July 9, 2020

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Medford BLM
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RE: Bear Grub Timber Sale EA Comments
DOI-BLM-ORWA-M060-2020-0001-EA

Ms. Brown:

Thank you for accepting these comments concerning the Bear Grub Environmental Assessment (EA) from the Klamath Siskiyou Wildlands Center (KS Wild) on behalf of Oregon Wild and Cascadia Wildlands. Contact information for our organizations may be found at the conclusion of this document. Please send our organizations hard copies of the forthcoming decision document for the Bear Grub timber sale.

Our organizations are often supportive of small-diameter thinning projects, and we remain steadfastly opposed to the logging of mature forest stands, significant reductions in overstory forest canopy, and construction of new logging roads in these impaired watersheds. We join with our neighbors in opposing logging prescriptions that increase fire hazard while removing wildlife habitat. We are particularly opposed to logging that downgrades or removes forests that currently provide the habitat and ecosystem benefits associated with Northern spotted owl (NSO) Nesting, Roosting and Foraging (NRF) habitat and group selection logging that replaces mature forest stands with second-growth early-seral timber stands.

We are concerned that BLM timber planers appear to be interpreting the 2016 RMP as precluding meaningful collaboration or the implementation of meaningful conservation sideboards for actions on public lands located in the Harvest Land Base (HLB) while targeting Late Successional Reserve (LSR) wildlife habitat with logging treatments that are indistinguishable from BLM treatments solely designed to produce timber volume. We encourage the agency to embrace an approach to project planning that allows community values and concerns to be incorporated into project layout and design rather than to continue on a path that ignores values other than timber production targets.

The BLM's insistence on removing NRF habitat across the landscape while logging adjacent to recreational trails and increasing sediment production to impaired waterbodies necessitates completion of an EIS for this highly controversial project.

BIASED PROJECT NEED STATEMENT

Through crafting an extremely narrow project "need statement" (EA pages 1-5) the BLM intends the NEPA process to result in a pre-ordained and inevitable outcome in which mature and late-seral forests are logged in the HLB and LSRs in order to meet arbitrary timber targets that the BLM has established for itself.

While the Bear Grub EA contains three separate logging alternatives, the biased and narrow preference (not need) for the BLM to produce a specific volume of timber precludes a reasoned analysis of project tradeoffs or an informed project decision. The biased need statement is designed not to implement the flexibility and discretion in harvest types that is clearly allowed for in the RMP, but instead to ensure an outcome that reflects the BLM's preference for logging both the HLB and LSR land use allocations regardless of the significant impacts to wildlife, watersheds, recreation and fire hazard in the project area.

The courts have held that in defining a very narrow purpose and need, planning agencies run afoul of NEPA:

> The "purpose" of a project is a slippery concept, susceptible of no hard-and-fast definition. One obvious way for an agency to slip past the strictures of NEPA is to contrive a purpose so slender as to define competing "reasonable alternatives" out of consideration (and even out of existence). The federal courts cannot condone an agency's frustration of Congressional will. If the agency constricts the definition of the project's purpose and thereby excludes what truly are reasonable alternatives, the EIS cannot fulfill its role. Nor can the agency satisfy the Act.

Simmons v. U.S. Army Corps of Engineers, 120 F.3d 664, 666 (7th Cir. 1997) (citations omitted).

The courts have recognized that agencies bring a degree of expertise to determining the scope of a particular project, but this deference is not unlimited:

> Deference . . . does not mean dormancy, and the rule of reason does not give agencies license to fulfill their own prophecies, whatever the parochial impulses that drive them. Environmental impact statements take time and cost money. Yet an agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative from among the environmentally benign ones in the agency's power would accomplish the goals of the agency's action, and the EIS would become a foreordained formality.

Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 196 (D.C. Cir. 1991) (citation omitted). The stated goal of a project necessarily dictates the range of "reasonable" alternatives and an agency cannot define its objectives in unreasonably narrow terms. *Id*.

"Project alternatives derive from an [EIS's] 'Purpose and Need' section." *City of Carmel-by-the-Sea v. U.S. Dep't of Transp.*, 123 F.3d 1142, 1155 (9th Cir. 1997). Thus, a court begins by determining whether or not the Purpose and Need Statement was reasonable. *Id.*; *see also Friends of Southeast's Future v. Morrison*, 153 F.3d 1059, 1066-67 (9th Cir. 1998); *Westlands Water Dist. v. U.S. Dep't of Interior*, 376 F.3d 853, 865 (9th Cir. 2004). The BLM's statement of Purpose and Need in the Bear Grub EA is not reasonable.

In a project area adjacent to many homes and communities deeply vested in public lands and their management, the BLM failed to include in their purpose and need the RMPs direction for Uneven-aged Timber Area (UTA) land use allocations (LUAs) to "[t]reat fuels to improve, enhance, or maintain landscape and ecosystem resilience. Identify sites for fuels treatments based on risk of large-scale, high-intensity/high-severity fire, operationally strategic locations, or proximity to highly valued resources and assets." (RMP, 69). BLM proposes commercial harvest and fuels reduction adjacent to knowledgeable and involved communities yet fails to acknowledge the impacts to those persons most directly affected.

In fact, prior to this EA comment period and the online June public meetings regarding this project, the BLM had already marked the timber sale harvest units, attempting to ensure that "group selection" clearcuts will occur in both the HLB and LSR land use allocations. This confirms that the BLM intends to remove hundreds of acres of NRF habitat across the landscape and prevent the project and decision from being altered by the agency's analysis or by public commenting. The BLM has created a "purpose and need" designed to produce a specific policy outcome prioritizing timber production, rendering the EA planning process largely irrelevant to that preordained result. NEPA does not permit the BLM to rig the planning process in this manner.

Further, BLM's stated purpose and need to produce timber volume conflicts with the RMP's management direction and purpose of designating Extensive Recreation Management Areas (ERMAs) and Special Recreation Management Areas (SRMAs). Figure 3-10 in the EA indicates that most of the Bear Grub project area is designated as an ERMA or SRMA. There are even SRMAs within ERMAs and ERMAs within Areas of Critical Environmental Concern (ACECs). These layered special designations reflect the unique ecological values present in this landscape.

Out of the ten Resource Management Area frameworks provided in the Appendix to the EA, every single listed SMRA and EMRA ranks a 4.0 out of 5.0 on a scale measuring the targeted experience and benefits as described for each location. Of the ten frameworks, nine describe restrictions on Forest Management activities limiting timber harvest to certain circumstances where compatible with recreation objectives, not interfering with recreation opportunities, and maintaining setting characteristics. Yet within these SMRAs and ERMAs, BLM has placed and marked commercial and hazardous fuels units in the field before the decision on Bear Grub has been issued. This hasty action is out of line with the management actions and allowable use decisions outlined in the RMP and is thus arbitrary and capricious.

FAILURE TO TAKE A HARD LOOK

In our timely scoping comments, we asked the BLM to analyze and disclose the number of large diameter trees (greater than 20" DBH) proposed for logging. We also asked the BLM to

disclose Total Maximum Daily Loads (TMDLs) and Water Quality Restoration Plan (WQRP) requirements associated with 303(d)-listed waterbodies in the project area. Additionally, we requested that agency planners disclose the presence of "critical habitat" for Northern spotted owls and coho salmon in the project area. The Bear Grub timber sale EA neglected to adequately address these substantive comments.

The vast majority of significant environmental impacts associated with the logging of mature forests and the construction of logging roads, identified as issues during the scoping period, were "not analyzed in detail" and received a cursory dismissal in Appendix A of the Bear Grub EA. The BLM elected to address only a handful of self-selected issues in the body of the EA itself.

At A-8 the BLM reaffirms its refusal to analyze or disclose "in detail" the impacts of the proposed logging and road construction on noxious weed populations in the project area and instead relies upon a generic list of "project design features" (PDFs) that have continually failed to arrest the spread of noxious weeds throughout the Ashland Resource Area and the Medford District BLM.

At A-9 the BLM confirms that it is unwilling to analyze or disclose the impacts of its logging and road building agenda on the federally listed Gentner's fritillary (*Fritillaria gentneri*) "in detail."

At A-10 the BLM indicates that it will not analyze or disclose "in detail" the impacts of logging and road construction on Bureau Sensitive plant species that are located in and adjacent to logging units.

At A-16 the BLM reaffirms that it refuses to analyze and disclose the impacts of the Bear Grub timber sale on Timber Production Capability Classification (TPCC) "slope gradient" fragile soils that present a "high potential for surface ravel."

In contrast to almost every other western Oregon timber sale EA over the past 25 years, at A-21 Medford BLM timber planners contend that the agency need not analyze or disclose "in detail" the impacts of widespread NRF removal and LSR logging that is "likely to adversely affect" northern spotted owls and the habitat upon which they rely. Instead the BLM appears not to even acknowledge the impacts of its logging agenda on barred owl competition with Northern spotted owls. Further, the BLM not only refuses to implement Recovery Actions 10 and 32 of the Northern Spotted Owl Recovery Plan but goes as far as to pretend that they do not exist.

