the activity generated fuels. *Id.*; *see also* AR6086. In addition, the Project authorizes burning of "naturally generated fuels" across 8,643 acres. AR21459–60.

Restoration activities include culvert replacement, riparian protection fencing, and stream restoration. AR21459. Culvert replacement is expected to cost $600,000. AR17905. Riparian protection fencing is expected to cost $58,700. *Id.* Stream restoration, which includes planting of hardwoods and removing riparian trees to place them in-channel to increase amounts of large woody debris, is expected to cost $770,000. *Id.* In total, Project activities are expected to cost $3,695,010, whereas revenue generated from commercial thinning is expected only to be $1,494,262, or 40% of total costs. AR17904–05.[6]

This case focuses primarily on those management activities authorized in riparian areas, which are among the most critical habitats on the Forest for fish and wildlife. AR1476. Riparian areas include water and land adjacent to water, where plants that are dependent on a perpetual source of water occur. *Id.* There are approximately 178 miles of streams in the Project Area, within three subwatersheds: Allen Creek, Porter Creek, and Peterson Creek-North Fork Crooked River. AR17655, 17685. These drainages are part of the Crooked River watershed, which, in turn, flows into the Deschutes River. AR20064, 20065 (map of Crooked River basin). The Project authorizes management activities within approximately 2,085 acres of riparian areas. AR17685 (Alternative 2). This includes approximately 730 acres of logging activities. AR17616 (530 acres along streams and 200 acres along wet meadows and springs).

[6] LandWatch does not specifically challenge the restoration activities, except to the extent they are used in the FEIS to "mitigate" or "offset" the impacts from other Project activities, because the agency never explained how it planned to pay for the deficit of over $2 million, and because the commercial logging activities are not contingent on any of the restoration activities being completed. *See, e.g.*, AR17957 (culvert replacement "depend[s] on availability of funding").

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B. The Project would increase already high road density.

To facilitate the logging activities, the Black Mountain Project authorizes a significant amount of roadwork in an area with existing high road density. For purposes of planning and evaluating the impacts of the Project, the Forest Service stated that there currently are 192.71 miles of "system" roads in the Project Area. AR17835. This equates to a road density of **3.63 mi/mi^2**. AR21469.[7] System roads are part of the official transportation system and receive an "operational maintenance level" designation ("ML"), which refers to the degree of maintenance required for a specific road and the level of service the road provides. Complaint, ECF1, and Answer, ECF7 ("Cmpl. & Ans."), ¶ 84. ML 1 roads are roads that are intended to be closed to vehicular traffic in between intermittent uses. AR17836. ML 2–5 roads are open to vehicular traffic and are displayed as such on administrative maps. AR17837; 36 C.F.R. § 212.56.

In addition, there are "non-system" routes on the Forest and in the Project Area, which are not part of the official transportation network and do not receive an ML designation. These include temporary roads and trails used for past Forest projects and "user-created" routes. Although it is unlawful to drive on non-system routes because they are not part of the official transportation network, 36 C.F.R. § 212.50, the Forest Service admits that motorized use of ML 1 (closed) roads and non-system routes occurs in the Project Area. Cmpl. & Ans. ¶¶ 86, 110. Some ML 1 roads do not have physical signs, barriers, or blockages, *id.*, and thus, it can be difficult or impossible on the ground to determine whether a road is in fact closed. The Oregon Department of Fish and Wildlife ("ODFW") conducted a motorized vehicle survey on randomly sampled closed roads on the Forest for three weeks from mid-May to early June, 2016. AR19101. By the last day of the survey, 60

[7] The Project Area is 34,013 acres, AR21458, or 53.15 square miles (there are 640 acres per square mile; 34,013÷640=53.15). To determine road density, one divides the miles of road by the square mileage: 192.71÷53.15, which results in the road density figure of 3.63 mi/mi^2.

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percent of the closed roads surveyed had received motorized vehicle use. *Id.* In prior project planning documents, the Forest Service estimated that there are over 700 miles of unauthorized motorized routes in an area that includes the Black Mountain Project Area, *see* AR20850, and that closed roads and user-created routes receive moderate to high levels of motorized use. AR20961.

For the Black Mountain Project, however, the agency did not account for motorized use of closed, non-system, or other user-created routes in its road density analysis. Instead, the agency only used the mileage of administratively "open" (*i.e.*, ML 2–5) roads. AR17768. According to the FEIS, the current open road density is 2.66 mi/mi^2. AR17769.[8] The Project authorizes 17.16 miles of road closure (*i.e.*, administratively re-designating roads from ML 2 to ML 1). AR21459; AR17838. As well, 2.97 miles of road would be decommissioned (1.41 miles of ML 2 roads and 1.56 miles of ML 1 roads). *Id.* The Project also authorizes a 0.24-mile segment of road to be opened (*i.e.*, re-designated from ML 1 to ML 2). *Id.* On account of these administrative changes and management activities, the agency states that the Project would result in an open road density of 2.31 mi/mi^2. AR21469.[9]

Not only did the Forest Service neglect to account for all roads and routes receiving motorized use in the road density analysis, neither did it account for a significant amount of roadwork and use of roads for logging activities during the course of the Project. The Project authorizes 22.6 miles of new road construction for "temporary roads." AR21460. Temporary roads are constructed to facilitate commercial logging activities and would be open for commercial hauling during the life of the Project. AR17842. The Project also calls for re-opening 30.91 miles of ML 1 roads to facilitate logging activities. AR17840. Adding the mileage of temporary and re-opened roads to the current mileage of administratively open roads yields a road density of **3.67 mi/mi^2.**[10] Adding

[8] This equates to 141.38 miles of road (2.66*53.15).
[9] This equates to 122.78 miles of road (2.31*53.15).
[10] (22.6+30.91+141.38)÷53.15=3.67.

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the increased mileage of temporary roads to the current total mileage of system roads (which includes ML 1 roads) yields a road density of **4.05 mi/mi²**.[11] Adding the mileage of non-system/user-created routes receiving motorized use to these totals increases the density of functionally open roads even further. The agency did not disclose or consider any of these facts.

II. The Project Poses Significant Threats to Rocky Mountain Elk.

A. Elk require a mosaic of habitats to support various life cycle stages, as recognized and protected by the Forest Plan.

Rocky Mountain Elk (*Cervus canadensis nelsoni*) are designated as a Management Indicator Species ("MIS") because their response to management actions can be used as an indicator of responses of other species dependent upon similar habitat conditions. AR1820, 1645, 1648. Elk habitat is present in the Project Area and elk use the Project Area throughout the year. Cmpl. & Ans. ¶ 96; AR17767. Elk rely on many habitat types for their survival, including calving grounds to give birth, open foraging areas to find food, concealed security habitat to provide hiding cover, and wallows to attract mates. Cmpl. & Ans. ¶ 47.[12] To accommodate the variety of habitats needed for these life functions, elk require a mosaic of forest maturity stages, including early, forage-producing stages, and mature stages that provide cover. *Id.* ¶ 48. Elk use of these habitats is linked to levels of human disturbance. *Id.* ¶ 49.

In recognition of the fact that elk populations "are limited by habitat capability, which changes over time in response to vegetation manipulation and open road density," AR1438, the Forest Plan instructs the agency to use a habitat capability model during project planning to determine habitat "effectiveness," as measured by the quality and quantity of cover and forage, and open road density. AR1648. The Forest Plan also requires the agency to determine if the use of an

[11] (22.6+192.71)÷53.15=4.05.

[12] Wallows are areas of low disturbance where bull (male) elk cover themselves in mud, and their own urine and feces, to attract cow (female) elk during the fall of each year. AR20940.

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area by an MIS like elk is essential habitat. AR1645. If it is determined to be essential habitat, the agency must protect it from adverse modification through curtailment of conflicting activities, modification of activities, seasonal restriction of activities, or avoiding the area. *Id.*

B. Increased road density would fragment habitat and displace elk.

Scientific studies consistently show that "elk distribution and habitat use are strongly influenced by road effects; high road densities and traffic levels predictably reduce elk use." AR19187; *see also* AR19571 ("It is documented in numerous studies that human access to elk habitat due to increased road density can negatively affect elk habitat utilization and increase elk vulnerability."); AR19764 ("Shifts in elk distribution away from roads used by motorized vehicles have been documented across many areas of the Western United States."). Given the well-documented impacts to elk from roads, the Forest Plan requires that open road densities within the "General Forest" management area (comprising most of the Project Area, *see* Cmpl. & Ans. ¶ 101) remain below 3 mi/mi^2. AR1662. Additionally, "[r]oads and trails will be at the lowest density which meets long-term resource needs." AR1627.

The Project authorizes a significant amount of roadwork and road use, including 22.6 miles of construction for "temporary roads," 23.66 miles of road reconstruction, and 135.88 miles of road maintenance to facilitate logging activities. AR21460. The Forest Service acknowledges that "timber sale activity can contribute substantially to daily traffic values[.]" AR17835. This will be additive to public road use, which is moderate in the spring, increases through the summer, and becomes heaviest in the late summer and fall with the commencement of deer and elk hunting season. *Id.* The FEIS recognizes that disturbances to elk are expected over the life of the Project, AR17772, but does not evaluate the nature and magnitude of impacts.

The science is clear, however: Roads and motorized use fragment habitat, cause displacement of elk away from preferred habitat, and leave less functional habitat for elk to use.

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Portland, OR 97214
Tel. (503) 227-2212

AR20942. To accurately measure the impacts of roads, it is imperative to account for all roads receiving motorized use. *See* AR19783 ("Careful assessment of how roads are being used, rather than their official status, is important to credibly evaluate effects of roads on elk and other wildlife."). As discussed above, the Forest Service only disclosed and considered the density of ML 2–5 roads in its analysis, despite the fact that the density of functionally open roads is much higher. *See supra* pp. 6–7.

C. Logging activities in riparian areas would disturb elk special habitats during critical life cycle stages.

Riparian areas are of special importance to the life cycle of elk. Elk reproductive processes—mating (rutting) and birth (calving and fawning)—occur primarily in riparian areas. AR17767 ("Calving and fawning primarily occur in proximity to riparian areas that provide access to high quality forage, water, and cover."); *id.* ("Wallows * * * primarily occur near water, in proximity to riparian areas, or where moist, soft ground can be found (e.g. springs and seeps)."). Elk are particularly vulnerable to disturbances during these critical life cycle periods. *See* AR20940. One leading study showed that during the calving season, only 10 human-disturbance events above ambient noise levels yielded no recruitment of calves. AR19600. The Forest Service recognizes wallows as "[f]ragile areas which exhibit sensitivities that require special care." AR1600.

In recognition of this vulnerability, the Forest Plan includes two standards for protecting elk special habitats. The agency must "[p]rotect the character of elk calving sites. Minimize disturbance from human activity during calving season (approximately May 15 to June 30)." AR1649. The agency must "[a]lso protect wallows during rutting season (September 1 to October 15)." *Id.*

Logging activities and the extent and use of the road system are known to disturb elk habitat. AR1386; AR20954. The Project authorizes logging activities and associated roadwork in riparian areas, *see infra* pp. 13–14, the most likely areas of elk calving sites and wallows. *See* AR17767; AR20944. As authorized by the Project, these activities may take place at any time of the year because the ROD does not establish a specified logging season.

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3141 E Burnside St.
Portland, OR 97214
Tel. (503) 227-2212

The Project includes seasonal restrictions on management activities that begin **during** calving season (May 15–June 30) and rutting season (September 1–October 15). AR21513. During project planning, the Forest Service did not attempt to locate elk calving sites and wallows to which the restriction would apply. Instead, the agency pledged to conduct post-decisional surveys during implementation of the Project. *See* AR17773. Surveys would be conducted two weeks prior to Project activities that begin **during** calving season (May 15–June 30) and rutting season (September 1–October 15). AR21513. "If [calving] habitat is present, project activities would be postponed until completion of calving season." *Id.* "If wallows are located, they would be flagged and no activities would be permitted within 0.25 miles of the wallow during the rutting season." *Id.* The Forest Service did not define what would constitute "calving habitat" or "wallows," mention how the surveys would be funded, or explain how it plans to locate these habitats two weeks prior to when the calving and rutting seasons begin, when animals are unlikely to be present. *See* AR21108–09.