At A-24 the BLM states its preference to ignore impacts of the Bear Grub project on neotropical bird populations while making reference to a generic PDF that "recommends" fall or winter burning as opposed to burning nesting birds to death during the nesting season. The BLM refuses to disclose whether it will abide by this "recommendation" or to analyze what impacts will result should it elect not to follow its own recommendation.

CITIZENS' ALTERNATIVE

Our organizations proposed a reasonable action alternative based on previous BLM projects that was designed to meet the purposed and need for the Bear Grub timber sale in which:

- Fuels are reduced in the project area;
- Small trees in overly dense stands are thinned;
- Remaining mature forests and large diameter trees (over 20" inches DBH) are retained;
- Downgrading and removal of suitable spotted owl habitat is avoided;
- Existing roads are upgraded; and
- Road density is reduced.

The recommendations above are reasonable and have been successfully implemented by BLM Districts throughout Oregon. The Medford BLM is capable of planning and successfully implementing timber sale projects that produce wood fiber while retaining canopy cover and wildlife habitat, avoiding harvest of large-diameter preferred tree species, and reducing, rather than increasing, cumulative impacts to soil and watershed resources. Yet the Bear Grub EA refuses to consider implementing these reasonable sideboards utilized in previous successful "dry forest restoration" projects in southern Oregon and within the Ashland Resource Area.

Rather than analyze the above action alternative, the BLM in the Bear Grub EA avoided considering implementation perimeters that previously served as the basis for several dry forest restoration pilot projects in the Ashland Resource Area. As a result of assigning itself an arbitrary timber target, the BLM mistakenly suggests that consideration of restoration, ecology, fire management, and collaboration are rendered irrelevant.

COLLABORATION AND CONSENSUS-BASED MANAGEMENT

We previously requested, during the Bear Grub scoping period, that the BLM formally collaborate with stakeholders, organizations and persons who are interested in the development of the proposed action and alternatives. We pointed out that "the Department [of Interior] continues to encourage collaboration with the public in an approach to alternative development and decision-making. The implementation of any such approach is determined by the [Responsible Official]." Implementation of the National Environmental Policy Act (NEPA) of 1969, 73 Fed. Reg. 200, 61292 at 61294 (Oct. 15, 2008).

We suggested "Collaboration in NEPA - A Handbook for NEPA Practitioners," which has been reviewed by the Department of Interior. Council on Environmental Quality, *Collaboration in NEPA – A Handbook for NEPA Practitioners* (2007). We indicated that collaboration would be towards incorporating consensus-based management as described in 43 C.F.R. § 46.110. We note that § 46.110(c) states: "the Responsible Official must, whenever practicable, use a consensus-based management approach to the NEPA process." Finally, we noted that since time is of the essence, collaboration needs to begin soon.

The Medford BLM responded to these requests by ignoring them entirely and marking the timber sale units for gap creation mini-clearcuts prior to the public commenting period and during the first wave of the COVID-19 pandemic. These actions do not illustrate meaningful consensus-based management.

The DOI regulations provide for consensus towards an alternative and solicitation of relevant site-specific comments:

> Consensus-based management incorporates direct community involvement in consideration of bureau activities subject to NEPA analyses, from initial scoping to implementation of the bureau decision. It seeks to achieve agreement from diverse interests on the goals of, purposes of, and needs for bureau plans and activities, as well as the methods anticipated to carry out those plans and activities. For the purposes of this Part, consensus-based management involves outreach to persons, organizations or communities who may be interested in or affected by a proposed action with an assurance that their input will be given consideration by the Responsible Official in selecting a course of action.
>
> In incorporating consensus-based management in the NEPA process, bureaus should consider any consensus-based alternative(s) put forth by those participating persons, organizations or communities who may be interested in or affected by the proposed action. While there is no guarantee that any particular consensus-based alternative will be considered to be a reasonable alternative or be identified as the bureau's preferred alternative, bureaus must be able to show that the reasonable consensus-based alternative, if any, is reflected in the evaluation of the proposed action and discussed in the final decision. To be selected for implementation, a consensus-based alternative must be fully consistent with NEPA, the CEQ regulations, and all applicable statutory and regulatory provisions, as well as Departmental and bureau written policies and guidance.
>
> The Responsible Official must, whenever practicable, use a consensus-based management approach to the NEPA process.
>
> If the Responsible Official determines that the consensus-based alternative, if any, is not the preferred alternative, he or she must state the reasons for this determination in the environmental document.
>
> When practicing consensus-based management in the NEPA process, bureaus must comply with all applicable laws, including any applicable provisions of the Federal Advisory Committee Act (FACA).

43 C.F.R. § 46.110.

We specifically ask the BLM to take note of 43 C.F.R. 46.110(a), "[Consensus-based management] seeks to achieve agreement from diverse interests on the goals of, purposes of, and needs for bureau plans and activities, as well as the methods anticipated to carry out those plans and activities" and make meaningful attempts to achieve agreement from diverse interests. The "public meetings" BLM offered on the Bear Grub timber sale in June 2020 did not allow the public to weigh in or to communicate with the BLM about project prescriptions. The recorded meetings available at the E-Planning link for this project illustrate the BLM's inflexibility regarding integrating a reasonable community-based alternative into the NEPA planning. BLM did not have a conversation the public; agency representatives strictly read off pieces of paper and had no substantive exchange with participants. No members of the public

were allowed to speak and the BLM "answered" moderated self-selected questions. The BLM must acknowledge legitimate concerns from the public and stakeholders to the Bear Grub timber sale and take meaningful steps to resolve controversies and develop a consensus.

TIMBER PRODUCTION CAPABILITY CLASSIFICATION

In our scoping comments we noted that the forthcoming Bear Grub NEPA analysis must disclose the location and classification of Timber Production Capability Classification (TPCC) of forest stands the project area. We requested that the BLM discuss the agency's methodology for logging on TPCC lands and how this interacts with the BLM's interpretation of the O&C Act (43 U.S.C. §1181(f)) and its guidance regarding "annual sustained yield capacity." We also sought to learn if the agency believes that forest stands subject to log landing and logging road construction will be managed to ensure sustainable timber production or if they will be managed into future as areas in which conifers are not present and hence not producing timber volume or providing habitat values. The BLM addressed none of these questions and concerns in the Bear Grub EA and provided no evidence that these reasonable requests are outside the proper scope of site-specific project analysis.

BLM claims, "[t]he proposed fuels treatments in DDR-TPCC have the additional purposes to restore or maintain community-level structural characteristics, promote desired species composition, and emulate ecological conditions produced by historic fire regimes," (EA A-9), yet the EA fails to describe site-specific condition of the treatment areas.

It is not until page A-16 of the Bear Grub EA Appendices that the BLM acknowledges the existence of TPCC soils in proposed logging units. Despite the acknowledged presence of fragile "slope gradient FG" soils with a "high potential for surface erosion, the Bear Grub NEPA document contains no data, analysis, or disclosure of any information regarding TPCC FG soils. The public, and the decision maker, cannot know the location of such soils or what actions are proposed on TPCC soils or what the effects of those actions will be because the BLM refuses to disclose that information in violation of NEPA. The BLM's TPCC handbook requires documentation, "Upon completion of all field work, information must be clearly displayed on maps or overlays with all acreage figures checked against the master title plant." (BLM Manual 5251, .12B1). This information is necessary to disclose to the public to provide detailed and substantive site-specific comments and necessary to disclose to the decision maker as they evaluate alternatives for a decision.

The BLM acknowledges:

> Field surveys of the DDR-TPCC LUAs verified that the LUAs were non-forested lands and would not be productive for timber treatments . . . . The action alternatives also include transportation management actions that will facilitate access to units proposed for forestry management treatment in the Bear Grub VMP EA. Access and exit roads are within or pass through the HLB-UTA, LSR-dry, RR-dry, and DDR-TPCC LUAs.

(EA, 7). However, BLM does not disclose where these access or exit roads are, if there is road maintenance or construction occurring on TPCC soils, nor if TPCC soils underlie landing locations or yarding corridors.

The RMP management objectives for DDR-TPCC LUAs include: “Maintain the values and resources for which the BLM has reserved these areas from sustained-yield timber production.” (RMP, 54). BLM acknowledges in the previous quotation (EA, 7) that the DDR-TPCC sites are non-forested. However, BLM proposes fuel treatments on these LUAs. BLM has failed to analyze or disclose how the planned treatments will maintain the values of these LUAs consistent with the reasons for reserving them from timber production. Typically, fuels reduction efforts are best focused in dense forested stands that are overcrowded with small-diameter trees. BLM fails to describe how their treatments will be reducing the fuel load on non-forested reserves.

The Standard Operating Procedures for Upland Soil Productivity for Western Oregon report, “A Synopsis and Updated Guide of the Standard Operational Practices for Upland Soil Productivity in Western Oregon” (“SOP Guide”), authored by the BLM, describes in detail the framework of FM soils. This document requires the BLM to document how PDFs accomplish the reduction of impacts in the NEPA effects analysis. “Each written PDF should demonstrate how it accomplishes the intended reduction of impacts as part of the NEPA effects analysis; simply stating that "the impact would be minimized by employing SOPs is insufficient.” (SOP Guide, 5). The BLM fails to provide this effects analysis to the public or the decision maker in the Bear Grub EA or supporting documents.