Project activities that begin **before** calving and rutting seasons will be allowed to continue through those seasons. AR17773. The Forest Service acknowledges that activities will cause such significant disturbance that elk likely would not use those areas. *Id.*

III. The Project Poses Significant Threats to Riparian Areas and Water Quality.

A. Forest Plan Standards and Guidelines protect riparian areas and water quality.

At the time of the Forest Plan's adoption in 1989, management of riparian areas was already a key issue. AR1396. At that time, approximately 50 percent of the total miles of streams on the Forest were in a degraded condition, exhibiting seasonal problems with either turbidity, temperature, or both. AR269. The Forest Service recognized that while riparian areas comprise only two percent of the total area of the Forest, nearly all Forest management activities have direct or indirect effects on riparian areas and water quality. AR32. Impacts from grazing, timber harvest, and road building were identified as chief concerns. AR12.

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3141 E Burnside St.
Portland, OR 97214
Tel. (503) 227-2212

The Forest Plan therefore sets a series of standards and guidelines to protect riparian areas and water quality, with a primary emphasis on temperature (as it is affected by stream shade) and sediment (both in transport as suspended sediment or turbidity, as well as entrained in streambed gravels). AR705. With respect to temperature, the Forest Plan provides that existing temperatures in Crooked River tributaries (including those in the Project Area) at or above 68 degrees Fahrenheit will not be increased; temperatures at or below 66 degrees Fahrenheit may be increased a maximum of 2 degrees Fahrenheit. AR1639. As well, the Forest Plan requires that 80 percent of each stream surface must be shaded; where this cannot be attained, 100 percent of the potential for shade must be retained. AR1643.[13] With respect to sediment, the Forest Plan requires that, *inter alia*, there may not be more than a 10 percent cumulative increase in stream turbidity.[14] AR1644.

In 1995, the Forest Service adopted INFISH, which amends the Forest Plan with respect to management of riparian areas. Cmpl. & Ans. ¶ 68; *see also* AR3923. INFISH is a strategy designed to reduce the loss of inland native fish, like Redband trout. It requires the agency to "maintain and restore" water quality to the degree necessary to provide stable and productive riparian conditions. AR3937. INFISH provides indicators of ecosystem health called "Riparian Management Objectives" ("RMOs"). RMOs are quantifiable measures of stream and streamside conditions that define good habitat and serve as indicators against which attainment or progress toward attainment of riparian goals will be measured. AR4053.[15] Actions that reduce habitat quality, regardless of whether existing conditions are better or worse than RMOs, are inconsistent with the purpose of INFISH. AR3939.

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[13] An exception is made whereby shade requirements "may be reduced in cases where management is necessary to sustain a thrifty community of shade producing 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." *Id.*

[14] Short-term deviations from this standard to accommodate emergency or other legitimate activities must comply with state requirements for notification and approval. *Id.*

[15] RMOs are set for the following habitat features: (1) pool frequency; (2) water temperature; (3) large woody debris; (4) bank stability; (5) lower bank angle; and (6) width/depth ratio. AR3938.

Crag Law Center
3141 E Burnside St.
Portland, OR 97214
Tel. (503) 227-2212

INFISH establishes Riparian Habitat Conservation Areas ("RHCAs"). RHCAs are portions of watersheds where riparian-dependent resources receive primary emphasis and where management activities are subject to specific standards and guidelines. AR3940. These areas include traditional riparian corridors, wetlands, intermittent streams, springs and seeps, and other areas to help maintain the integrity of aquatic ecosystems. *Id.* As the Forest Service determined, these areas help maintain the integrity of aquatic ecosystems by (1) influencing the delivery of coarse sediment, organic matter, and woody debris to streams, (2) providing root strength for channel stability, (3) shading the stream, and (4) protecting water quality. *Id.*

INFISH sets RHCA widths (or "buffers") for four different categories to protect streams and waterbodies from sediment inputs and other riparian functions. AR3941–42. The following chart illustrates INFISH RHCAs by category and the RHCAs in the Project Area.

CATEGORY	WIDTH	MILES IN PROJECT AREA	ACRES IN PROJECT AREA
1: Fish-bearing streams	300 feet on either side of stream	43.4	2,830.05
2: Perennial, non-fish-bearing streams	150 feet on either side of stream	0.46	12.64
3: ponds, lakes, reservoirs, and wetlands greater than 1 acre	150 from the waterbody	N/A	560.13
4: Seasonally flowing or intermittent streams, wetlands less than 1 acre, landslides, and landslide prone areas	50 feet from the waterbody or area	134.2	1,507.4

See AR3941–42; AR17684–85. There are a total of 4,910.22 acres of RHCAs in the Project Area (about 14% of the total Project Area). AR17685.

INFISH RHCA widths apply unless and until watershed analysis is completed to provide an ecological basis for increasing or decreasing widths to achieve riparian management goals and

Crag Law Center
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Portland, OR 97214
Tel. (503) 227-2212

objectives. AR3941.[16] INFISH RHCA widths may be modified in the absence of watershed analysis only where stream reach, or site-specific data support the change. *Id.*

B. By authorizing logging activities within RHCAs, the Project would reduce stream shading and increase water temperatures.

INFISH sets standards and guidelines for activities inside RHCAs. These standards and guidelines replace existing, conflicting direction in the Forest Plan, except where the Forest Plan provides more protection for inland native fish habitat. AR3923. INFISH standard and guideline TM-1, applicable to this Project, prohibits timber harvest in RHCAs. AR3943. An exception is made for silvicultural practices to acquire desired vegetation characteristics where needed to attain RMOs, which must be applied in a manner that does not retard attainment of RMOs and that avoids adverse effects on inland native fish. *Id.*[17]

Rather than apply INFISH RHCA widths to dictate the scope of riparian logging, the Forest Service distinguished between a "lowland/inner vegetation zone" (which it alternatively called the "primary shade zone," or "potential shade zone," AR17654; AR21465), and an "upland/outer vegetation zone" within each RHCA. AR21521. For the primary shade zone, the Forest Service used a width of 70 feet from Category 1–3 perennial streams. AR17654. In general, logging within this zone would be subject to "management prescriptions" (certain restrictions on logging). AR21522–33. In the upland/outer zone (*i.e.*, more than 70 feet from the stream), logging in most cases would be allowed without restriction. AR21521. Subject to the management prescriptions, the Project

[16] "Watershed analysis" is a procedure for gathering critical baseline information on how a watershed functions. AR3950.

[17] To "retard" means to slow the rate of recovery below the near natural rate of recovery if no additional human caused disturbance was placed on the system. AR3939. "Adverse effects" include short- or long-term direct or indirect management-related impacts of an individual or cumulative nature, such as mortality, reduced growth, or other adverse physiological changes; harassment of fish; physical disturbance of redds; reduced reproductive success; delayed or premature migration; or other behavioral changes. AR4046.

Crag Law Center
3141 E Burnside St.
Portland, OR 97214
Tel. (503) 227-2212

authorizes logging activities within approximately 730 acres of RHCAs, AR17623, including 423 acres of commercial thinning. *See* AR21459.

Logging in riparian areas results in the reduction of shade. AR17673. The amount of shading in riparian areas determines the extent streams are warmed by solar radiation, AR704, thus, stream shade is a key feature for maintaining low water temperatures. AR20933; AR17686 ("Changes in riparian shading can translate to increased water temperature and affect aquatic biota."). The FEIS notes that under current conditions, most streams in the Project Area fail to meet the Forest Plan standard for 80 percent shade. Out of the 134 shade measurements across the three Project Area subwatersheds, only 43 met or exceeded 80 percent shade. AR17688. The FEIS states that the 80 percent shade standard is likely "unattainable" for Project Area streams, AR17672, which means that "100 percent of the potential for shade is the standard." AR1643. No discussion of the 100 percent standard is included in the FEIS.

The FEIS does not provide any specific stream temperature data for Project Area streams, but notes that Forest Plan standards for stream temperature in these streams often are exceeded in the summer months, when temperatures frequently are above ranges considered suitable for persistence of cool-water aquatic species like Redband trout and Columbia Spotted frog. AR17687–88. Both of these species are designated as "Sensitive Species"—species which are vulnerable to habitat alteration and recognized as needing special management attention to avoid placement on Federal or State endangered species lists. AR459; AR17682.

The FEIS does not evaluate the impacts to stream shade and temperature from all logging activities within RHCAs. Instead, the Forest Service evaluated impacts from management activities within the primary shade zone of Category 1–3 perennial streams. AR17673. The FEIS states that the 70-foot distance was selected for the Project Area, but does not provide any citation for either the concept of a "primary shade zone" or why the 70-foot distance was selected for this Project. *See*

Crag Law Center
3141 E Burnside St.
Portland, OR 97214
Tel. (503) 227-2212

id. The FEIS states that commercial thinning would have no adverse effects on stream temperature because logging only would occur within the primary shade zone of along a limited number of stream miles. AR17678. The FEIS does not evaluate the potential for shade reduction (and associated water temperature increases) from management activities outside of the primary shade zone but within RHCAs (*i.e.*, in the upland/outer vegetation zone or along non-perennial waterbodies). The FEIS does not provide any quantitative data on stream temperatures.

The FEIS concludes that the Project complies with INFISH, in particular, standard and guideline TM-1. AR17937. In assessing compliance with INFISH, the Forest Service focused on the fact that the majority of logging activities "would take place in the upper/outer vegetation zone[.]" AR21465. The agency did not explain how commercial treatments in the upper/outer vegetation zone are needed to attain RMOs.

C. By authorizing logging activities within RHCAs, the Project would increase sediment and turbidity in streams with already high sediment loads.

Riparian logging activities involving roads, landings (where logs and equipment are placed and temporarily stored), and skid trails (the routes where logs are dragged to landings) cause significant ground disturbance. AR17666; AR353–54; *see also* AR450. Heavy equipment and logs displace and compact soils, causing greater surface erosion during times of runoff. AR378. When located within a certain proximity to streams, roads and logging activities can be major sources of sediment inputs. AR4010. On account of high sediment delivery and degraded channel conditions, all three subwatersheds in the Project Area are rated as being in "poor" condition. AR17663.

Sediment is a natural feature of aquatic ecosystems and under natural conditions gets transported through the system, but increased sedimentation above background levels can have significant adverse consequences for aquatic species. *See* AR20920. For example, increased sedimentation into streams increases turbidity. *Id.* Turbidity is the degree to which suspended material in the water impedes light penetration, and is expressed in terms of Nephlometric Turbidity

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3141 E Burnside St.
Portland, OR 97214
Tel. (503) 227-2212

Units ("NTUs"). AR17665. Increased turbidity negatively impacts aquatic species by reducing the growth of aquatic plants and interfering with the ability of fish and other species to catch prey. AR20878. Fine particles in turbid water can clog the gills of fish like Redband trout, promote excessive algae growth, reduce dissolved oxygen, and impair visibility. AR20867. Columbia spotted frogs and other aquatic biota depend on low turbidity water for life history behaviors. AR17701.

The Project authorizes ground disturbing activities in riparian areas, including timber felling, roadwork, and log hauling, leading to increases in sediment delivery to streams and waterbodies. AR17666–69. On account of these activities, the FEIS estimates a short-term increase in sediment delivery of approximately 50% over background levels. AR17669. The FEIS does not assess, however, the impact of the Project on stream turbidity. The Forest Service dismissed the need to measure turbidity on the erroneous, and unsupported, suggestion that "most of the measurable effects to aquatic life result from sediment instead of turbidity[.]" AR17665.

IV. LandWatch Would Have Dropped Its Objection to the Project with Modest Changes, But the Agency Moved Forward With Over 99% of the Project as Proposed.

LandWatch participated extensively in the administrative process for the Project. *See* AR6493–529, 6530–40, 15590–632, 15691–711. The FEIS and Draft ROD were published on July 19, 2019. AR17549–18151; AR17465–548. The Draft ROD set forth Defendant Kovarik's intention to select Alternative 2 from the FEIS, allowing for management activities on approximately 15,810 acres in the Project Area. AR17471. LandWatch timely submitted pre-decisional administrative objections to the FEIS and Draft ROD. *See* 36 C.F.R. Part 218; AR18206–13; AR18374–450.

The Forest Service held an "objection resolution" meeting with objectors on September 30, 2019. *See* AR21058–61. The agency and Plaintiff LandWatch held a follow-up meeting and exchanged correspondence in an effort to resolve objections over the Project. Cmpl. & Ans. ¶ 180. During this time, LandWatch stated its intention to "work[] with the USDA Forest Service to address LandWatch's objections." AR21105. Following the meeting, on October 15, 2019,

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3141 E Burnside St.
Portland, OR 97214
Tel. (503) 227-2212

LandWatch sent to the Forest Service a letter proposing modifications to Project components and analysis, including protection of riparian areas by reducing management activities in RHCAs, conducting inventories for elk calving sites and wallows, and full disclosure and analysis of Project Area road density. AR21062–70. LandWatch identified proposed modifications on a unit-by-unit basis. *Id.* Representatives from Plaintiff LandWatch met with Forest Service representatives on October 15, during which the parties discussed LandWatch's proposal. Cmpl. & Ans. ¶ 180.