BLM’s general statement, copied from the RMP, is not sufficient to articulate a rational connection between the facts found and the conclusions made. “The proposed fuels treatments in DDR-TPCC have the additional purposes to restore or maintain community-level structural characteristics, promote desired species composition, and emulate ecological conditions produced by historic fire regimes. (2016 ROD/RMP, pp. 55-56).” (EA, 9).

The BLM fails to include the following recommendations from the SOP Guide specific to TPCC soils for prescribed fire treatments:

> Consider using the Natural Resources Conservation Service (NRCS) interpretation for soil risk from burning entitled, "Potential Damage to Soil". The soils are described as having a Low, Moderate, or High potential for burning damage. The ratings indicate an evaluation of the potential impact of prescribed fires or wildfires that are intense enough to remove the duff layer and consume organic matter in the surface soil layer.
>
> The ratings of High, Moderate or Low are based on NRCS soil survey data (all westside districts have been surveyed) that consider the following criteria when the rating is assessed:
> a. The impact of fires (prescribed or wildfire) of moderate fireline intensity (116-520 btu's/sec/ft, flame lengths 4-8 feet) that provide the necessary heat to remove the duff layer and consume soil organic matter in the surface soil layer.
> b. Soils with a shallow surface layer lack the capacity to safely absorb the effects of fire.
> c. Steep slopes are more likely to erode if the protective duff layer is removed.
> d. Soil texture and rock fragment content relate to soil erodibility, vegetative recovery rate, and potential vegetative productivity.
> e. Medium textured soils, with their greater inherent water holding capacity, are more likely to be cooler and provide higher potential productivity.
> f. Soils with large volumes of rock fragments transmit heat to a greater depth in a

shorter period of time.
g. Soils with more than 2 percent organic matter are more resistant to sheet and rill erosion and have greater water holding capacity.

Recommended Practices:
1. Evaluate the need for burning as a site preparation tool on all soils based on the risk to soils, erosion hazard, plant community and/or fuel loading, and site preparation criteria.
2. When burning, avoid deep heating of the soil for long durations. Use the pile and bum method when practical to protect a large percentage of the nutrient capital.
3. Minimize burning on High risk rated soils. Bum when spring-like conditions exist, treat with alternative slash reduction methods such as pile and bum or scalp, and plant through deeper slash layer.
4. If burning is required on Moderate and Low risk rated soils: bum in spring-like condition& when soil and duff are moist to maximize retention of the duff layer, soil organic matter, and to prevent the consumption of the coarser woody debris.
5. Where feasible, have an ignition sequence which reduces the size of the flame length on slopes greater than 50 percent.
6. Minimize the acreage around the landing impacted by intense bums. Consider pulling only a portion of the accumulated slash and woody debris adjacent to landings onto the landings and back from the edges before burning. Leave some unburned slash around landings if a thinning operation but still meet fire hazard reduction needs. For regeneration harvest units, reduced slash loading prevents deep burning and extensive mop-up on landing perimeters.
7. Consider disposing of debris by chipping, and/or trucking chips. Where the fire hazard is not high spread debris away from the landing.

(SOP Guide, 21).

Further, the SOP guide language specific to "Mechanical Fuels Reduction and Biomass Removal" is not included in the EA:

> On Matrix lands for the Coos Bay District, Roseburg District, Medford District, and Klamath Falls Resource Area, a minimum of 120 linear feet of logs per acre greater than or equal to 16 inches in diameter and 16 feet long would be retained to decay for soil nutrients. Decay class 1 and 2 logs could be counted towards these totals. Down logs should reflect the species mix of the original stand. Coarse woody debris already on the ground would be retained.

(SOP Guide, 23).

Lastly, BLM fails to identify the particular classification of the FG soils within the Bear Grub project area are. BLM admits they are fragile and non-suitable for timber harvest, yet foregoes the specific classifications and concerns associated with that classification as information for the decision maker to consider. This information is necessary for the decision maker, ID team, and the public to have to form substantive comments regarding treatments within these areas.

NORTHERN SPOTTED OWLS

It appears that the BLM is refusing to implement Recovery Action 10 and Recovery Action 32 during the Bear Grub timber sale. The EA fails to disclose the impacts of the proposed logging on the recovery of the Northern spotted owl. Further, the EA fails to disclose the impacts of the proposed logging on barred owl encroachment. The EA also fails to disclose why the project is "likely to adversely affect" spotted owls and their habitat. (EA, 75). The EA fails to disclose the location of NRF stands in the HLB and the LSR that the BLM intends to downgrade or remove. (EA, 64).

We believe there is considerable risk that the BLM will not follow:

> The direction (RMP, 23) to "apply the concepts of Ecological Forestry . . . consistent with the owl recovery plan and the designation of critical habitat for the northern spotted owl."
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> The Management Objectives (RMP, 74) that encourage the BLM to "[e]nable forests to: (1) recover from past management measures, (2) respond positively to climate-driven stresses, wildfire and other disturbance with resilience, (3) ensure positive or neutral ecological impacts from wildfire, and (4) contribute to northern spotted owl recovery."
>
> The direction (RMP, 115) to "conserve and recover species that are ESA-listed, proposed, or candidates, and the ecosystems on which they depend."

The RMP directs "management direction" to recover from past management impacts, to respond positively to climate-driven stresses, and to ensure positive or neutral ecological impacts from wildfire. Logging of large diameter trees and the downgrading of existing NRF habitat are antithetical to these RMP objectives.

In contrast to almost every other BLM and Forest Service planning entity in Oregon the Medford BLM now contends that it need not analyze the site-specific and cumulative impacts of its NRF logging agenda that is "likely to adversely affect" owls and their habitat in detail. *See* EA, A-21. Rather than disclose and analyze the impacts of its logging agenda on this ESA-listed species the BLM at A-21 contends that the 2016 RMP relieves the agency of its NEPA duty to disclose and consider the impacts of removing owl habitat on the recovery and survival of owls in the area. In actuality, the RMP contains no information about the forests and owls in the Bear Grub planning area.

At A-22 the BLM discloses that the agency has not surveyed stands proposed for logging to protocol and does not intend to do so prior to issuing a decision to log the forests at issue. Also, at A-22 the BLM acknowledges that there are zero known NSO pairs within activity centers in the planning area. The extirpation and extinction of the species is being accelerated by BLM logging activities that it fails to analyze or disclose. The impacts of NRF removal in this project area are "likely to adversely affect" owls and their habitat while increasing barred owl encroachment. These effects are significant must be analyzed and disclosed in an EIS.

The BLM improperly tiers to the FEIS of the RMP as a surrogate for site-specific analysis of impacts to the twenty-five historic owl sites within the project area. (EA, A-23). BLM fails to

identify if treatments are proposed within core areas of these owl sites, or what the current habitat threshold for these sites is pre- and post-treatment.

NEPA case law is clear that tiering—the incorporation of a broad programmatic analysis into a subsequent site-specific analysis—is only permissible when that programmatic analysis actually conducts a site-specific analysis. *'Ilio'ulaokalani Coal. v. Rumsfeld*, 464 F.3d 1083, 1094–96 (9th Cir. 2006). Because the 2016 RMP final environmental impact statement (FEIS) expressly did not conduct a site-specific analysis of the Bear Grub project's effects on the NSO and instead only considers the general consequences of adopting a land management plan that covers 2.6 million acres without any kind of site-specific analysis, tiering is not appropriate in this case. The BLM provides no citations to the RMP FEIS demonstrating where this document conducted the requisite site-specific analysis of the effects of the Bear Grub project on NSOs in the project area. It could not, because the RMP does simply does not contain this analysis.

BARRED OWLS

Barred owl competition and displacement are significant concerns emerging in the status review for the northern spotted owl. The 2004 status review panel unanimously identified barred owls as a threat to the spotted owl. Courtney et al. 2004. Barred owls now occupy a large number of spotted owl sites, *id*. at 7-36, and the BLM needs to protect additional habitat to mitigate for this loss of available NSO habitat.

A well-known axiom of the species-area relationship from island biogeography holds that as habitat area increases, the number of cohabiting species also increases. *See* Tilman and Lehman 1997.

"The major causes of population and species extinction worldwide are habitat loss and interactions among species." Gaggiotti and Hanski 2004. Furthermore,

> The most robust generalization that we can make about population extinction is that small populations face a particularly high risk of extinction. . . . [E]mpirical support for the extinction-proneness of small populations has been found practically wherever this issue has been examined. . . . The loss of habitat reduces population sizes. . . . [L]arger habitat patches have larger expected population sizes than smaller patches. Therefore, other things being equal, we could expect large habitat patches to have populations with a lower risk of extinction than populations in small patches. . . . More generally, the relationship between patch size and extinction risk provides a key rule of thumb for conservation: other things being equal it is better to conserve a large than a small patch of habitat or to preserve as much of a particular patch as possible. . . . [T]here are likely to be many complementary reasons why large patches have populations with low risk of extinction.

Id.