On November 5, 2019, Defendant Kovarik sent a letter to LandWatch, *inter alia*, purporting to offer (1) clarifications of some of the issues and concerns raised in objection resolution meetings, and (2) offer modifications to the proposed selected alternative. AR21091–95. Specifically, the Forest Service proposed dropping or modifying management activities in approximately 100 acres (out of approximately 16,000). *Id.* Defendant Kovarik stated: "If the information in this letter and the modifications to the proposed decision address your objection issues, please let us know if you're willing to drop your objection." AR21095. On November 14, LandWatch sent Defendant Kovarik a message stating an intent to send a responsive letter with a counter-proposal. AR21105. Before receiving the letter from LandWatch, Defendant Kovarik responded with a message stating that the Forest Service "plan[s] to move forward with the decision as proposed," incorporating the modifications outlined in the November 5, 2019 letter. AR21106.

Nevertheless, in a continued effort to attempt to resolve objections, on November 17, 2019, Plaintiff LandWatch responded with its counter-proposal, stating that, if accepted by the Forest Service, LandWatch would not further challenge the Project. AR21107–10. LandWatch proposed a modest reduction of management activities in certain RHCAs, surveys for calving sites and wallows that occur at biologically relevant periods, and a full and fair analysis of road density that accounts for impacts to elk. *Id.* The next day, on November 18, 2019, Defendant Jefferies sent to LandWatch and the other objectors the Forest Service's objection responses. AR21203–47. Defendant Jeffries

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Portland, OR 97214
Tel. (503) 227-2212

reiterated the clarifications and minor changes in the November 5, 2019 letter and stated that no further clarifications or modifications "are merited." AR21205.

On December 16, 2019, Defendant Kovarik signed the final ROD for the Project, acknowledging that no resolution had been reached during the pre-decisional objection resolution process. AR21481. The final ROD codifies Defendant Kovarik's decision to implement "Alternative 2A," which represents Alternative 2 from the FEIS with the modifications identified in the November 5, 2019 letter. AR21458. Alternative 2A allows for management activities on approximately 15,763 acres in the Project Area, *id.*, meaning that the Forest Service went ahead with management activities in 99.7% of the Project Area as proposed in the draft ROD (15,763/15,810).

LEGAL FRAMEWORK AND STANDARD OF REVIEW

I. National Forest Management Act

"NFMA sets forth the statutory framework and specifies the procedural and substantive requirements under which the Forest Service is to manage National Forest System lands." *Lands Council v. McNair*, 537 F.3d 981, 988 (9th Cir. 2008). NFMA provides for forest planning and management on two levels: (1) the forest level, and (2) the site-specific project level. *All. for the Wild Rockies v. Savage*, 897 F.3d 1025, 1032 (9th Cir. 2018). At the first level, NFMA requires the Forest Service to develop, maintain, and revise a forest plan for each national forest. 16 U.S.C. § 1604(a). At the second level, the Forest Service implements the forest plan when approving or denying site-specific projects. *Id.* The Forest Service must conduct an analysis of each site-specific action to ensure its consistency with the forest plan. *Idaho Sporting Cong. v. Rittenhouse*, 305 F.3d 957, 962 (9th Cir. 2002); *see also* 16 U.S.C. § 1604(i).

II. National Environmental Policy Act

NEPA is our nation's charter for protecting the environment. *N. Idaho Cmty. Action Network v. U.S. DOT*, 545 F.3d 1147, 1153 (9th Cir. 2008). NEPA ensures that an agency carefully consider

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3141 E Burnside St.
Portland, OR 97214
Tel. (503) 227-2212

detailed information concerning significant environmental impacts, while guaranteeing that the relevant information will be made available to the public so it may play a role in both the decisionmaking process and the implementation of the decision. *See Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752, 768 (2004). To achieve these twin aims, NEPA and implementing regulations set forth "action-forcing" procedures, designed to (1) ensure that the agency took the requisite "hard look" at the environmental consequences of the proposed action, and (2) foster meaningful public participation. *See Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349–51 (1989).

NEPA requires every federal agency to prepare an EIS for "all major federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(C). The environmental consequences section of the EIS "forms the scientific and analytic basis" for the evaluation of a project, and requires an agency to fully and fairly discuss direct and indirect environmental impacts as well as any means to mitigate adverse impacts. 40 C.F.R. § 1502.16. The agency must disclose and consider all direct, indirect and cumulative impacts of a proposed action. 40 C.F.R. §§ 1502.16, 1508.25. Direct impacts are those that are caused by the action and occur at the same time and place. 40 C.F.R. § 1508.8(a). Indirect impacts are also caused by the action, but occur later in time or are farther removed in distances. *Id.* § 1508.8(b). Cumulative impacts are the impacts of the proposed action, as well as impacts from other past, present, and reasonably foreseeable future actions, both federal and non-federal. *Id.* § 1508.7.

III. Administrative Procedure Act

The Ninth Circuit endorses the use of Rule 56 summary judgment motions to resolve claims brought pursuant to the APA. *See Nw. Motorcycle Ass'n v. U.S. Dep't of Agric.*, 18 F.3d 1468, 1471–72 (9th Cir. 1994). LandWatch's NFMA and NEPA claims are reviewed pursuant to the APA, 5 U.S.C. § 706(2). *Or. Natural Res. Council Fund v. Goodman*, 505 F.3d 884, 889 (9th Cir. 2007). "The APA sets forth the procedures by which federal agencies are accountable to the public and their actions

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Tel. (503) 227-2212

subject to review by the courts." *Dep't of Homeland Sec. v. Regents of Univ. of Cal.*, 140 S. Ct. 1891, 1905 (2020) (citation omitted). Under the APA, "agencies must engage in reasoned decisionmaking." *Id.* Agency actions must be "set aside" if they are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law," or adopted "without observance of procedure required by law." 5 U.S.C. § 706(2)(A), (D). Agency action is arbitrary and capricious where the agency "relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, [or] offered an explanation for its decision that runs counter to the evidence before the agency[.]" *Mtr. Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co. ("State Farm")*, 463 U.S. 29, 43 (1983).

Under this standard of review, a court is not permitted to substitute its judgement for that of the agency, but must assess whether the decision was "based on a consideration of the relevant factors and whether there has been a clear error of judgment." *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402, 416 (1971). It is a foundational principle of administrative law that judicial review of agency action is limited to the grounds that the agency invoked when it took the action. *Dept. of Homeland Sec'y*, 140 S. Ct. at 1907 (citation omitted).

ARGUMENT

I. LandWatch Has Standing to Bring This Case.

LandWatch and Oregon Wild are non-profit organizations whose missions and members' interests are harmed by the Forest Service's decision. As set forth in the declarations filed herewith, these organizations' members use and enjoy the Forest and Black Mountain Project Area for a variety of recreational, scientific, and spiritual purposes and have firm plans to return.

Barbara Franano was a Fishery Biologist for the Forest and is particularly concerned about the Project's degradation of riparian areas and fish habitat, lessening her chances of taking her grandchildren fishing. Franano Decl. ¶¶ 8, 21. Dean Grover also was a Fishery Biologist for the

Crag Law Center
3141 E Burnside St.
Portland, OR 97214
Tel. (503) 227-2212

Forest, and is concerned that timber harvest in riparian areas will further degrade riparian vegetation, wildlife habitat, water quality, and fish habitat—thereby jeopardizing future family camping and fishing trips. Grover Decl. ¶¶ 4, 20. Marilyn Miller, who enjoys birding and wildlife photography in the Forest, worries about disturbances to riparian areas and her ability to photograph elk and bird species in the future. Miller Decl. ¶¶ 11–15, 19. Rynda Clark is concerned about the impacts of logging in riparian areas which would inhibit her plans to view and photograph wildlife. Clark Decl. ¶¶ 4-5, 10. Jamie Dawson is a recreationist, hunter, and professional conservationist and is concerned about project activities in riparian habitat and those activities' impacts to fish and wildlife. Dawson Decl. ¶¶ 2, 11, 13.

"[E]nvironmental plaintiffs adequately allege injury in fact when they aver that they use the affected area and are persons for whom the aesthetic and recreational values of the area will be lessened by the challenged activity." *Friends of the Earth v. Laidlaw*, 528 U.S. 167, 180–81 (2000). Opportunities to engage in hunting, fishing, camping, and wildlife photography for LandWatch's and Oregon Wild's members would be irreparably damaged by the Project, but redressed by the remedy requested. *See Lujan v. Def. of Wildlife*, 504 U.S. 555, 560–61, 572–73 n.7 (1992).

II. The Forest Service Failed to Comply with Its Substantive and Procedural Duties with Respect to Rocky Mountain Elk in Accordance with NFMA and NEPA.

A. The analysis of road density was arbitrary and unlawful.

The Ochoco National Forest has a problem with high road density. As discussed above, the landscape is riddled with ML 1–5 roads and non-system routes including user-created trails. *See supra* pp. 5–6. Many of the ML 1 roads and user-created routes are receiving motorized use because they are functionally open on the ground. *See id.* Rather than address these issues through management approaches such as physical closures, road decommissioning, and enforcement of illegal motorized use, the Forest has opted to address the issue largely through paper exercises.

Crag Law Center
3141 E Burnside St.
Portland, OR 97214
Tel. (503) 227-2212

For one, no matter what on-the-ground conditions actually are, the Forest Service exclusively relies on its administrative map of "open" roads (ML 2–5) for its road density calculations during project planning. Second, and relatedly, the Forest refuses to factor in unlawful use of motorized routes—administratively "closed" roads and user-created routes—despite acknowledging that such unlawful use is occurring on the landscape. Under this approach, the agency artificially claims that it is complying with the Forest Plan's road density standard when in fact the density of functionally open roads and trails greatly exceeds the standard. This Court in the Summit OHV case ruled that the Forest Service's paper exercise for analyzing road density was arbitrary and capricious. The Black Mountain Project suffers from the same core problems.

1. The agency failed to comply with the road density standard.

Within the General Forest management area, the Forest Plan sets an open road density standard of 3 mi/mi^2. AR1662; *Guardians*, 370 F. Supp. 3d at 1235. The Forest Plan also requires that roads and trails "be at the lowest density which meets long-term resource needs." AR1627; *see also Guardians*, 370 F. Supp. 3d at 1235.

At baseline, the Project Area already exceeds the road density standard. *See supra* p. 5 (3.63 mi/mi^2). The Project calls for a significant amount of roadwork, which would increase road density further above the Forest Plan standard. *See supra* p. 7 (4.05 mi/mi^2). Significantly, these figures do not include non-system and user-created routes, which increase road density even further. *See id.* Despite these facts, the Forest Service claimed compliance with the road density standard by calculating road density based solely on the mileage of administratively open (ML 2–5) roads. AR17768. In other words, the agency excluded from its road density analysis: (1) ML 1 closed roads; (2) temporary roads constructed and used for the Project; and (3) non-system and user-created routes. Such a calculation completely ignores on-the-ground conditions—the miles of roads that are functionally open and receiving motorized use—and instead focuses on a computer spreadsheet

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based on administrative labels. *See* AR5805–06. The FEIS offers no justification for the exclusion of functionally open roads, other than to briefly note (in an appendix), that the Forest Plan standard applies to only "open" roads. AR18072 (Response to Comments).

This is the same, flawed "explanation" that this Court found lacking in the Summit OHV case. *See Guardians*, 370 F. Supp. 3d at 1237 (rejecting argument that "the Forest Plan does not explicitly require the inclusion of closed or user-created trails in the road density analysis"). Indeed, the road density standard is designed to protect elk habitat. *See* AR1661. "Presumably, elk are unable to distinguish between user-created and Forest-Service-created motorized routes, especially given that open road density is one of the main factors influencing the effectiveness of big game habitat." *Guardians*, 370 F. Supp. 3d at 1236. The record in this case, as in the Summit OHV case, is abundantly clear: Many roads and trails that are administratively "closed" are receiving motorized use, *see, e.g.*, AR20854, 20881, 20882, 20892, 20960–65, and elk are impacted by motorized vehicles and fragmented habitat, regardless of a road's administrative designation. *See* AR20962 ("All roads, routes and trails occupying the landscape that receive motorized use biologically impact wildlife and their habitat[.]"). By failing to provide a rational explanation for the exclusion of closed, temporary, and user-created routes, "[t]he result is that the Forest Service here has acted arbitrarily and capriciously with regard to road density analysis." *Guardians*, 370 F. Supp. 3d at 1237.

Nor does the FEIS offer any analysis of the "lowest density" requirement. The Project authorizes roadwork and use of over 180 miles of roads, AR21460, which will have a permanent impact on the landscape. Because the FEIS and ROD "are silent as to the Project's compliance with this requirement, and do not explain what the long-term resource needs are or how the Project meets them," the Forest Service likewise has failed to demonstrate compliance with this substantive requirement. *Guardians*, 370 F. Supp. 3d at 1237.

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2. The agency failed to disclose and consider important aspects of the road density issue.

The failure to address functionally open roads in the road density analysis also violates NEPA. *Guardians*, 370 F. Supp. 3d at 1239, 1241–42. In the environmental consequences section of the FEIS, the Forest Service exclusively focuses on administratively open roads. AR17768 ("It is important to note that only open roads (Maintenance Level 2–5) in the Infra Database were used to calculate open road density."). Ample record evidence, however, shows that many non-administratively open roads are receiving motorized use. *See, e.g.*, AR21393 (pictures of administratively open roads that are receiving motorized use); AR21394 (pictures of user-created routes). What is the impact to elk from these other roads and trails? The FEIS is silent as to this question. "An agency's action is arbitrary and capricious if the agency fails to consider an important aspect of a problem[.]" *Lands Council v. Powell*, 395 F.3d 1019, 1026 (9th Cir. 2004).

After the close of all available public comment and objection periods, the Forest Service purported to address this issue by inserting a single statement in the ROD, unsupported by any evidence: "[E]ffects to elk from illegal use of closed roads are not analyzed, as illegal breaches of closed roads are not measurable or predictable." AR21469. There are three fundamental problems with this statement. First, and most importantly, its inclusion at the end of the decisionmaking process is contrary to NEPA, which requires that "the relevant information will be made available so the public can play a meaningful role in the decisionmaking process." *Robertson*, 490 U.S. at 349.

Second, the statement runs directly counter to evidence in the record. *See State Farm*, 463 U.S. at 43 (agency action is arbitrary and capricious where the agency "offered an explanation for its decision that runs counter to the evidence before the agency"). Commenters alerted the Forest Service to the problem of roads and trails being administratively closed, but functionally open on the ground. AR15706 ("[M]any of the ML 1 closed roads are only designated closed on the MVUM map and are not physically closed and are driven."). And the agency itself undertook certain road surveys,

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in which it found, for example, that Road 3000205 (designated as ML1) "is heavily used by the public." AR18004; *see also* AR6635 (agency road surveyor noting that the Road 3010200 "is supposed to already be closed[,] [b]ut the berm has been breached (photo) and people are driving through."). Unlawful motorized vehicle use is indeed measurable, as the record reflects.

Third, NEPA requires the agency to take a "hard look" at all foreseeable direct, indirect, and cumulative impacts. *Idaho Sporting Cong.*, 305 F.3d at 963. The Forest Service had evidence before it that (1) many administratively closed roads and trails are receiving motorized use, and (2) that elk are disturbed by vehicular traffic regardless of a road's administrative designation. The agency had a duty under NEPA to fully and fairly evaluate the impact to elk and elk habitat from the foreseeable impact of motorized traffic on administratively closed roads and trails. 40 C.F.R. § 1502.1 (EIS must "provide a full and fair discussion of significant environmental impacts"). By failing to address closed and user-created routes, the Forest Service failed to take a hard look at the Project's impacts on elk. *Guardians*, 370 F. Supp. 3d at 1239, 1241–42.

B. The analysis of elk special habitats was arbitrary and unlawful.

1. The agency failed to comply with Forest Plan standards protecting elk special habitats.

As with the road density issue, this Court issued an explicit holding about the agency's obligations with respect to elk special habitats: "[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." *Guardians*, 370 F. Supp. 3d at 1235; *see also id.* at 1221. The problem was that the agency's EIS and ROD "[did] not identify where known calving sites and wallows are located or how they relate to [the Project]," despite ample record evidence showing adverse effects of motorized vehicles on elk during the reproductive and breeding seasons. *Id.* at 1234.

Here, the Forest Service admits that habitat suitable for elk calving areas and wallows is present within the Project Area. Cmpl. & Ans. ¶¶ 116–17. The Project involves management

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activities within riparian areas—the most likely areas for calving habitat and wallows—which are known to disturb elk habitat. AR17772 ("During implementation, which typically occurs over a 10-year period, [d]isturbances to big game would be expected to increase over the current condition during this time."). And yet, the FEIS and ROD provide no data on the location of calving sites and wallows in order to demonstrate that the Forest Plan's requirement to "minimize disturbance" and "protect" these sites during the critical birthing and mating seasons would be satisfied. AR1649. Just as in the Summit OHV case, there are two critical flaws with the agency's approach.

First, the Forest Service impermissibly falls back on post-decisional surveys and mitigation measures. AR17773. Restrictions on management activities set to begin **during** the calving and rutting seasons only will apply to calving habitat and wallows located in unfunded, unenforceable, and vaguely defined post-decisional surveys. AR21513. This Court rejected the approach of future monitoring and mitigation as a means of Forest Plan compliance. *Guardians*, 370 F. Supp. 3d at 1234.

Second, the Project authorizes any and all activities that begin **before** the critical reproductive and mating seasons to continue unrestricted, even if those activities are located within calving habitat and wallows. AR21513. This Court also rejected the authorization of Project activities that "occur[] during sensitive elk seasons" because it "conflicts with and violates the Forest Plan provisions requiring the Forest Service to minimize human activity during calving seasons and to protect wallows during rutting season." *Guardians*, 370 F. Supp. 3d at 1235.

Instead of providing a "rational explanation for how the Project meets the Forest Plan's requirement to protect those sites and minimize disturbances," *id.* at 1221, the Forest demurs because identification of calving habitat and wallows may be difficult. *See* AR17772 (avoiding any pre-decisional surveys on grounds that calving areas and wallows "**may** change from year to year[.]") (emphasis added). But this is not a rational explanation as to Forest Plan compliance—it is an excuse for **not** complying with the Forest Plan. The failure to demonstrate consistency with the Forest Plan

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is a violation of NFMA. *Native Ecosystems Council v. U.S. Forest Serv.* ("*NEC*"), 418 F.3d 953, 961 (9th Cir. 2005); *see also Neighbors of Cuddy Mtn. v. U.S. Forest Serv.*, 137 F.3d 1372, 1377 (9th Cir. 1998) (finding NFMA violation where agency provided no information on woodpecker home ranges, despite forest plan requirement to protect a certain amount of old growth within home ranges).

2. The agency failed to disclose and consider important aspects of the elk special habitats issue.

The FEIS's failure to provide information about calving sites and wallows also violates NEPA's requirements that the agency take a "hard look" at the Project's environmental impacts, *see N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1083 (9th Cir. 2011), and to guarantee that the public receives accurate information about those impacts. *Idaho Sporting Cong. v. Thomas*, 137 F.3d 1146, 1151 (9th Cir. 1998); 40 C.F.R. § 1500.1(b). Without baseline data, the agency cannot carefully consider information about significant environmental impacts, and thus "fails to consider an important aspect of the problem." *N. Plains*, 668 F.3d at 1085. This Court in the Summit OHV case decided that the failure to identify the location of elk calving and rutting areas prevented the Forest Service from disclosing and analyzing direct, indirect, and cumulative impacts, and thus, the agency failed to take a "hard look." *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 (establishing disclosure process for incomplete or unavailable information on significant impacts).

Despite admitting that elk calving sites and wallows are likely in the Project Area, Cmpl. & Ans. ¶¶ 116–17; AR17767, the FEIS does not identify the location, quantity, or quality of any calving sites or wallows. Nor does the FEIS make any disclosures under 40 C.F.R. § 1502.22. Without any information about the location of elk calving sites and wallows, in relation to the Project's management activities—spatially or temporally—"the EIS process cannot serve its larger informational role, and the public is deprived of their opportunity to play a role in the decision-making process." *N. Plains*, 668 F.3d at 1085.

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Rather than providing up-front disclosure and analysis, the agency pledges to conduct surveys for Project activities that begin during the calving and rutting seasons. AR17773. The Ninth Circuit, however, prohibits this type of "act first, study later" approach for gathering key baseline data. *See N. Plains*, 668 F.3d at 1084–85 (NEPA requires a determination of "the projected extent of the environmental harm to enumerated resources before a project is approved."). Here, the agency's promises to survey for elk calving sites and wallows (for a limited subset of Project activities) violates NEPA: "The Forest Service cannot rely on future monitoring of calving sites and wallows, because data must be available during the EIS process and be available for public comment." *Guardians*, 370 F. Supp. 3d at 1240 (citing *N. Plains*, 668 F.3d at 1084–85).

III. The Agency Failed to Comply with Its Substantive and Procedural Duties with Respect to Riparian Areas and Water Quality in Accordance with NFMA and NEPA.

A. The agency failed to comply with INFISH.

INFISH sets forth Standards and Guidelines that prohibit or restrict land management activities in RHCAs that would retard or prevent attainment of RMOs or adversely affect inland native fish. AR3923. Applicable here, INFISH TM-1 prohibits timber harvest in RHCAs, subject to two exceptions. AR3943. The first exception, pertaining to salvage logging, is inapplicable to this Project. The second exception allows for timber harvest in RHCAs "to acquire desired vegetation characteristics where needed to attain [RMOs]." *Id.* Here, the Forest Service is authorizing 423 acres of commercial thinning in RHCAs. AR21459. The agency has failed to provide a rational explanation as to how commercial thinning activities comply with TM-1, for two principal reasons.

First, the Forest Service has modified RHCA widths without supplying an adequate explanation for the change. The agency's justification for authorizing commercial thinning in RHCAs is that the majority of logging operations will occur outside of the "lowland/inner" (a.k.a. "primary shade") zone, *see* AR21464–65, 21521, corresponding to 70 feet away from perennial streams. AR17673. In other words, the Forest Service has restricted commercial thinning within the

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lowland/inner (primary shade) zone, but is authorizing commercial thinning outside of this zone. INFISH, however, does not distinguish between a lowland/inner (primary shade) zone and an upland/outer zone within RHCAs. Rather, INFISH sets RHCA widths to, *inter alia*, provide stream shading. These widths are accomplished through mandatory buffers around Category 1–4 waterbodies. AR3941–42. Here, the Forest Service's approach has effectively modified RHCA widths for this Project: 70-feet on either side of Category 1–3 streams.

Under INFISH, RHCA widths apply unless and until watershed analysis is completed to supply an ecological basis for a change, or where stream reach or site-specific data support the change. AR3941. In all cases, the Forest Service must document its rationale supporting RHCA widths and their effects. *Id.* This Court has held that INFISH's procedural requirements are binding on the agency before it may modify INFISH provisions. *Guardians*, 370 F. Supp. 3d at 1222–23.

Here, however, the Forest Service "did not get funding for a watershed analysis[.]" AR5231. And the agency did not provide any rationale or stream reach or site-specific data for the 70-foot primary shade zone. AR17654 (stating, without reference to any evidence, that the 70-foot distance "was used for this project"). Where the agency referred to developing management prescriptions for each unit, AR21521–22, its reasoning was tautological: Thinning outside of the primary shade zone is warranted because it is outside of the primary shade zone. *See* AR21523, 21524, 21525, 21526, 21528, 21529 (unit-specific prescriptions for Units 15, 48, 66, 107, 160, 163, 192). The agency's failure to follow INFISH's procedural steps prior to modifying RHCA widths was unlawful. *See Guardians*, 370 F. Supp. 3d at 1222–23 (vacating and remanding ROD on grounds that, *inter alia*, the agency modified RMOs without complying with INFISH requirements for modification).

Second, the Forest Service has failed to explain how the proposed commercial thinning operations were designed to acquire desired vegetation characteristics needed to attain RMOs. AR3943. The FEIS spells out in detail the purposes of commercial thinning. AR17953–54. None of

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these has anything to do with attaining RMOs. *See, e.g.*, *id.* ("Commercial thinning would be used to restore characteristic (i.e. historic) dry forest composition[.]"). The FEIS also discusses generally the purposes of riparian "treatments" in RHCAs, which include all of the Project components, including restoration, non-commercial thinning, and hardwood enhancement. AR17615. But nowhere does the Forest Service provide a specific explanation as to why commercial thinning operations are "needed to attain [RMOs]," the prerequisite for logging activities in RHCAs. AR3943; *Guardians*, 370 F. Supp. 3d at 1222 (enforcing INFISH procedural "prerequisites").