From these ecological foundations, one can see that the barred owl, by invading and occupying suitable habitat and thus excluding spotted owls, has reduced the effective size of the reserves and thereby reduces the potential population of spotted owls. *See* Courtney et al. 2004 at 7-36. Extinction risk is increased by this loss of habitat and smaller population. *See* Gaggiotti & Hanski, *supra*, at 355-56. If we provide more suitable habitat, the population potential

increases, and the risk of extinction decreases. *Id*. at 356-58; Tilman & Lehman, *supra*, at 233. The most rational way to respond is to protect remaining suitable habitat and expand and restore the reserve system to provide more suitable habitat, thus increasing the likelihood that the two owl species can co-exist. *See Tilman & Lehman, supra, at 233-37.*

This view is corroborated by owl biologist David Wiens, who was interviewed on the Lehrer NewsHour. He said, "The more habitat you protect, the more you're going to alleviate the competitive pressure between the species. Rather than reducing it and increasing the competitive pressure between these two species, we need to provide as much habitat as possible for them." *Biologists Struggle to Save the Spotted Owl*, PBS NewsHour (Dec. 18, 2007, 6:30 PM), https://www.pbs.org/newshour/show/biologists-struggle-to-save-the-spotted-owl.

USGS biologist Robert Anthony agrees, stating, "If you start cutting habitat for either bird, you just increase competitive pressure." Craig Welch, *The Spotted Owl's New Nemesis*, Smithsonian Magazine (Jan. 2009), https://www.smithsonianmag.com/science-nature/the-spotted-owls-new-nemesis.

In the same article, USFS biologist Eric Forsman added, "You could shoot barred owls until you're blue in the face," he said. "But unless you're willing to do it forever, it's just not going to work." *Id*.

The barred owl-spotted owl habitat conflict is well-described by the modeling concept of "coupled map lattices," developed by physicist Kunihiko Kaneko. Solé and Goodwin 2000, at 184. The lesson from these models is that when habitat is abundant, competing species operate within the "coexistence regime" but when habitat becomes scarce the model switches to a new attractor and operates in the "exclusion regime." *Id*. at 184-187. This model strongly supports the idea that retaining more habitat increases the likelihood that spotted and barred owls can coexist, and if we eliminate reserves or continue to log suitable habitat in the matrix, then barred owls may competitively exclude and extirpate the spotted owls. Similar results are demonstrated in resource competition models described by Tilman et al. (1997). *See also Tilman & Lehman, supra 233.*

The Bear Grub EA contains no substantive information regarding barred owls and fails to implement the NSO Recovery Actions designed to mitigate barred owl encroachment.

PACIFIC FISHER

The BLM must review its proposed actions to determine whether or not special status species occupy or use the affected area or if habitat for such species could be affected by the project, and must modify, relocate, or abandon proposed actions that contribute to the need to list species under the ESA.

Please note that actual quantitative or qualitative information is provided in the EA about the baseline Pacific fisher population dynamics or habitat in the planning area in the context of the No Action Alternative. The BLM has previously acknowledged in general terms that the agency is aware that overstory reduction, road construction, and fragmentation are all threats to the continued existence of this species. Yet additional overstory reduction, road construction, and forest fragmentation are all proposed in this project while the actual impacts of these practices to the Pacific fisher are not disclosed to the public or the decision maker.

The unknown, undisclosed, and unanalyzed impacts of this project on Pacific fisher are particularly important because "[d]ispersal into and through the project area probably represents a pinch point because it is surrounded on three sides by open agricultural lands and rural development." (Sterling Sweeper EA, 3-91). Note that the Bear Grub EA makes no reference to this conclusion contained in the BLM's Sterling Sweeper EA concerning this planning area.

Rather than disclose (or avoid or mitigate) the impacts of its logging agenda on Pacific fisher, the BLM points to the only caselaw it is willing to acknowledge, an unpublished opinion from a district court. *Klamath Siskiyou Wildlands Center v. U.S. Bureau of Land Mgmt.*, 2007 WL 2688125, 2007 U.S. Dist. LEXIS 67452. The BLM's reading of this case is highly suspect.

Unlike in the case cited by the BLM, fishers are present in the Bear Grub project area, and the issue here is not supplementation of prior analysis, but agency compliance with its RMP guidance for Bureau Special Status (BSS) species. The district court opinion cited by the BLM as "precedent" regarding use of northern spotted owl habitat as a proxy for management of the fisher population has no such legal authority, and it is completely off-point from the instant case. Prediction of effects to fisher using habitat as a proxy is permissible only where the agency's "knowledge of what quality and quantity of habitat is necessary to support the species and . . . method for measuring the existing amount of that habitat are reasonably reliable and accurate." *Oregon Nat. Res. Council Fund v. Goodman*, 505 F.3d 884, 890 (9th Cir. 2007) (quoting *Earth Island Inst. v. U.S. Forest Serv*., 442 F.3d 1147, 1175-76 (9th Cir. 2006)).

Indeed, previously the Ashland Resource Area has acknowledged that "southwest Oregon NRF habitat varies greatly and one or more of these habitat components might be lacking or even absent." (Ashland Resource Area Cottonwood EA, 1-4). The BLM does not supply any reasonable basis to assure that its proxy method is reliable—indeed, its analysis in the Cottonwood EA undermines the reliability of its method in the Bear Grub EA. The BLM double-counts spotted owl NRF habitat as fisher denning and resting habitat even as it admits that owl habitat may not contain the structural elements required for habitat selection by fishers.

Zielinski et al. (2006) revealed a low correlation of spotted owl and fisher habitat at multiple scales in northern California, and cautioned:

> Although owl and fisher habitat are moderately correlated on federal lands, we cannot assume that federal lands can play the same relative role (i.e., contribution to overall population viability) for the fisher as they have been expected to do for the owl (USDA Forest Service and USDI Bureau of Land Management, 1994). Thus, we should not assume that fisher viability in northern California is insured by protections for the spotted owl included in Northwest Forest Plan.

This scientific information was included in the Sterling Sweeper EA and, again, overlooked by the BLM in the Bear Grub EA. (Sterling Sweeper EA, C-8).

Research funded by the U.S. Fish and Wildlife Service on denning ecology of female Pacific fishers in northwest California noted that coniferous trees no smaller than 105 cm (41.3 inches) diameter were selected as dens. Higley and Matthews 2006. Other research in California reported rest habitat selection by both sexes in the very largest available forest structure: the average size of live conifers selected for resting was 117.3 cm (46.2 inches) diameter, and the

average snag was 119.8 cm (47.2 inches) diameter. Zielinski et al. 2004. High-quality late-successional forest habitat as is known to be selected by fisher is present at very few locations in the Bear Grub project area, and the proposed timber sale will remove structural elements of preferred denning and resting habitat.

Where the BLM can quantify cumulative impacts to fisher habitat on Federal lands it fails do so. The BLM fails to even disclose the location of NRF habitat it intends to downgrade and remove, let alone the impacts of that removal. There is no analysis or data to support the cursory conclusions reached in the EA.

CUMULATIVE IMPACTS

In our scoping comments we asked the BLM to please provide a thorough cumulative impacts analysis of the proposed logging and road construction in combination with other federal logging and private logging activities and ORV use. The BLM denied this request and instead mistakenly contends that the 2016 RMP anticipates and discloses every significant impact that could possibly occur in the Ashland Resource Area.

One of the specific requirements under NEPA is that an agency must consider the effects of the proposed action in the context of all relevant circumstances, such that where "several actions have a cumulative…environmental effect, this consequence must be considered in an EIS." *Neighbors of Cuddy Mountain v. US Forest Serv.,*137 F3d 1372, 1378 (9th Cir. 1998) (quoting *City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1312 (9th Cir. 1990)). A cumulative effect is "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or persons undertakes such other actions." 40 C.F.R. § 1508.7.

The requirement under NEPA to complete a thorough analysis of cumulative effects has been affirmed repeatedly:

> [C]ases firmly establish that a cumulative effects analysis "must be more than perfunctory; it must provide a useful analysis of the cumulative impacts of past, present, and future projects." *Klamath-Siskiyou Wildlands Ctr. v. BLM*, 387 F.3d 989, 994 (9th Cir. 2004) (quoting *Ocean Advocates v. U.S. Army Corps of Eng'rs*, 361 F.3d 1108, 1128 (9th Cir. 2004)). To this end, we have recently noted two critical features of a cumulative effects analysis. First, it must not only describe related projects but also enumerate the environmental effects of those projects. *See Lands Council v. Powell*, 395 F.3d 1019, 1028 (9th Cir. 2005) (holding a cumulative effects analysis violated NEPA because it failed to provide adequate data of the time, place, and scale" and did not explain in detail "how different project plans and harvest methods affects the environment"). Second, it must consider the interaction of multiple activities and cannot focus exclusively on the environmental impacts of an individual project. *See Klamath-Siskiyou*, 387 F.3d at 996 (finding a cumulative effects analysis inadequate when "it only considers the effects of the very project at issue" and does not "take into account the combined effects that can be expected as a result of undertaking" multiple projects).

Oregon Nat. Res. Council Fund v. Brong, 492 F.3d 1120, 1133 (9th Cir. 2007).

Given the repeated acknowledgements in the BLM's watershed analysis regarding the impacts of past BLM logging and road activities on the hydrological and terrestrial health of the project area, it is vital that the BLM analyze and disclose the cumulative impacts of past activities and its future plans.