B. The agency failed to comply with Forest Plan shade, temperature, and turbidity standards.

The standards and guidelines of the Ochoco Forest Plan relating to the protection of riparian areas and water quality apply to the extent they are consistent with or more protective than the provisions of INFISH. *Powell*, 395 F.3d at 1033. Here, the Forest Plan standards and guidelines related to shade, temperature, and turbidity are not inconsistent with INFISH. The Forest Service has failed to articulate a rational explanation for how the Project is consistent with these provisions.

1. The agency is not providing 100 percent of the potential for shade.

The Forest Plan requires the agency to manage for more than 80 percent of the stream surface shaded. AR1643. "Where this cannot be attained, 100 percent of the potential for shade is the **standard**." *Id.* (emphasis added). The FEIS cites this provision, AR17672, and then states: "80 percent is most likely an unattainable provision for this project area in the existing condition." *Id.* Accordingly, the agency had a duty to provide "100 percent of the potential for shade." AR1643.

The Project, however, authorizes a reduction in shade. *See, e.g.*, AR17673 ("The highest potential for a reduction in shade would be by canopy removal from commercial harvest units, noncommercial hardwood units, and noncommercial large wood (LWD) source units within the

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[primary shade zone] on perennial streams."). The Project calls for activities along 85.16 miles of waterbodies, AR17685, all of which activities have the potential to reduce shade. AR17673–77.

The agency does not explain how it could provide for 100 percent of the potential for shade when it is authorizing a reduction in shade. Nor does the FEIS provide any rationale for the departure from the 100 percent standard, and instead merely reiterates that "80% shade is unattainable[.]" AR18062. Although not addressing the 100 percent standard specifically, the FEIS attempts to justify shade reductions on grounds that reductions in shade would be "localized and of small magnitude." AR17692–93. Relevant law, however, contains no *de minimis* exceptions. *See Goodman*, 505 F.3d at 895 (Forest Service had a duty to comply with the forest plan regardless of whether the acreage at issue was relatively large or small).

While the Forest Plan does allow for deviation from the 100 percent standard if shade reductions would not "result in an increase in temperatures above the limits specified," AR1643, the Forest Service did not attempt to link the shade reductions to the Forest Plan temperature standards. In fact, the FEIS does not mention the Forest Plan temperature standards at all. As discussed in more detail below, the agency failed to provide any quantitative data regarding stream temperatures that would provide a basis for departing from the 100 percent shade standard.

2. The agency has not provided any data to support compliance with the quantitative Forest Plan temperature standard.

The Forest Plan sets a temperature standard of 68 degrees Fahrenheit for Crooked River tributaries (which comprise all of the Project Area streams). AR1639. Temperatures at or below 66 degrees Fahrenheit may be raised a maximum of 2 degrees. *Id.* The FEIS acknowledges that the three main tributaries in the Project Area are on Oregon's list of impaired waterways due to elevated water temperatures, AR17672, and notes that for Project Area streams, average daily maximum stream temperatures, measured during a consecutive seven-day period, often exceed the Oregon Department of Environmental Quality's 64-degree Fahrenheit standard for supporting resident fish.

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Tel. (503) 227-2212

AR17688. But the FEIS provides no information about how far above the threshold stream temperatures are and how often they are exceeded. This was a critical omission: If temperatures are above 68 degrees Fahrenheit at baseline, no increase is permitted. AR1639.

Nor does the FEIS provide any quantitative measurements of how the Project will influence temperatures. Project activities that reduce shade and contribute to stream sedimentation can influence stream temperatures. AR19834 ("Riparian harvest reduces stream shade and leads to higher water temperatures."); AR20918 (water temperature is affected by increased sediment delivery from roads). The Forest Service repeatedly claims that "no measurable increase in water temperatures" are anticipated, *see* AR17676, but it provides no data to support this bare 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." *McNair*, 537 F.3d at 994. Claiming that impacts are not "measurable," without providing any evidence, indicates that the Forest Service has failed to provide a rational explanation between the facts found and its conclusion. *See id.* ("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.").

3. The agency did not address compliance with the turbidity standard.

With respect to sediment, one of the Forest Plan's two water quality parameters, AR705, the Forest Plan provides, *inter alia*: "Allow no more than 10 percent cumulative increase in stream turbidity." AR1644. Here, the Forest Service did not evaluate the Project's impact on stream turbidity. In fact, the agency expressly disavowed any obligation to do so:

> Because turbidity typically only fluctuates during storm or peak flow events, it is not an enduring condition that affects the longevity of individual aquatic organisms, or the viability of populations. Due to the fact that most of the measurable effects to aquatic life result from sediment instead of turbidity, this analysis focuses on sediment as modeled using Forest Service WEPP.

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AR17665. As a scientific matter, this unsupported assertion is highly problematic because turbidity affects aquatic organisms in different ways than fine sediment deposition. *See, e.g.*, AR19832 ("Sedimentation affects quality of fish habitat increasing the amount of [sediment] fines and causing embeddedness of gravel and substrate. * * * Turbidity affects fish production by reducing production of aquatic insects and plankton, and foraging efficiency of fish."). Indeed, the Forest Plan's emphasis for the Riparian management area is to meet "turbidity levels"—not levels for sediment deposition. AR1476. And thus, the Forest Service's refusal to address turbidity also is highly problematic from a legal perspective: The agency cannot simply disregard a binding Forest Plan standard. *See NEC*, 418 F.3d at 961(explaining that if "the Forest Service thinks any provision of the [Forest Plan] is no longer relevant, the agency should propose amendments to the [Forest Plan] altering its standards, in a process complying with NEPA and NFMA, rather than discount its importance in environmental compliance documents"). By failing to address a governing Forest Plan standard, the agency has violated NFMA.

C. The agency failed to disclose and consider important aspects of the problem with respect to riparian areas and water quality.

NEPA violations flow from the Forest Plan violations described above. Regarding stream shade, the Forest Service has failed to consider an important aspect of the problem: The potential for shade reduction **outside** of the so-called "primary shade zone." The FEIS exclusively addresses shade reduction from activities **within** the primary shade zone. *See, e.g.*, AR17673–77. The agency simply assumed, without explanation, that logging outside of the primary shade zone would not contribute to shade reductions. This was an incorrect assumption. As Defendants admit, trees further than 70 feet from waterbodies can provide stream shading. Cmpl. & Ans. ¶ 151. Indeed, INFISH RHCA widths—including 300 feet and 150 feet for Category 1 and 2 streams, respectively—were set, *inter alia*, to provide for stream shading. AR3940. While the agency asserts that the amount of logging within the primary shade zone is small, the amount of logging within

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Portland, OR 97214
Tel. (503) 227-2212

RHCAs is significant: Approximately 2.5 MMBF of timber would be extracted from RHCAs, equivalent to approximately 500 log trucks' worth.[18] The FEIS's silence as to how this significant removal of trees within RHCAs may impact stream shading, based on an incorrect assumption, violates NEPA. *See NEC*, 418 F.3d at 964 ("To take the required 'hard look' at a proposed project's effects, an agency may not rely on incorrect assumptions.") (citing 40 C.F.R. § 1500.1(b)).

Regarding temperature, the Forest Service failed to provide any data in support of its conclusion that Project activities would cause no measurable increase in stream temperatures. *See Cent. Or. LandWatch v. Connaughton*, 905 F. Supp. 2d 1192, 1196 (D. Or. 2012) ("It is not enough for the Forest Service to simply conclude that there is no or little impact to water temperature due to the Project without supporting reasoning, analysis, and data."). The FEIS repeats, over and over, the bare conclusion about no measurable increase, *see* AR17676, 17678, 17693, 17711, 18061, but repetition alone does not make something true. *See Great Basin Mine Watch v. Hankins*, 456 F.3d 955, 973 (9th Cir. 2006) ("[V]ague and conclusory statements, without any supporting data, do not constitute a 'hard look' at the environmental consequences of the action as required by NEPA.").

Regarding turbidity, the Forest Service simply did not evaluate the Project's impacts on this critical and required measure of water quality. In carrying out a NEPA analysis, the agency is guided by the underlying statute governing its action. *See Or. Natural Desert Ass'n v. U.S. BLM*, 625 F.3d 1092, 1109 (9th Cir. 2008) ("[T]he considerations made relevant by the substantive statute driving the proposed action must be addressed in the NEPA analysis."). Here, the Forest Service's action is dictated and governed by NFMA as implemented by the Ochoco Forest Plan. *See* 16 U.S.C.

[18] According to the FEIS, Alternative 2 would generate 17.8 MMBF, while Alternative 3 would generate 15.3 MMBF. AR17904–05. The principal difference between the two alternatives is that under Alternative 3, "there would be no commercial thinning" within RHCAs. AR21474. Thus, the 2.5 MMBF difference in volume between the two alternatives (17.8-15.3), is principally attributable to the RHCA commercial thinning in Alternative 2.

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§ 1604(i). As discussed above, one of the two parameters used by the Forest Plan to address water quality is turbidity, AR705, which is codified in the Forest Plan as a binding standard. AR1644. The failure to evaluate the Project's impact on stream turbidity, and indeed, the express disavowal of any obligation to do so, violated NEPA. *See id.* at 1121–22 (agency violated NEPA where it refused to consider an issue—wilderness characteristics—that the agency had a duty to manage).

IV. REMEDY

Vacatur is the presumptive remedy under the APA for violations of NFMA and NEPA. 5 U.S.C. § 706(2)(A); *see also Cal. Commy's Against Toxics v. U.S. EPA*, 688 F.3d 989, 994 (9th Cir. 2012) ("[W]e have only ordered remand without vacatur in limited circumstances."). It is the agency's burden to demonstrate that vacatur should not result because (1) the agency's errors were not serious, and (2) the disruptive consequences of vacatur would be "severe." Defendants cannot make those showings here. *See, e.g.*, *id.* (identifying wiping out a species of snail and endangering an entire region's power supply as "severe" consequences).

LandWatch, however, seeks a more tailored remedy commensurate with the narrow scope of this lawsuit. Specifically, LandWatch requests only partial vacatur of the ROD with respect to the authorization of logging activities in RHCAs (approximately 730 acres). LandWatch also requests partial vacatur and remand of the FEIS regarding the analysis of: (1) road density; (2) elk special habitats; and (3) riparian areas and water quality. Courts in this judicial district have found partial vacatur to be an appropriate remedy in timber sale cases. *See League of Wilderness Defenders v. U.S. Forest Serv.*, No. 3:10-cv-01397-SI, 2012 U.S. Dist. LEXIS 190899 (D. Or. Dec. 10, 2012).

V. CONCLUSION

For all of the foregoing reasons, LandWatch respectfully asks the Court to grant its *Motion for Summary Judgment*, hold unlawful and partially set aside the Forest Service's FEIS and ROD, and remand to the agency to comply with NFMA and NEPA.

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Respectfully submitted,

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Portland, OR 97214
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19101 [in 18451–20846] **19101**	2016	*Jackle/ODFW*, Ochoco Summit Trail – Wildlife and Vehicle Use Summary
19173–19198 [in 18451–20846] **19187**	03/2013	*McCorquodale/WDFW*, A Brief Review of the Scientific Literature on Elk, Roads, & Traffic
19537–19599 [in 18451–20846] **19571**	02/2003	*ODFW*, Oregon's Elk Management Plan
19600–19609 [in 18451–20846] **19600**	2000	*Phillips & Alldredge*, Reproductive Success of Elk Following Disturbance by Humans During Calving Season
19763–19776 [in 18451–20846] **19764**	2000	*Rowland, et al.*, Elk Distribution and Modeling in Relation to Roads
19777–19788 [in 18451–20846] **19783**	2005	*Rowland, et al.*, Effects of Roads on Elk: Implications for Management in Forested Ecosystems
19803–20063 [in 18451–20846] **19832, 19834**	05/1996	*Stuart, et al./ODFW*, Crooked River Basin Plan – Ochoco Fish District
20063–20079 [in 18451–20846] **20064, 20065**	2007	*Stuart, et al.*, Redband Trout Investigations in the Crooked River Basin
20158–61	09/30/2019	*Elysia Retzlaff/Paulina Ranger District*, Notes Regarding Objection Resolution Meeting
20847–20909 [in 20847–20988] ***passim***	11/04/2016	*Amy M. Stuart*, Expert Report
20910–20938	11/04/2016	*Jonathan J. Rhodes*, Expert Report

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[in 20847–20988] **20918, 20920, 20933**		
20939–20988 [in 20847–20988] ***passim***	11/04/2016	*Michael G. Gerdes*, Expert Report
21062–21070	10/15/2019	*Central Oregon LandWatch*, Objection Resolution Proposal
21091–21095 **21095**	11/05/2019	*Johanna Kovarik/Paulina Ranger District*, Letter regarding clarifications on objection issues and modifications to the proposed alternative for objection resolution
21096–21100 **21098–21100**	11/06/2019	*Shane Jeffries/Ochoco National Forest*, Letter regarding response to FOIA request with attached Rationale for Elk Priority Habitat Mapping
21105 **21105**	11/14/2019	*Amy Stuart/Central Oregon LandWatch*, Correspondence re: Objection Issues
21106 **21106**	11/14/2019	*Johanna Kovarik/Paulina Ranger District*, Correspondence re: Objection Issues
21107–21110	11/17/2019	*Amy Stuart/Central Oregon LandWatch*, Counterproposal for objection resolution
21203–21247 **21205**	11/18/2019	*Shane Jeffries/Ochoco National Forest*, Letter regarding response to objection #19-06-07-0004-218(B)
21390–21394 **21393, 21394**	11/24/2019	*Amy Stuart/Central Oregon LandWatch*, Letter regarding further comments on Black Mountain for the record based on a recent site visit to the project area
21452–21593 ***passim***	12/16/2019	*Johanna Kovarik/Paulina Ranger District*, Record of Decision – Black Mountain Vegetation Management Project

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ATTACHMENT C

CENTRAL OREGON LANDWATCH COMMETNS ON MILL CREEK DRY FOREST RESTORATION PROJECT DRAFT ENVIRONMENTAL ASSESSMENT

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September 13, 2023

File via: https://cara.fs2c.usda.gov/Public/CommentInput?Project=58081

Jennifer Abernathy
NEPA Planner
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.

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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.

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[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.

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[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).

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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]

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[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.

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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]

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[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

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Further, the Drat 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 temperature[60]

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; *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 capability[69]

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

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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

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[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 ODFWs 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:

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[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

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[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 15Protect 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]

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[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 15Protect 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 Wildrness 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 ODFWs 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 ODFWs 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 ODFWs 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]				
	CT	**NCT**	**BM**	**RX**	**Total MA-F20 Acres**
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 Witner 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]

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[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 piliated woodpecker habitat, presents the impact on the forest scale, as opposed to providing a Project-specific habitat analysis. In speaking about habitat outside of OGMAs 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

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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:

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[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

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> …in 2001–2005, Oregon's net wood product emissions were 32.61 million tCO_2e, 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 tCO_2e 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 products[155]

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:

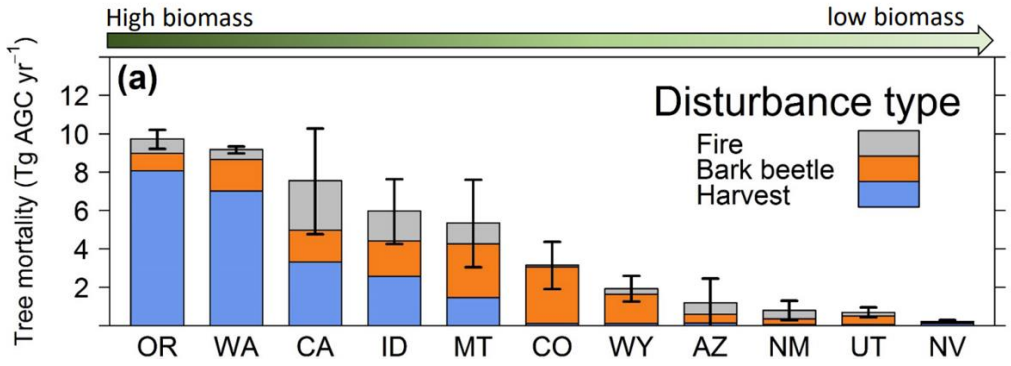

Figure 3. Mean annual tree mortality from fires, bark beetles, and timber harvest on forestland from 2003–2012 for each state in the western US. Tree mortality was quantified as the amount of aboveground carbon (AGC) stored in tree biomass killed by disturbance. (Berner et al. 2017)[158]

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, 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
[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

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[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; 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

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

Thank you,

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ATTACHMENT D

SURVEY FOR CLOSED ROADS IN THE OCHOCO NATIONAL FOREST MILL CREEK VEGETATION MANAGEMENT PROJECT AREA: WHAT DID WE LEARN?

Surveys for Closed Roads in the Ochoco National Forest Mill Creek Vegetation Management Project Area: What Did We Learn?

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Great Old Broads for Wilderness, Central Oregon Bitterbrush Broadband with Assistance from Oregon Wild, Central Oregon LandWatch, and Juniper Chapter of the Sierra Club

Abstract

The Great Old Broads for Wilderness (Broads) are concerned about the high density of roads on the Ochoco National Forest (Forest) particularly roads that are designated as Maintenance Level 1 (ML-1) "closed" and "decommissioned" roads but receive unauthorized vehicular use by the public. The Broads conducted road surveys in the Mill Creek Vegetation Management Project Area in the summer and fall of 2021 after surveying the Black Mountain Vegetation Management Project area in 2020. Like the Black Mountain Project area, the Mill Creek Project area will receive extensive vegetation treatments along with new construction and re-construction of temporary and Forest system roads. Roads that are depicted and evaluated as closed or decommissioned on a map but are functionally open, cause the same impacts to fish and wildlife species and their habitats as open roads. Many of the closed and some of the decommissioned roads on the Forest are not physically blocked and the public has no way of knowing the roads are closed unless they use a Motor Vehicle Use Map (MVUM) to determine whether the road is open for public use or not. We located and surveyed 139 ML-1 closed and decommissioned roads designated by Forest Service road number in the Project area from July to December 2021 to determine their status of use. Of the 139 roads we found, 72 roads that were closed, decommissioned, or user created were receiving unauthorized vehicular use, 35 roads were closed and/or decommissioned primarily due to vegetation growth of which some had physical barriers, and 13 roads were not surveyed. We found that 66% of the ML-1 closed roads (71 of 106 ML-1 roads surveyed), 5% of the decommissioned roads (1 of 20), and several user-created roads were documented in the Project area that had unauthorized vehicular use. The latter appeared to be user created roads that were not on any map and were driven by the public.

Introduction

The Forest has a high density of roads across the landscape except in designated Wilderness Areas and some special Management Areas. Most of the extensive road system has been in existence for more than 40-50 years and were generally constructed for access to timber harvest areas (cited from Black Mountain Final Environmental Impact Statement (FEIS) p. 275).

The Mill Creek Project Area encompasses 36,430 acres of which approximately 1/3 is the Mill Creek Wilderness (13,205 acres) (Mill Creek Draft Environmental Assessment). The Forest Service designates areas of the forest by a management area (MA). Much of the Mill Creek Project area is in MA-F22 (General Forest – 14,006 acres) while there are smaller MAs identified as Winter Range (5,928 acres), General Forest Winter Range (208 acres), Steins Pillar Recreation area (981 acres), Summit Trail Visual

Corridor (756 acres), Old Growth (602 acres), and Developed Recreation (Wildcat Campground – 61 acres). Management Area designation determines the type of vegetation management treatments and legally open road densities in each MA (Mill Creek Draft EA, Table 1, p. 4).

The Forest Service under the 2005 Travel Management Rule implemented a new road closure system in 2011 in the Forest. Prior to that all roads were open unless designated closed and Forest users had motorized access to anywhere on the forest that they could drive as long as they did not cause resource damage such as wildlife disturbance, damage to meadows and scablands, and the spread of weeds. Under the 2011 Travel Management Plan (TMP), Forest users are only allowed to use open roads that are designated on the MVUM maps. In addition, under the Forest Land and Resource Management Plan (LRMP) (USDA 1989), the Forest has a standard of a maximum of 3 miles of open road per square mile in General Forest MA (LRMP 4-259) and a maximum of 1 mile of open road per square mile in winter range management areas. This standard is used by forest personnel to determine whether a proposed project complies with or violates the forest standard for road densities.

Forest Service roads are assigned a Maintenance Level (ML) of 1-5 depending on the service level provided and maintenance required for the road (Mill Creek Draft EA p. 214-215). Open roads are defined as all roads that the public can legally drive and are designated ML 2-5 roads. ML 2-5 roads are open to motorized traffic and receive varying levels of maintenance depending on the service provided (FSH 7709.59). The Forest Service states that "Operational Maintenance Levels define the degree of maintenance required for a specific road and the level of service which that road provides, consistent with road management objectives and maintenance criteria (Forest Service Handbook (FSH) 7709.58, Transportation System Maintenance Handbook)." ML 1 roads are considered "closed" which means they are suitable for nonmotorized uses such as pedestrians and equestrians but closed to motorized traffic and receive minimal custodial maintenance (Mill Creek Draft EA, p. 214). Appropriate traffic management strategies are "prohibit" and "eliminate" all traffic (FSH 7709.59_63.32). It is prohibited to possess or operate a motor vehicle on ML 1 roads (36 CFR 261.15) and closed and decommissioned roads are not shown on MVUM maps.

The Mill Creek Draft EA reported pre-project roads in Table 72 (p. 215) of 73.5 miles ML-1, .24 miles of ML-1 (private), 48.37 miles of ML-2, 6.61 miles of ML-3, and 3.13 miles of ML-4. Subtracting the wilderness area, yields a road density of 3.61 miles per square mile outside the wilderness while subtracting the alleged closed roads yields a density of 1.64 miles per square mile of open road density. However, the open road density of only using ML 2-5 designated roads assumes all ML 1 "closed" roads in the project area are not driven, and that there are no additional (i.e., undesignated, temporary hauling roads, user-created routes) roads with the Project area. We know that is not true.

The following two paragraphs enumerate Forest and project specific open road densities as compared to the Project calculated open road densities.

The 2003 Ochoco Forest Roads (Roads) Analysis stated in Chapter 2 that "In most areas [on the forest] existing open road densities are higher than the identified objectives. The Trail System and Off-Highway Vehicle Management and Development EIS completed by the Forest in 1996 found open road densities

ranged from 0 to > 12 mi/mi^2. Average road densities in General Forest and Winter Range designations were 4.01 mi/mi^2 and 3.14 mi/mi^2 respectfully" (USDA 2003). The 2003 Roads analysis also reported that roads were constructed in close proximity to or across streams, contributing to sediment instream, and that the current road system has increased the hydrologic network causing water to flow more quickly from most 5th field watersheds.

The Broads surveyed the Black Mountain Project area east of Big Summit Prairie in 2020 and found that numerous closed and some decommissioned roads were in fact open and driven by the public. We surveyed the Mill Creek Project area at the west end of the forest in 2021. The high density of open, closed, and decommissioned roads that are driven by motor vehicles in the Forest impact aquatic and wildlife species and their habitats in a variety of ways. Essentially these "closed" or "decommissioned" roads that are driven by motor vehicles have the same impact as an open road. For wildlife species, impacts from open roads and closed roads that are driven include loss of habitat, habitat fragmentation and reduced connectivity, direct and indirect mortality, increased stress and impaired reproduction, and alteration of habitats by increased invasive plant and animal species.

For streams and aquatic species, forest roads and associated activities (such as logging roads or off highway vehicle trails) increase the hydrologic network connecting uplands with streams, alter peak flows and contribute to increases in sediment and turbidity. Riparian areas, streams and wetlands occupy a small percentage of the landscape but are sensitive and more vulnerable to destruction, and their impairment is critical because of their scarcity and importance to riparian dependent aquatic and terrestrial species.

Similarly, wetlands serve essential functions, such as improving water quality by filtering sediments, nutrients, and contaminants from the water column (US Environmental Protection Agency 2002). Wetlands also provide essential habitat for a wide variety of plants and animals including federally threatened, endangered species, as well as sensitive species. For example, the Columbia spotted frog and redband trout are aquatic federal species of concern in the Mill Creek project area. Riparian areas and wetlands are a small percentage of forest lands but are more productive in plant and animal biomass and higher in species biodiversity than surrounding areas. When the Forest Service underestimates the road density in a project area by only including legally open roads, and discounts vehicle use of unauthorized roads, the Forest underestimates the impact to other forest resources including fish and wildlife species and their habitats, riparian areas and wetlands, and water quantity and quality in streams.