In an apparent attempt to obfuscate the impacts of its logging agenda, the BLM asserts that the programmatic land management plan fully analyzes project-specific cumulative impacts on the environment. The Ninth Circuit has held that a programmatic Forest Plan cannot substitute for the site-specific cumulative impacts analysis required of project-level environmental analyses under NEPA. *City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1312 (9th Cir. 1990). Government lawyers have repeatedly argued in court that agencies cannot conduct a meaningful analysis of cumulative effects in the context of a Forest Plan. Counsel for the Federal government have contended that: "any particularized discussion in the . . . FEIS concerning the cumulative impacts of future timber harvesting would necessarily be highly speculative at best." *Citizens for Envtl. Quality v. U.S.*, 10th Cir. No. 89-1362 (appeal denied).

The cumulative terrestrial and hydrological impacts from the significant logging throughout the "checkerboard" land use pattern in the planning area must be disclosed and analyzed in an EIS. The level of logging and road construction on both BLM and private industrial timber-lands in the area is extreme, and has significantly altered the species and seral composition across thousands of acres. The impacts of logging practices on wildlife connectivity must be fully disclosed and analyzed prior to rendering a decision to build more logging roads and remove more forest canopy.

We bring to the agency's attention that the BLM recently found that, in the watersheds impacted by Bear Grub, "[e]levated sediment and turbidity levels are occurring as a result of an extensive road network and other disturbances such as OHV use." (Sterling Sweeper EA, 3-44). Yet now the BLM refuses to acknowledge or analyze the very cumulative impacts that it has previously acknowledged.

Additionally, the Ashland Resource Area has previously acknowledged in this planning area that "[p]ast harvest techniques such as clearcutting or overstory removal, which resulted in stands of young, more flammable trees, contributed to the current fire hazard ratings . . . ." (Sterling Sweeper EA, 3-18). Now the BLM suggests removing forest canopies via gap-creation clearcuts and increasing the amount of early-seral flammable trees while denying and ignoring the cumulative impacts of its actions.

EDGE EFFECT AND BLOWDOWN

Edge effect and blowdown associated with, and exacerbated by, logging activities on public and private lands are a significant issue for this project area. BLM planners failed to acknowledge, analyze and account for the impacts of significant canopy removal through logging on edge effect and blowdown.

We agree with the BLM that "[t]hinning and group selection openings may indirectly increase surface wind gusts. Bigelow and North (2012) found evidence of this, observing moderate increases in average wind gusts in thinned stands (up to 1.5 mph) and greater increases in

openings (up to 5.6 mph in openings of 2 acres). Openings greater than 2 acres could increase wind speeds to a greater extent, which could result in problematic surface fire behavior." (EA, 53).

ROAD DENSITIES SHOULD BE REDUCED

The BLM appears determined to build new logging roads regardless of the existing road density, the recommendations of its own specialists in the Watershed Analysis, the content of public comments, and the existence of opportunities for timber harvest that do not require additional logging road construction. There is a need for road density reduction in the planning area which the EA ignores. This is directly opposite of the approach recommended by the BLM's RMP.

The BLM has repeatedly acknowledged the need to reduce, rather than increase, road densities in the planning area. The cumulative impacts of landings, ORV routes, and skid trails, when combined with the significant existing impacts of the extreme road density must be quantified and disclosed in the forthcoming NEPA document.

In the nearby Sterling Silver project, the Ashland Resource Area acknowledged that:

- "Reduced soil porosity [as from road and landing construction] also can reduce water infiltration rates, thereby accelerating surface runoff and soil erosion." (Sterling Silver EA, 3-30).

- "Many of the roads have been poorly maintained and have been degraded as a result of use during the wet season." *Id*.

- "There would be a noticeable increase in soil erosion the first few rain events after [road] construction." *Id* at 3-33.

- "There would be a slight to moderate (15-50%) increase in erosion rates as a result of the combination of harvesting timber and fuel reduction activities which would last approximately 3 to 5 years. A slight cumulative increase in erosion rates would occur as a result of road building." *Id*. at 3-37.

- Implementation of Alternative 3 "would be less impacting to the soil resources, as there would be no road construction…" *Id*. at 3-38.

- "High road densities, greater than 4.0 per square mile are found in all of the drainages within the analysis area." *Id*. at 3-40.

- "[T]here is also a network of OHV trails. These features often utilize old road beds…" *Id*. at 3-41.

- "[E]levated sediment and turbidity levels are occurring as a result of an extensive road network and other disturbances such as OHV use." *Id*. at 3-44.

Hence, the BLM has previously recognized that: (1) road construction contributes to peak flows; (2) the agency has failed to adequately maintain its existing network of logging roads;

(3) road construction will increase soil erosion and compaction; (4) avoiding road construction would better protect soil resources; (5) the existing road density on BLM lands is high; and (6) the agency has been ineffective in preventing ORVs from exacerbating the impacts of the BLM road system. Yet the agency nevertheless proposes new road construction in Bear Grub while failing to consider or develop reasonable action alternatives (as suggested in the BLM's Watershed Analysis) that would reduce road density. Such an approach is arbitrary and capricious.

The BLM is aware that ORV use is occurring in the project area and that ORV use is adversely impacting terrestrial and aquatic forest values. But the BLM has not analyzed the extent to which its proposed actions will facilitate and enable such ORV impacts. Either the BLM must quantify the effects of its actions, or it must complete an EIS. The agency cannot conclude that logging activities may contribute to an already significant problem that cannot be quantified but shrug off the consequences as immaterial. The BLM must consider the cumulative impacts of new road construction in the Bear Grub area with existing road degradation and ORV-use issues.

Similarly, the BLM must disclose the location, number and cumulative impacts of new log landings in conjunction with the significant impacts occurring from the excessive transportation system. How many acres will be utilized as landings, where will these landings be located, and what are their synergistic impacts with the network of logging roads?

Attached to our scoping comments was a peer-reviewed article by Colombaroli and Gavin (2010) which indicated that "over millennia fire was more episodic than revealed by nearby shorter tree-ring records and that recent severe fires have precedents during earlier drought episodes but also that sediment loads resulting from logging and road building have no precedent in earlier fire events." Please note that this conclusion directly contradicts the BLM's boilerplate analysis of the no-action alternative in the Bear Grub EA.

The Bear Grub EA propose activities that will cumulatively, synergistically, and directly contribute to aquatic degradation of streams and watersheds that are 303(d)-listed under the Clean Water Act.

Please consider the following statement by your colleagues in the Forest Service in which they conclude that:

> Temporary roads are also expected to have an irretrievable reduction in soil productivity since they are bladed (soil is mixed and displaced) and compacted. Even once rehabilitated, the soil profile is modified to a degree that may take many years to return to the productive state of the undisturbed forest soils adjacent to it.

(USDA Forest Service, 2010 Rustler EA, III-6).

The USFS National Forest Roadless Area Conservation FEIS says that temporary roads are not designed and constructed to the same standard as classified roads and therefore result in a "higher risk of environmental impacts." USDA Forest Service, Roadless Area Conservation Final Environmental Impact Statement. November, 2000. Page 3-30.

How does the BLM square the "irretrievable reduction in soil productivity" associated with road construction with its extreme interpretation of the O&C Act in which every acre must be managed solely for timber production?

The referenced Forest Service Roadless FEIS also says:

> Temporary roads present most of the same risks posed by permanent roads, although some may be of shorter duration. Many of these roads are designed to lower standards than permanent roads, are typically not maintained to the same standards, and are associated with additional ground disturbance during their removal. Also, use of temporary roads in a watershed to support timber harvest or other activities often involves construction of multiple roads over time, providing a more continuous disturbance to the watershed than a single, well-designed, maintained, and use-regulated road. While temporary roads may be used temporarily, for periods ranging up to 10 years before decommissioning, their short- and long-term effects on aquatic species and habitats can be extensive.

Brown, S., and R. Archueleta. Roadless Area Conservation FEIS: Specialist Report for Terrestrial and Aquatic Habitats and Species. USDA Forest Service.

Please note that BLM specialists have come to similar conclusions. A BLM soils scientist spoke to the restorative value of decommissioning "temporary" roads. He says: "[w]hat I have seen so far have been nothing more than modified rock rippers and little lateral fracture of the soil occurs and the extent of de-compacting is very limited." Coos Bay BLM, Big Creek Analysis file, section F, Soils Report. Page 4.

Yet the Bear Grub EA contains no acknowledgment, analysis or data concerning the location, soil types, slope, or impacts associated with its road construction agenda.

The BLM cannot assume that temporary and new roads will have little environmental effect because they are "temporary." The BLM has offered no scientific evidence to support this assumption. In fact, scientific research has shown exactly the opposite. Luce 1997.

Research shows there is nothing temporary about temporary roads, and that ripping out a road is not the equivalent to never building a road to begin with:

> The saturated hydraulic conductivity of a ripped road following three rainfall events was significantly greater than that of the road surface before ripping . . . [M]ost saturated hydraulic conductivities after the third rainfall event on a ripped road were in the range of 22 to 35 mm/hr for the belt series and 7 to 25 mm/hr for the granitics. These conductivities are modest compared to the saturated hydraulic conductivity of a lightly disturbed forest soil of 60 to 80 mm/hr.

Id. at 268.