Methods

The Mill Creek Project is located toward the west end of the Ochoco Forest and northeast of the town of Prineville (Figure 1). The purpose of the 36,430-acre Project is to restore characteristic conditions in the Project area, thereby increasing resilience to insects, disease, fire, and drought (Mill Creek Draft EA p. 2). The Project will implement commercial harvest, noncommercial thinning, prescribed burning, hardwood enhancement and stream restoration, new road construction, temporary road construction, and reopen "closed" roads.

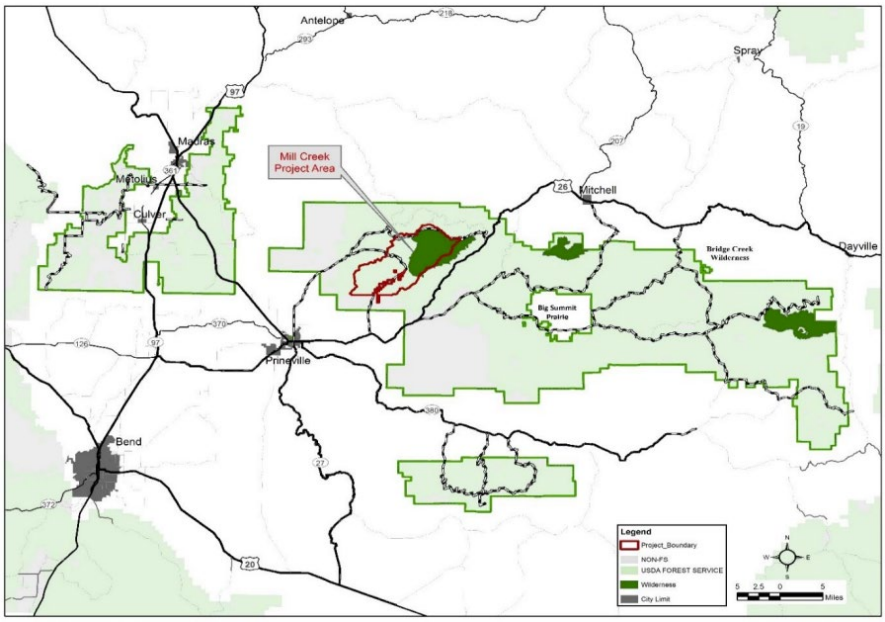

Figure 1. Mill Creek Vegetation Management Project vicinity. The project is located approximately 12 miles northeast of the City of Prineville, Oregon (Source: Mill Creek Draft EA).

The Mill Creek Draft EA and site visits with Ochoco Forest staff provided maps of open and closed roads (Figure 2), with the following map delineating “closed” roads in the thin red lines while “open” roads are black lines. However, the maps in the Draft and Final EA failed to show decommissioned roads on the administrative maps for the Lookout Mountain, or newly discovered roads not represented on any maps, nor any temporary roads and unauthorized routes and user-created trails.

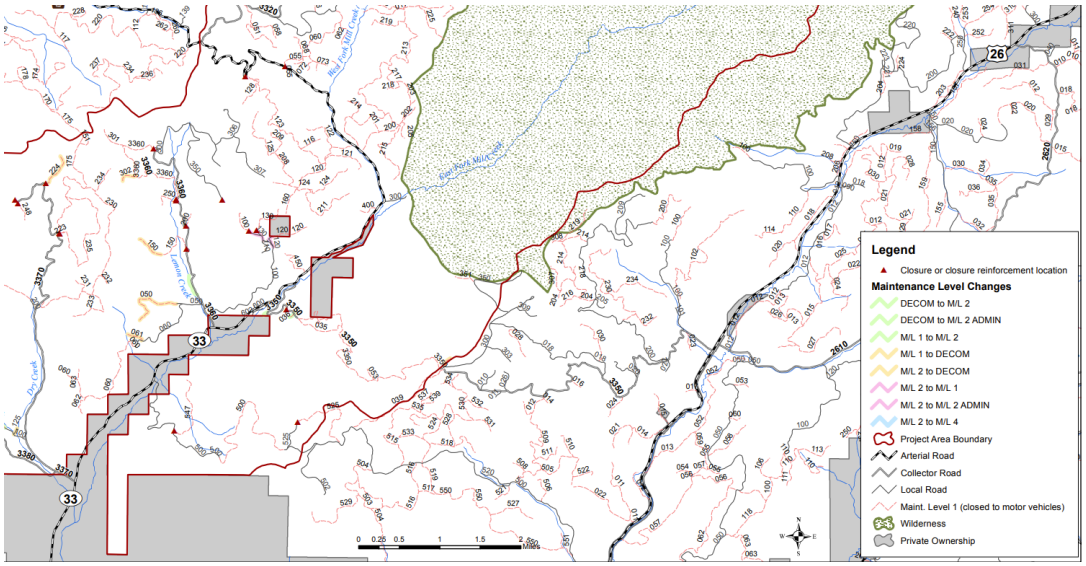

Figure 2. Portion of the Mill Creek Project area with open (black lines) and closed (thin red lines) roads. These maps failed to include roads on the administrative maps or other roads found on the ground.

Many “closed” roads are well driven by members of the public that are indifferent or unaware of legal road closures. All-terrain vehicles (ATVs) and utility terrain vehicles (UTVs) are commonly used by members of the public that disregard motor vehicle use maps (MVUMs). MVUM maps only delineate open roads. Figure 3 is an example of an area between the West Fork of Mill Creek and the Mill Creek Wilderness that is heavily used by ATVs and UTVs in disregard of road closures with access from breached road closures from the 3320-050 road.

Figure 3. The West Fork of Mill Creek bisects the google earth photo from the upper middle to lower right portion. Note the roads and trails throughout most of the picture in an area closed to motorized vehicles.

Members of the Broads surveyed ML 1 “closed” and “decommissioned” roads in the Mill Creek Project area (Figure 1) during the summer through late fall of 2021 to assess the status of closed or decommissioned roads. We evaluated each road to determine if each closed road was physically closed or had a barrier, and/or if they had been driven that year. Open roads were determined using the Forest MVUM maps #2 for the Project area, while closed and decommissioned roads were determined using maps from the Ranger District Administrative Maps available for purchase on Avenza Maps, a mapping application, and the draft map of roads shown in Figure 2. The administrative map used for the project area was the Prineville Ranger District Map (Lookout Mountain) (1983) map. Roads on the Ranger District map and not on the MUVM maps are many closed or decommissioned roads in the Project area. However, because the administrative map is decades old, the Broads found numerous roads on Forest Service lands that were unmarked with any road system number, which were well driven, and not on

either MVUM or Ranger District administrative maps. Surveyors documented additional unmarked roads not found on any maps.

The Project area was broken into survey areas based on the main roads accessing the project area and each area was assigned to teams of 1 to 2 people per team. Each survey area encompassed one or more streams in the Forest including the mainstem Mill Creek, the West Fork, Evans Creek, Dry Creek, and others and tributaries. Each team was given a map of their sampling area delineating open and closed/decommissioned roads, and a list of roads to survey.

Each team documented their survey of closed and decommissioned roads determining if they were open and driven, open and driven with a breached barrier such as a log or berm, closed due to a barrier or vegetation growing in and obscuring the road, or not surveyed or found. The surveyors tabulated their observations and took photos of closed or decommissioned roads that were driven.

On the list of roads to survey, many but not all closed and decommissioned roads have a number based on the Forest Service road system with arterial, collector and spur roads having a either a 4-digit or 3-digit number. For example, the 33 (3300 road) is a main arterial road while several roads such as the 3360, 3370, 3380, and 3320 are connector roads. In addition, many roads have a 3-digit road number which can be either a connector road, or a spur road that ends in the forest.

All legally open, closed, and decommissioned roads were identified on maps so that teams could travel to the roads and determine their status. Roads were determined to have been driven by evidence of recent vehicle wheel tracks and current year's vegetation that had been flattened by vehicles. Surveyors took photos of each of the closed or decommissioned roads that had been driven in 2021 to document status of use and barriers. In many cases, the surveyors hiked closed roads that had been driven to determine how far vehicles had traveled on closed roads, and if there were any barriers further on the roadway not visible from the open road. In a few cases, the lower ends of spur roads from a main road are designated open for a certain distance and then legally closed for the remainder.

Some roads have seasonal winter road closures to protect wintering mule deer and elk that use lower elevations of the forest. The 3360, 3370, and 3380 are examples of roads closed with either gates or boulders to block use from December 1 to March 30. The 3360 road had a sign denoting the winter closure and a gate but was well driven by the public during the winter.

Results:

We surveyed 139 closed, decommissioned and user created roads in the Mill Creek Vegetation Project Area in summer and fall of 2021 (Table 1). Of the 139 roads, we did not survey 13 of the roads. We found 71 closed roads that were open and driven, most with no barrier, and extensively used by the public and 35 roads were closed and not driven. Of the 35 closed roads that were unused by the public, some had effective physical barriers (logs that had fallen, boulders that had been placed, or locked metal gates). Of the 71 closed but driven, many had no barrier or ineffective barriers such as small berms that had been breached. Most had no barriers to discourage public use. We did not document all of the user-created roads that we found but noted locations of some well driven user-created roads.

Table 1. Survey results of closed and decommissioned roads in the Mill Creek project area to determine if they were open and driven by the public in 2021. 66% of closed roads and 5% of decommissioned roads were open and driven by the public.

	Closed Roads		Decommissioned Roads		
Survey Results	Closed	Open but driven	Decommissioned	Decommissioned by driven	Total Roads Surveyed
Number of Roads	35	71	19	1	106
% driven by the public	67%		5%		

Many of the closed roads with barriers that had been breached had all-terrain vehicles ATV and UTV tracks. The advent of these vehicles has allowed forest users to successfully travel around or go over what few barriers that had been installed that were intended to eliminate motorized use.

The Mill Creek survey results were remarkably similar to the Black Mountain survey (2020) results for closed roads. In both cases approximately 2/3 of the closed roads were actively driven by motor vehicle drivers. These results are also similar to a survey done by the Oregon Department of Fish and Wildlife (ODFW) in 2016 in the 301,000-acre area (approximately 1/3 of the entire Ochoco Forest) of the "Summit Trail System", a proposed 137 mile Off Highway Vehicle trail system that included the Black Mountain Project area.

ODFW conducted a motorized vehicle survey on randomly sampled closed roads per the 2015 MVUM maps for 3 weeks from mid-May to early June 2016. By June 3, 2016, the last day of the survey, 60% of the closed roads had received motorized vehicle use (Jackle 2016). During the course of the survey, we found user several user-created roads and ATV and UTV trails scattered throughout the project area that were not on any map but were well used.

The following are some of the more egregious examples of roads that were driven and causing damage to natural resources.

*The 3370-230 road is well used and goes to the top of the ridge separating the Mill and McKay creek drainages and connects with the Green Mountain OHV trail. The well used "closed" road connected to the 3300-170 road on McKay Creek.

*The 3360 and 3380 roads are supposed to be closed for big game winter range and have metal gates and boulders. Those sites were visited on January 1, 2022, and found well driven motorized use and a pickup was departing the 3360 road behind the road closure gate.

*The 3360-060 road is legally open 1 mile but the gate at the end of the accessible area was constantly down on multiple site visits and accessed numerous "closed" roads and illegal OHV trails such as in Schoolhouse Creek and across several ridge tops.

*The 3330-050 has a major OHV trail that drops down to the W Fork Mill Creek and accesses numerous "closed roads" and user created OHV trails throughout the entire W Fork Mill Creek area and even more critically between the W Fork Mill Creek and the Mill Creek Wilderness

The following figures are examples of closed roads that were surveyed in 2021 and demonstrate the ineffectiveness of using simply MVUM maps or small berms that are easily breached, to manage road closures (Figures 4-7).

4. 3300-129 road, well driven but not on any administrative or Forest Service map

5. A spur road from the 33 road with no number but a sign indicating closed to motorized use. Likely 132 spur.

6. End of legal portion of 3360-060. Gate was repeatedly taken down and had unauthorized use. The road accesses many miles of closed roads and user created motorized trails.

7. 3330 road along West Fork Mill Creek with fresh ATV tracks.

Discussion

The Ochoco Forest uses historic range of variability (HRV) to describe forest conditions. Historic ranges of HRV for the Forest were developed from the Viable Ecosystem Management Guide and other historic

information sources such as USGS land survey notes from the 1870's, fire history records, and the 1907 Forest Establishment Report for the Forest. Historically old forests had several major components that affected the distribution and density of tree species on the landscape including plant association groups, elevation, soil type, soil moisture and geology, seral conditions or structure, and frequency of and resilience to disturbance.