Your colleagues in the Forest Service have reported that forest roads have negative effects on water quality, fires, wildlife habitat, spread of noxious weeds, and local economies. USDA Forest Service. 2001. Forest Roads: A Synthesis of Scientific Information. General Technical Report PNW-GTR-509. Page 4.

According to the Forest Service:

- The number of large fires are dramatically higher in areas that are already roaded than in inventoried roadless areas. USDA Forest Service, Roadless Area Conservation Final Environmental Impact Statement. November, 2000. Page 3-115.
- Human-caused wildland fire is nearly five times more likely to occur on essentially roaded lands than on essentially unroaded lands. *Id*. at 3-116.
- According to independent scientists: based on an objective study over 15 years, large wildfires are more likely to occur and to burn to greater extents in areas outside of roadless areas. Eastman et al. 2002.
- Road construction and timber harvest can result in measurable reductions in water quality. USDA Forest Service, Roadless Area Conservation Final Environmental Impact Statement. November, 2000. Page 3-49.

According to independent scientists, the spread of both native and exotic pests and pathogens in many forest systems can be linked to the ready travel corridors provided by extensive road networks. Please note that your colleagues in the Grants Pass Resource Area concluded that in the Deer North EA (page 102) that "roads are one of the main vectors for noxious weed spread and introduction."

Trees at forest edges created by roads had 2.4 times more gypsy moth egg masses than trees in the forest interior. Bellinger et al. 1989. Forest edges have been found to be source populations for tent caterpillars. Roland 1993.

Attached to our scoping comments was a peer-reviewed article by Colombaroli and Gavin (2010) that indicates the past 50 years of logging and road construction in the Siskiyou Mountains have had much greater impacts to sediment loading to watersheds than have wildfire events. These findings are directly relevant to the proposal to construct more logging roads in the Bear Grub project area. Yet the EA ignores them.

Also attached to our scoping comments was a peer-reviewed article by Trombulak and Frissell (2000) detailing some of the negative impacts of road construction and use on both terrestrial and aquatic ecosystems. The abstract for the article reads as follows:

> Roads are a widespread and increasing feature of most landscapes. We reviewed the scientific literature on the ecological effects of roads and found support for the general conclusion that they are associated with negative effects on biotic integrity in both terrestrial and aquatic ecosystems. Roads of all kinds have seven general effects: mortality from road construction, mortality from collision with vehicles, modification of animal behavior, alteration of the physical environment, alternative of the chemical environment, spread of exotics, and increased use of areas by humans. Road construction kills sessile and slow-moving organisms, injures organisms adjacent to a road, and alters physical conditions beneath a road. Vehicle collisions affect the demography of many species, both vertebrates and invertebrates; mitigation measures to reduce roadkill have been only partly successful. Roads alter animal behavior by causing changes in home ranges, movement, reproductive success, escape response, and physiological state. Roads change soil density, temperature, soil water content, light levels, dust, surface waters, patterns of runoff, and sedimentation, as well as adding heavy metals (especially lead), salts, organic molecules, ozone, and nutrients to roadside

> environments. Roads promote the dispersal of exotic species by altering habitats, stressing native species, and providing movement corridors. Roads also promote increased hunting, fishing, passive harassment of animals, and landscape modifications. Not all species and ecosystems are equally affected by roads, but overall the presence of roads is highly correlated with changes in species composition, population sizes, and hydrologic and geomorphic processes that shape aquatic and riparian systems. More experimental research is needed to complement post-hoc correlative studies. Our review underscores the importance to conservation of avoiding construction of new roads in roadless or sparsely roaded areas and of removal or restoration of existing roads to benefit both terrestrial and aquatic biota.

Trombulak and Frissell 2000.

The cumulative impacts of "temporary" road construction, significant unregulated ORV use, landing construction and widespread tractor yarding on this highly impacted watershed must be fully disclosed in an EIS due to the ongoing significant impacts to hydrology and soils acknowledged in the WQRP and the WA. In addition to disclosing these cumulative impacts, we strongly urge the BLM to avoid the negative impacts associated with these practices and begin restoring the damage caused by the agency's past actions. The BLM may not simply ignore the significant and cumulative impacts of its road system and road construction proposal.

NEOTROPICAL MIGRATORY BIRDS

The regional decline of migratory birds is a significant issue for the Bear Grub timber sale. Numerous studies have reported local and regional negative trends in breeding and migratory bird populations throughout North America.

The Bear Grub EA failed to analyze and disclose the potential impacts of conifer thinning operations and brush removal on neotropical bird population trends. Indeed, the Bear Grub EA contains no data, information, analysis, or documentation of any kind on this subject.

The cumulative effects analysis on migratory birds should not rely exclusively on the Resource Management Plan, Riparian Reserves, and LSRs to provide for species viability into the future because it is the collective and cumulative impact of individual habitat removal actions that is pushing these species towards extinction.

Simply concluding that the scale of the project is small, relative to the size of the nation, hence migratory bird populations will not be affected, will not suffice.

As per DOI BLM instruction memo 2008-50 the BLM must "include migratory bird species of concern in the affect environment [analysis] when any of these species may be affected by the proposed actions . . . ." Further, the agency must "emphasize avoidance or minimizing negative impacts and restoring and enhancing habitat quality . . . ."

In our scoping comments we suggested a reasonable action alternative in which Bear Grub implemented seasonal operational restrictions to avoid project impacts while land birds are nesting in the project area. An example of such restrictions may be found in the Highway 89 Safety Enhancement and Forest Ecosystem Restoration Project on the Shasta-Trinity National

Forest in which project activities that could impact cavity-nesting and ground-and-shrub-nesting migratory bird species are prohibited during the primary nesting period of April 15 to July 31.

The BLM refused to consider or analyze this reasonable action alternative. Instead the BLM included a PDF (at A-24) in which it "recommends" to itself to avoid spring burning in favor of fall or winter burning so as to not burn during nesting season. There is no indication that the BLM will follow its recommendation to itself. The BLM should inform the public of the consequences of implementing or rejecting its recommendation to itself. However, no such data, analysis, or information is presented in the EA.

Pursuant to the Migratory Bird Treaty Act (MBTA), it is unlawful "at any time, by any means or in any manner to . . . take [or] kill . . . any migratory birds, [and] any part, nest, or eggs of any such bird." 16 U.S.C. § 703(a). This prohibition applies to federal agencies and their employees and contractors who may not intend to kill migratory birds but nonetheless take actions that result in the death of protected birds or their nests. *Humane Soc'y of the United States v. Glickman*, 217 F.3d 882 (D.C. Cir. 2000) (holding that federal agencies are required to obtain a take permit from FWS prior to implementing any project that will result in take of migratory birds); *Robertson v. Seattle Audubon Soc'y*, 503 U.S. 429, 437–38 (1992) (finding that federal agencies have obligations under the MBTA); *Center for Biological Diversity v. Pirie,* 191 F.Supp.2d 161 (D.D.C. 2002) (allowing injunctive relief against federal agencies for violations of the MBTA).

The prohibition on "take" of migratory birds includes destruction of nests during breeding season. Specifically, "nest destruction that results in the unpermitted take of migratory birds or their eggs, is illegal and fully prosecutable under the MBTA." U.S. Fish and Wildlife Service, Migratory Bird Permit Memorandum: Nest Destruction (April 15, 2003).

Under the MBTA, "any person, association, partnership, or corporation" who violates the MBTA or regulations thereunder are subject to criminal and civil penalties. 16 U.S.C. §707. Violations of the MBTA are prosecuted as a misdemeanor, and upon conviction thereof, are subject to fines of up to $15,000 or imprisonment of up to six months, or both. *Id*.

The Bear Grub EA fails to analyze or disclose the effects of the project and alternatives on migratory birds protected under the MBTA. The MBTA prohibits the destruction of nests and eggs of migratory birds. The BLM should have evaluated the impacts of project activities on migratory bird nests, disclosed the breeding season for each migratory bird species found in the project area, and implemented measures to avoid destruction of nests.

Please note that page 115 of the 2016 ROD/RMP specifically directs the BLM to "conserve or create habitat for species addressed by the Migratory Bird Treaty Act . . . ." Yet the Bear Grub EA ignores portions of the RMP that conflict with the BLM's logging agenda.

BUREAU SENSITIVE SPECIES

The Bear Grub timber sale EA did not analyze or disclose the impacts of the timer sale on Bureau Sensitive species in the project area "in detail." We believe there is considerable risk

that the BLM will not follow the 2016 ROD/RMP direction to "implement conservation measures that reduce or eliminate threats to Bureau Sensitive species . . . ." (RMP, 115).

The direction to "include altering the type, timing, location, and intensity of management actions" for the benefit of Bureau Sensitive species, (RMP, 115), appears incompatible with the BLM's intent to focus on timber production targets regardless of impacts to wildlife habitat in the Bear Grub planning area.

Please implement the direction to "[u]tilize integrated vegetation management in designing and implementing treatments . . . for any of the following reasons: . . . . Restore and maintain habitat for Bureau Special Status species." (RMP, 72). Please implement the direction to "[p]rovide for the conservation of Bureau Special Status plant and fungi species." (RMP, 106).

The Bear Grub timber sale analysis is largely silent concerning BLM management goals regarding Pacific fisher or any other Bureau Sensitive species. We are concerned that proposed regeneration and large tree logging may contribute to the need to list the Pacific fisher under the ESA.

The BLM's Special Status Species Management handbook instructs:

> District Managers and Field Managers are responsible for implementing the BLM special status species policies and program within their area of jurisdiction by: . . . Monitoring populations of Bureau special status species to determine whether management objectives are being met. Records of monitoring activities are to be maintained and used to evaluate progress relative to such objectives. Monitoring shall be conducted consistent with the principles of adaptive management as defined in Department of the Interior policy, as appropriate.

(BLM Manual 6840, .04E).

At A-10 in the EA the BLM acknowledges that presence of numerous BSS plants and Special Status Plants (SSPs) in the project area, including within logging units outside of "skips." Yet the EA and appendices contain no data or analysis regarding these species. The BLM should not refer all analysis to the RMP and rely on generic PDFs in place of proper NEPA analysis and disclosure.

The BLM's failure to look for and provide data and analysis for BSS species contradicts agency policy described in the Special Status Species Management handbook:

> Actions authorized by the BLM shall further the conservation and/or recovery of federally listed species and conservation of Bureau sensitive species. Note that "conservation" has a different meaning depending on whether it is referring to ESA listed species or Bureau sensitive species. See glossary. Bureau sensitive species will be managed consistent with species and habitat management objectives in land use and implementation plans to promote their conservation and to minimize the likelihood and need for listing under the ESA.

(BLM Manual 6840, .06).

GROUP SELECTION, EARLY SERAL STANDS, AND FIRE HAZARD

"While the severity varied throughout the fire area, young timber plantations carried the fire while older stands tended to be more resistant. This is mostly due to young timber plantations having a high density of ground fuels." BLM Medford District Office. Sept. 5, 2013. Douglas Complex Fire Burned Area Emergency Rehabilitation Plan.

Our organizations are extremely concerned that the proposed logging followed by the establishment of early seral conditions may increase fire hazard in the Bear Grub planning area. The practice of converting mature forests into early seral stands significantly increases fire hazard in the mid- to long-term. Young stands are more susceptible to intense fire behavior and severe fire effects than unlogged mature forests, including burned forests. DellaSala et al. 1995; Odion et al. 2004a. The increased susceptibility of second-growth trees to severe fire is due to:

- Structural characteristics, such as fine and interlocking branch structures situated low to the ground, which facilitate high heat energy output by fire and rapid fire spread. Sapsis and Brandow 1997.

- Warm, windy and dry microclimates compared to what would exist in an unlogged burned forest that possessed more structural diversity, ground shading and barriers to lateral wind movement. Countryman 1955; Van Wagtendonk 1996.

- Accumulations of large volumes of fine logging slash on the ground surface. Weatherspoon and Skinner 1995.

In addition to these direct and indirect effects on the fire environment, the cumulative effects of early seral stand establishment include the creation of more highly flammable even-aged stands on a landscape already vulnerable to uncharacteristically large and severe fires. The number and distribution of even-age tree plantations resulting from industrial timber management has altered fire behavior and effects at both stand and landscape scales. Frost and Sweeny 2000; Hann et al. 1997; Huff et al. 1995. Perry (1995) suggests that the existence of sufficient young tree patches on a forest landscape creates the potential for "a self-reinforcing cycle of catastrophic fires." Most plantations occur near roads, DellaSala and Frost 2001, which presents an added risk of human-caused ignitions during hot and dry conditions, USDA 2000.

Two fires in 2002 on the Umpqua National Forest were evaluated for their effect on the forest. Excerpts from the March 2003 Wildfire Effects Evaluation Project by the Umpqua National Forest make clear the impact of creating more tree plantations:

- "Plantations had a tendency to increase the rate of fire spread and increased the overall area of stand-replacement fire effects by spreading to neighboring stands." Page 4.
- "Fire burned most plantations with high intensity and spread rapidly through the canopy of these young stands." Page 20.
- "Plantation mortality is disproportionately high compared to the total area that plantations occupied within the fire perimeter." Page 26-27.
- "Crown fire spreads readily through these young stands: rates of fire spread can be high, and significant areas or mortality can occur in and adjacent to these stands." Page 32.

- Finally, the report concludes that the fire behavior in forest that had not been converted to tree farms was normal. "The pattern of mortality in the unmanaged forest resembles historic stand-replacement patch size and shape." Page 64.

We agree with the finding in the Medford BLM Trail Creek Timber Sale EA that:

> A forest's resiliency to fire can be increased by managing surface fuels to limit the flame length, removing ladder fuels to keep flames from burning into tree crowns…and retaining larger diameter trees that are more fire resistant.

(Trail Creek EA, 98).

The BLM's proposal to remove mature forest canopy may increase fire hazard necessitating completion of an EIS. Please note that the Watershed Analysis indicates that early and mid-seral stands currently dominate the watersheds in the planning area. Furthering this trend has significant consequences for wildlife and fire behavior.

Please note that management direction contained on page 62 of the 2016 RMP specifically requires the BLM to conduct logging activities in the Harvest Land Base (HLB) "to enhance timber values and to reduce fire risks and insects and disease outbreaks." We are very concerned that the proposed Bear Grub logging will increase, rather than decrease, fire risk in the HLB in both the short and long term.

At pages 23-24 of the EA the BLM indicates that it intends to log some late seral stands in the planning area. Scientists, however, agree that we need more, rather than fewer, late seral forest stands in these watersheds. Removing trees >30" DBH decreases, rather than increases, fire resiliency.

The removal of trees of "all age and size classes," documented on page 27 of the EA, would have the BLM continue to remove large-diameter fire-resilient trees and replace them with young trees that increase fire hazard. This does not meet the RMP direction to reduce fire risks.

LATE SUCCESSIONAL RESERVES

The BLM's proposal to manage LSRs primarily for timber production runs afoul of the RMP and is a significant action necessitating completion of an EIS for the Bear Grub timber sale. The proposed project would inhibit the maintenance or establishment of late-successional forest characteristics in the LSR land use allocation.

The BLM withdrawal from the Northwest Forest Plan and establishment of the 2016 RMP included the following "purposes":

- Provide a sustained yield of timber.
- Contribute to the conservation and recovery of threatened and endangered species, including—
    - Maintaining a network of large blocks of forest to be managed for late-successional forests; and
    - Maintaining older and more structurally-complex multi-layered conifer forests.
- Provide clean water in watersheds.

- Restore fire-adapted ecosystems.
- Provide recreation opportunities.

(RMP, 20).

To implement these purposes, the BLM's 2016 RMP is supposed to:

- [I]mplement timber harvest consistent with the concepts of Ecological Forestry, which incorporate principles of natural forest development, including the role of natural disturbances, in the initiation, development, and maintenance of stands and landscape mosaics. (RMP, 23).
- [T]hrough the extensive reserve network and application of Ecological Forestry concepts, will provide flexibility in addressing the uncertainties associated with climate change. *Id*.
- [C]ontribute to restoring fire-adapted ecosystems in the dry forest landscape of southern Oregon by increasing fire resiliency. The Proposed RMP will increase stand-level fire resistance and decrease stand-level fire hazard from current conditions. The Proposed RMP will result in a greater increase in the acreage of High and Mixed fire resistance and a greater decrease in the acreage of High fire hazard. (RMP, 26).
- [A]pply an uneven-aged forest management approach in the dry forest and will provide flexibility in stand treatments in the Late-Successional Reserve and Riparian Reserve in dry forests to address fire resiliency, consistent with the concepts of Ecological Forestry, as advised by the U.S. Fish and Wildlife Service in the owl recovery plan. Through these forest management approaches, the Proposed RMP recognizes the unique ecological conditions and management challenges of the dry forest portions of the decision area. *Id*.

Yet the BLM fails to implement these tactics to meet the RMP objectives in the Bear Grub project. Basal area targets for LUAs in the HLB and the LSR have the same prescription in the project despite the different objectives and management directions laid out for these distinct LUAs in the RMP. (EA, Table 2-1). BLM falsely claims, "The harvest actions proposed in Bear Grub are consistent with the 2016 ROD/RMP, such as Selection Harvest and Riparian Reserve Thinning, depending on the land use allocation involved." (EA, 24). All of the post-harvest basal areas among all LUAs have the same target range. Functionally, this treats all lands as an opportunity for timber harvest and fails to incorporate the objectives or direction that distinguish the purposes of different land use allocations.

For instance the BLM refuses to analyze climate change in detail, but admits "[w]hile analysis of the project-specific and site-specific conditions could give greater specificity to the analysis in the 2016 PRMP/FEIS, there is no potential for reasonably foreseeable significant effects of the alternatives beyond those disclosed in the 2016 PRMP/FEIS . . . . The information available on project-specific and site-specific conditions, while more specific, is not fundamentally different from the information used in the 2016 PRMP/FEIS analysis of effects on carbon storage and greenhouse gas emissions, and thus cannot reveal any fundamentally different effects than that broader analysis." (EA A-13). This lack of analysis does not provide flexibility in addressing the uncertainties associated with climate change.