While forest resource managers use historic conditions and HRV to "restore" forest stands to attain resiliency the same attempts to restore riparian areas, streams and fish and wildlife habitats is not given the same effort. Restoration for forest health is focused on managing for tree species, size and density but does not address other aspects of restoration such as reducing and improving road systems, impacts from livestock grazing, and restoring riparian habitats and instream conditions in streams and rivers.

The umbrella of Forest Health guided by HRV is used to pursue vegetation management projects with the purpose of increasing resilience from wildfires. However, the Forest fails to significantly address high road densities that impact a variety of natural resources including water quantity and quality, fish and wildlife habitat, and fragmentation of native plant and wildlife populations. As is true for most vegetation management projects, the Mill Project is largely focused on the forest health component and less so on the fish and wildlife habitats affected by the large amount of roads on the landscape.

For the Mill Creek and Black Mountain Projects, Forest personnel only used roads designated as ML 2-5 "open" in their analyses of road density and failed to include ML 1 "closed" roads and other roads including undesignated roads, temporary hauling routes and user-created motorized trails in the Project area that are driven by the public. Forest personnel are arbitrary in their analyses and calculation of open road density. By using only ML 2-5 roads, the Forest can show compliance with the LRMP standard of less than 3 mi/mi^2 in general forest and 1 mi/mi^2 in winter range. However, it is well documented that all roads, especially those actively driven, have detrimental effects on fish and wildlife, and their habitats.

The Broads' surveys were conducted to determine the number of roads that were physically open and used on the landscape and did not evaluate road densities. However, it is clear from reviewing the project NEPA documents and maps, and administrative maps, that only roads that are considered legally open are evaluated for Forest Service management projects in terms of meeting road density standards. None of the temporary and user-created roads are addressed while typically closed roads are physically closed, but only if funding is available. Often it is considered "mitigation" and completed long after the project areas are harvested, thinned, and burned, if at all.

We support the recent Draft Decision Notice for the Mill Creek project, that states "Closure or decommissioning of about 6 miles of road; opening of 1 mile of road; and reinforcement of road closures at about 26 locations." However, we are concerned that this does not mitigate or even account for the 49 miles of new and existing temporary roads and unknown miles of user-created roads and trails. Once again, while there will be some road closures and decommissioning the large amount of temporary roads, which can often become permanently used by the public as user-created roads, will cause impacts to other natural resources that the public values.

Given that 83% of the Ochoco Forest area outside of wilderness areas are within one-half mile of an open designated road, the addition of even more roads as each vegetation management project is implemented, means long term cumulative impacts to other natural resources. The following review of road impacts to fish and wildlife species summarizes a large body of research that show how roads harm other resources including water quantity and quality, and fish and wildlife species and their habitats.

***Impacts to Aquatics*:** Sediment is the greatest pollutant of forest streams, and in the absence of wildfire, forest road networks are the main annual sources of sediment in forest watersheds (Elliot et al. 2011). Numerous authors have reported the impacts of high road densities on streams and aquatic life. Overgrown and revegetated roads that are cleared and used for logging traffic increase erosion rates by 100-fold (Foltz et al. 2009). Years of compaction by vehicles effectively and permanently impacts runoff and sedimentation from lack of infiltration. Stream crossings along with roads are also a major source of sediment to streams (Furniss et al. 1991). There is no "safe" threshold road density for aquatic species because negative impacts begin with the first road segment in a watershed, and highly significant impacts begin at road densities as low as 1 mi/mi^2 (Carnefix and Frissell 2009).

Research has demonstrated increased sediment production by traffic. Roads with heavy traffic generate 4 to 5 times the sediment of roads compared to roads with light traffic (Elliot et al. 2010). One study documented that heavily used roads increase sediment production by 130 times greater than abandoned roads (Reid and Dunne 1984), while another study showed that roads with traffic deliver 2 to 30 times sediment production compared to unused roads (Luce and Black 2001).

Sediment in streams from roads causes filling of pools, enlarged channel widths and widening width-to-depth ratios (Jackson and Beschta 1984; Lisle 1982). As road density increases, pool frequency quantity and quality decline (Lee et al. 1997) which are in turn correlated with declines in native trout such as bull trout, Westslope cutthroat trout, Yellowstone cutthroat trout, and redband trout. All species exist at low population levels in highly roaded areas. Pools filled with sediment support fewer fish and fish suffer higher mortality, while elevated levels of fine sediment adversely affect salmonid embryo survival, decrease fry emergence and juvenile densities, cause loss of winter carrying capacity and increased predation (Bjornn and Reiser 1991; Chapman 1988; Everest et al. 1987; Jensen et al. 2009; Magee et al. 1996; Scrivener and Brownlee 1989; Weaver and Fraley 1993; Young et al. 1991). High sediment load reduces intragravel dissolved oxygen, decreases space for aquatic life, and limits movement of young fry (Bjornn and Reiser 1991; Chapman 1988; Everest et al. 1987; Baird et al. 2012).

Sediment also increases turbidity which reduces aquatic insects and plankton and the foraging efficiency of fish. Sediment fills interstitial spaces in the substrate, reduces habitable area in streams, and when it exceeds 20 percent of the total area on the substrate, smothers fish and frog eggs, increases mortality and reduces aquatic insect and plant production (Bjornn and Reiser 1991). A 20% embeddedness of substrates with sediment fines is a threshold well established in the literature for decline of aquatic habitat (Bjornn and Reiser 1991, Rhodes et al. 2000). While few streams have been measured for embeddedness in the Forest, both Peterson Creek (45%) and Porter Creek (22%) exceeded the 20% embeddedness indicating impairment (USDA Summit OHV FEIS 2016).

Increases in stream temperature are correlated with roads constructed along valley bottoms and next to stream channels that can remove riparian vegetation and canopy cover. Higher stream temperature impacts aquatic species by raising stream temperatures above the tolerable range, increases vulnerability to disease, reduces metabolic efficiency; shifts fish species assemblages, and inhibits upstream migration (Beschta et al. 1987; Hicks et al. 1991). Climate change with warming and drying trends will further impact streams with reduced flows, further fragmenting populations and leading to local extinctions.

***Impacts to Wildlife**:* Roads fragment forests by dissecting large patches into smaller pieces and by converting forest interior habitat into edge habitat (Reed et al. 1996). Habitat fragmentation alters the distribution of wildlife species across the landscape and affects functions such as feeding, courtship, breeding, and migration. Fragmentation from roads and other human infrastructure has been identified as one of the greatest threats to biological diversity worldwide (Noss 1987, Wilcove 1987, Noss and Cooperrider 1994). Climate change further compounds the threats of habitat fragmentation and biodiversity loss. As animals migrate due to changing climate, landscape connectivity will be increasingly important to ensure the survival of many species (Hansen et al. 2001; Kettunen et al. 2007).

Road effects are pervasive and include consequences such as population and habitat fragmentation, accelerated rates of soil erosion, and invasion of exotic plants along roadways (Rowland et al. 2005). Reduced habitat connectivity disrupts plant and animal movement and dispersal, resulting in altered population dynamics and reduced potential for recolonization if a species is extirpated from a given habitat (Haddad et al. 2015). Disturbance from roads can create a range of physiological impacts including stress and mortality such as breaking nest-supporting vegetation, collapsed burrows, inner ear bleeding, and vehicle-animal collisions as well as altered behaviors and population distribution/dispersal patterns, which leads to declines in population size, survival, and productivity.

Elk are a “management indicator species” (MIS) for the Forest. Recent studies of elk in Montana showed that motorized routes were the strongest variable that determined elk movement, even more so than canopy cover during hunting seasons (Proffitt et al. 2012, Ranglack et. al. 2016). Significantly greater habitat protection for elk was recommended in order to maintain elk on public lands including recommendations to manage for areas that are at least 5,000-acre blocks of elk security habitat, have greater than 13% canopy cover, and are greater than 1 mile from motorized routes.

The Ochoco Forest is a mixed conifer forest located generally in canyons and draws associated with riparian areas and, in the western part of the forest, more open timbered ridge tops between forested areas. While the topography in the Ochoco Mountains is gentler compared to areas studied in Montana, it has higher road densities driven by forest users. Leaving large blocks of habitat unfragmented by roads in the Ochoco Forest is particularly important given the gentler topography, high road densities and climate change affecting our environment.

***Policy and Implementation*:** As stated above, ML 1 roads are considered “closed” which means they are designated as suitable for nonmotorized uses but closed to motorized traffic and receive minimal custodial maintenance. Appropriate traffic management strategies are "prohibit" and "eliminate" all

traffic (FSH 7709.59_63.32). The Forest Service road maintenance guidelines reports the following: ML 1 roads have the following attributes that include but are not limited to: motor vehicular traffic is prohibited, including administrative motor vehicle traffic, and the road entrance is physically blocked or disguised (USDA 2012).

In 1999, the ONF prepared a Final EIS and Record of Decision for the Mill Project Timber Sales (USDA Forest Service 1999). Along with several timber harvest and thinning activities, the project included 56 miles of road closures and decommissioning. However, 25 years later, many of the road closures in the 1999 NEPA planning are open, and in many cases, have been for years. The failure to implement and maintain closed roads by not physically blocking or disguising closed roads and failure to enforce road closures continues to impact and degrade fish and wildlife habitat and is a detriment to fish and wildlife populations.

The high road density from all ML roads, undesignated routes, and unauthorized trails on the landscape, fails to meet LRMP standards and causes ecological harm. There are many roads on the Forest. Unlike forest health, road densities are not evaluated in the context of HRV even though in 1870-80 there were few roads on what was eventually designated as the Ochoco Forest. Motorized roads and trails cause forest fragmentation, destroy habitats, and cause disturbance while also providing avenues for the spread of invasive plants, human-caused fire starts, trash, poaching, and increased stream peak flow events which can result in increased sediment loads and degraded stream channels. Habitat disturbance and destruction is further complicated by the impacts of livestock grazing, particularly in riparian areas. None of these things contribute to a healthy forest ecosystem.

Numerous miles of unauthorized roads and trails in the landscape, whether closed, decommissioned, or user-created, are illegal to drive. When forest users see a road without any noticeable restrictions (i.e., gates, signs, or physical barriers) many people drive these roads in some cases knowing it is illegal and in other cases ignorant of road designation. Many members of the public are unaware of Travel Management rules that limit driving to open roads, or they do not have MVUM maps with them when driving in the forest, or they do not care.

The Forest Service staff completes surveys and analyses of resources such as transportation, forest, soils, wildlife, fish and aquatic resources, botany, recreation, and cultural resources for each project. They are intended to evaluate the “affected environment” and “environmental consequences” of a proposed project. In order to adequately assess the transportation system and its impacts on other resources, it is essential that the Forest personnel physically survey all roads in the proposed Project area, including those designated as closed roads, and over time enforce compliance to deter unauthorized use. In both our study areas in the Black Mountain and Mill Creek project areas, and in a similar study conducted 4 years ago by ODFW, we found that over 60% of the roads are not physically closed and are driven by the public.

Conclusion and Recommendation

We conclude from our road surveys in the Black Mountain and Mill Creek Project areas that the majority of the roads identified as closed are in fact not physically closed and are driven. As shown in Figures 4-7,

many of the ML 1 roads are open and the forest users drive them. Road densities including the closed but driven roads likely mean that the project area outside the Mill Creek Wilderness fails to meet the forest standard of 3 mi/mi^2 in General Forest and definitely fails to meet the road density standard of 1 mile/mile^2 in both winter range management areas. Failing to disclose the correct information to the public distorts information and failure to follow through with implementation of maintenance of closures leads to a lack of public trust in the Forest Service and their actions. We hope for a stronger commitment to implement road closures in the Mill Creek project area since road closure and decommissioning is often done long after vegetation treatments. We appreciate that there are new efforts in the Forest to close some roads although we are concerned that it may be based on grant funding. We support this work. It must be done as soon as possible.

The 2011 Travel Management Plan and subsequent MUVM are now in the 13th year of implementation. The Forest must initiate efforts to meet its obligation to manage fish and wildlife populations and their habitats per LRMP standards by effectively managing and enforcing the motor vehicle policy outlined in the TMP and MUVM.

The Broads will continue to monitor ongoing and future Forest projects to determine compliance with LRMP standards for road densities. It is hoped our monitoring efforts will aid the Forest in project planning and implementation and result in many more effective road closures. We are sharing the results of this report to aid in the closure of many of the closed and decommissioned roads that are currently driven by the public.

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