Further, advances in the science of fire ecology have demonstrated that most older forests are fire-adapted and are renewed, rather than destroyed, by fire. Warm, dry forest ecosystems

depend on fire to recycle dead downed needles and limbs into soil nutrients, and allow understory native plants to grow following fire. Oregon's old-growth forests are powerful carbon sinks that are the most resilient to wildfire, they can help stabilize the climate through the uptake and storage of carbon for long periods of time. These forests also provide clean, cold water, support healthy soil, and provide essential habitat for wildlife. Logging these forest designations in the LSR to the same basal area targets for the HLB fails to incorporate ecological forestry or increase fire resiliency as directed by the RMP.

In creating the LSR land use allocation, land management direction tells BLM to: "Manage for large blocks of northern spotted owl nesting-roosting habitat that support clusters of reproducing spotted owls, are distributed across the variety of ecological conditions, and are spaced to facilitate the movement and survival of spotted owls dispersing between and through the blocks." (RMP, 70).

BLM is incorrect in its limited interpretation that it cannot implement RA32 and RA10 of the spotted owl recovery plan as directed by the RMP because the creation of the LSR network serves as their contribution to those recovery actions. The RMP itself allows that:

> The BLM may implement additional site-specific project-level mitigation measures including additional BMPs that are consistent with RMP management direction as determined necessary through site-specific analysis at the time of the project. Such additional site-specific project-level mitigation measures are not specifically listed in the approved RMP.

(RMP, 29)

As stated on pages 29-30 of the EA, the BLM may log LSR stands that have 64% canopy (one of the measures of NRF habitat) and intentionally log that to 36% canopy, precluding its use as even dispersal habitat. This significant canopy removal would result in forest stands that could not recover to provide dispersal habitat (40% canopy) for over 50 years. Additionally, the BLM is contemplating clearcutting (group selection logging) on up to 25% of treated LSR stands.

All of the action alternatives would preclude recovery of LSR stands, which currently provide NSO foraging habitat, for decades. This result violates the RMP. Further, as acknowledged on page 32 of the EA, the widespread LSR logging would not increase the QMD more than the No Action Alternative. In other words, the BLM is proposing LSR logging to produce timber volume rather than to produce larger trees or forest canopy that can be utilized by late-successional associated species.

ORV USE IS A SIGNIFICANT ISSUE

Ongoing ORV use in the project area is having a continuing unanalyzed significant impact on the human environment and the potential for the timber sale to exacerbate these impacts must be analyzed and disclosed in an EIS.

ORV and dirt bike trails proliferate from the BLM road system into the surrounding unroaded forest. Further, BLM closure mechanisms such as gates and berms in the project area have proved largely ineffective at reducing or halting inappropriate and damaging ORV use. Hence

new permanent or temporary road construction will foreseeably lead to more off-road ORV use emanating from the new roads.

Furthermore, ORV and dirt bike use will likely extend onto ground-based and skyline yarding corridors. Such inappropriate use has occurred in the past, is occurring in the present, and hence is foreseeable in the future.

As previously acknowledged by the BLM in this planning area, "[T]here is also a network of OHV trails. These features often utilize old road beds . . . ." (Sterling Silver EA, 3-41).

Finally, the cumulative impacts of the extensive OHV trail network on spotted owls, soil resources and hydrological health is largely ignored. The BLM fails to disclose or quantify the location or number of OHV trails or the soil types, slope, aspect or riparian features impacted by OHV use in the analysis area.

EROSION, ROAD-RELATED SEDIMENT AND TURBIDITY

The EA action alternatives fail to identify specific BMPs/PDFs and mapped locations for BMP/PDF implementation for each proposed new road segment and each haul route road segment to decrease connectivity of roads with the stream channel system. This requires hydrologically disconnecting the unpaved log haul routes from the stream system with cross drain culverts, outsloping, berms, sediment traps and critical dips. Failure to provide site specific BMPs means sediment minimization is not assured and take of coho salmon may occur.

The EA merely lists BMPs. The BLM fails to discuss the ineffectiveness of proposed BMPs and resulting fine sediment transport to streams. Edwards et al. 2016. For the majority of these BMPs the EA fails to identify specific or even general road locations where they would be implemented or which BMPs would be implemented. For example, cross drains are important for reducing connectivity of roads within the stream system but the EA does not specify a single cross drain location or indicate how many new cross drains would be installed to reduce connectivity of new haul roads and existing haul roads. The EA only addresses sediment abatement with BMPs in a programmatic fashion. Effectiveness of this approach is highly uncertain since there are no required site-specific BMP identified (e.g., additional cross drains). Since the EA fails to identify structural BMPs needed to disconnect the road system from the stream system they cannot be incorporated into project contracts or road upgrades. In other words, contract BMPs will only address drainage and protection of the road surface and not reduce existing connectivity with streams.

The action alternatives fail to adequately implement the following RMP management direction consistent with the RMP BA and NMFS 2016 (RMP) Biological Opinion (BiOp):

> Implement road improvements, storm proofing, maintenance, or decommissioning to reduce or eliminate chronic sediment inputs to stream channels and waterbodies. This could include maintaining vegetated ditch lines, improving road surfaces, and installing cross drains at appropriate spacing.

(RMP, 93).

> Decommission roads that are no longer needed for resource management and are at risk of failure or are contributing sediment to streams, consistent with valid existing rights.

(RMP, 93).

> Fully decommission or obliterate (permanent closure) roads with no future resource management need. Decommission (long-term closure) roads not currently needed for resource management but that will be used and maintained again in the future. Apply road closure BMPs as needed (Appendix C). Close roads only with the approval of affected permittees consistent with valid existing rights.

(RMP, 96).

Implementation of the above management direction for roads within the planning area would identify at least some road miles needing treatment. The alternatives are inadequate to implement management direction and the BiOp because no roads other than newly constructed temporary roads and roads being replaced with longer permanent roads would be decommissioned or obliterated.

It is clear from the 2016 BiOp that NMFS assumed that management direction and BMPs would be implemented to reduce sediment and vehicle pollutants from roads. The following is excerpted from the 2016 BiOP pages 199-200.

The following are a subset of the BMPs that could be implemented for road work:

- Locate roads and landings on stable locations, ridge tops, stable benches, or flats, and gentle-moderate slopes.
- Locate roads and landings away from wetlands, Riparian Reserve, floodplains, and waters of the State, unless there is no practicable alternative. Avoid locating landings in areas that contribute runoff to channels.
- Disconnect road runoff to the stream channel by outsloping the road approach. If outsloping is not possible, use runoff control, erosion control and sediment containment measures. These may include using additional cross drain culverts, ditch lining, and catchment basins. Prevent or reduce ditch flow conveyance to the stream through cross drain placement above the stream crossing.
- Effectively drain the road surface by using crowning, insloping or outsloping, grade reversals (rolling dips), and waterbars or a combination of these methods. Avoid concentrated discharge onto fill slopes unless the fill slopes are stable and erosion proofed.
- Locate cross drains to prevent or minimize runoff and sediment conveyance to waters of the State. Implement sediment reduction techniques such as settling basins, brushfilters, sediment fences, and check dams to prevent or minimize sediment conveyance. Locate cross drains to route ditch flow onto vegetated and undisturbed slopes.
- Space cross drain culverts at intervals sufficient to prevent water volume concentration and accelerated ditch erosion. At a minimum, space cross drains at

intervals referred to in the BLM Road Design Handbook 9113-1 (USDI BLM 2011), Illustration 11 –'Spacing for Drainage Lateral.' Increase cross drain frequency through erodible soils, steep grades, and unstable areas.

- Install cross ditches or waterbars upslope from stream crossing to direct runoff and potential sediment to the hillslope rather than deliver it to the stream.
- Luce and Black (1999) found that incorporating design features such as cross-drains and ditch relief culverts into roads reduced the hydrological connection of these structures. Forest vegetation buffers flow and prevents sediment from reaching streams. Copstead et al. 1998.

(2016 BiOP, 199-200).

We conclude that the Bear Grub project fails to implement actions to substantially reduce sediment from the use of existing haul roads and log haul on proposed new roads.

We have learned that the 2019 Medford District aquatic restoration projects will not fulfill the 2016 BiOp's requirements for reducing road-related sediment runoff into coho streams because no timber haul roads within coho watersheds will be decommissioned or storm-proofed. *See* letter dated June 6, 2019 from E. Burghard (BLM) to R. Nawa (KS Wild). The Bear Grub project failed to include BMPs to permanently re-direct road-related sediment to vegetated slopes rather than into stream channels (i.e, permanently disconnect roads from streams with road, BMP R26, at all or some of the stream crossings). While included temporary BMPs are necessary to comply with the 2018 BiOp (e.g., hay bales, sediment detention digouts), permanent or long-lasting modification to road drainage are needed to comply with the 2016 BiOp since "storm-proofing" measures are not being implemented under other programs (e.g., Aquatic Restoration Programmatic EA).

CONCLUSION

Removing and reducing mature forest canopy is a shortsighted and counterproductive way of attempting to meet arbitrary BLM timber targets. Please work with interested stakeholders to develop projects that increase, rather than decrease, forest and watershed health. In both the short- and long-term substantive partnerships that acknowledge all of the interests in America's public lands are more effective than are proposals that primarily serve a narrow set of timber interests.

Regards,

/s/ George Sexton

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