03/30/18

In accordance with 36 CFR §218, Bark and the American Bird Conservancy hereby object to the Environmental Assessment ("EA") and draft Decision Notice for the Crystal Clear Timber Sale.

Responsible Official: Jim DeMaagd, Acting Forest Supervisor, Mt. Hood National Forest

Objection Period End Date: March 30, 2018

Location: White River Watershed, Barlow Ranger District, Mt. Hood National Forest

Objector's Interests & Participation:

Lead objector Bark is a non-profit organization based in Portland, Oregon and has worked to protect the MHNF since 1999. Bark's mission is to bring about a transformation of public lands on and around Mt. Hood National Forest (MHNF) into a place where natural processes prevail, where wildlife thrives and where local communities have a social, cultural, and economic investment in its restoration and preservation. Bark has over 25,000 supporters[1] who use the public land lands surrounding Mt. Hood, including the areas proposed for logging in this project, for a wide range of uses including, but not limited to: hiking, skiing, nature study, non-timber forest product collection, spiritual renewal, and other recreation. More than 200 Bark members and volunteers visited the Crystal Clear Timber Sale (CCTS) area during a two-week long field research campout and many more have visited the site during hikes and groundtruthing events. The value of the activities engaged in by Bark members and staff will be damaged by the implementation of this project.

[1] Supporters in this case is defined as significant donors and petition-signees which Bark has identified as being active users of Mount Hood National Forest.

In addition, Bark staff regularly attend the Wasco Collaborative Group, which received a few presentations about this timber sale. However, the Forest Service (FS) decided not to plan this project with the input of the Collaborative Group.

American Bird Conservancy (ABC) is dedicated to conserving birds and their habitats throughout the Americas and has a particular interest in the recovery of the threatened northern spotted owl (NSO). ABC is concerned about the amount of proposed logging in designated critical habitat for the NSO and urge that the project be revised to ensure listed species are not harmed, and that the restoration of the late-successional ecosystem under the Northwest Forest Plan which the owl depends upon for recovery is not delayed due to logging of mature forests intended to become old-growth. Both Bark and ABC commented on the draft Environmental Assessment (DEA) for the CCTS.

As required by 36 C.F.R. § 218.8(d), the lead objector's name, address, telephone number and email:

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VIOLATIONS OF LAW, REGULATION AND POLICY

1) FAILURE TO MEET PURPOSE AND NEED

The stated purpose & need of the CCTS is: "*to provide a sustainable supply of forest products where there is an opportunity to restore resiliency to forested areas and reduce the risk of uncharacteristic wildfire behavior."* There are several ways in which the project as planned does not meet this purpose & need.

a) Much of the project area already is resilient and not in danger of "uncharacteristic wildfire".

In scoping comments, and again in comments on the draft EA, Bark provided site specific information demonstrating that the proposed project is at odds with its stated purpose and need, including that much of the project area is mature undisturbed forest, which is widely recognized as the most resilient type of ecosystem in MHNF, thus not in need of logging to improve resilience.

While stating many times that the purpose of the project is to "decrease the chances of uncharacteristic wildfire," the Final EA (FEA) never establishes what constitutes *characteristic* fire across the many different types of forest. In FEA comments, Bark noted that 6,296 acres of the project is in moist mixed conifer where fire is not a regular

presence, mixed-severity & stand-replacing fires are normal[2], and the forest is not outside of its natural fire regime. Without clearly delineating of *characteristic fire* across the different areas of the project, the FS cannot justify the purpose of decreasing the chance of uncharacteristic fire. This incongruency remains unaddressed, likely because the facts seemingly negate much of the purpose and need of the project.

b) Timber volume is a driving factor

In scoping and DEA comments, Bark highlighted public statements from the decision-maker that were at odds with the Purpose & Need in the NEPA documents. Now that Bark has obtained a copy of the "Timber Pipeline Fund" letter from the Regional Office directing the MHNF to produce 100,000 CCF from the project, we understand the basis for Ranger Sam's earlier statements to the Wasco collaborative group that this project was being planned to provide "shelf stock" to meet MHNF's timber quota.[3] **This expectation of volume was omitted from the NEPA analysis.** The Final EA addressed the discrepancy between purpose & project somewhat by acknowledging that timber production is a central purpose of this project, but not to the extent that it remedies Bark's claim that the project fails to meet its stated purpose and need, and that the failure to disclose does not uphold public process.

c) The CCTS is not in a priority location for community wildfire protection

The Draft Decision asserts that the project "Promote[s] safe fire-suppression activities – This is of particular importance to me within the Juniper Flats WUI, which our local communities have identified as an area of concern in the Wasco County Community Wildfire Protection Plan (CWPP)." *DDN at 4.*

However, as raised in DEA comments, **this is not an area prioritized by the local Wasco County Community Wildfire Protection Plan** (WCCWPP). The project area is located in Zone 3 of the WCCWPP, and recommendations for Zone 3 focus exclusively around protecting settled communities, of which there are none in the proposed project area. *See WCCWPP at 69-71.* Bark raised this issue in comments on the draft EA, to which the FS responded "comment noted". However, the draft Decision continues to misrepresent the priorities of the WCCWPP.

[2] 84% of the project area is in "mixed severity" or "stand replacing" natural fire regimes, with only 15% in a "low severity" fire regime.
[3] See Bark DEA Comments at 2-3.

The project area is also not a priority under the Strategic Fuel Placement Plan, as it is not in a priority area of the Community Wildfire Plan, and it is mostly within its natural vegetation condition class.[4] The majority of the CCTS project area is within Fire Regime Condition Class 1 – meaning that it is within its natural (historical) range of variability of vegetation characteristics including fuel composition, fire frequency, severity and pattern, and other associated disturbances. According to the EA, 95% of the "moist fuel treatment" and 97% of the "moist forest health treatment" is in Condition Class 1. *FEA at 68.* 51% of the "dry forest health" treatments and 28% of the "dry fuel treatment" is in is in Condition Class 1. *FEA at 68.*

Despite the inconsistency between fact and assumption, as raised in Bark's DEA comments, the FS continues to claim that the project "would place a greater emphasis in areas that were identified as needed for strategic fuel treatment in the Mt. Hood Strategic Fuel Treatment Placement Plan." *DEA at 19*. This is simply untrue. Limiting this project to logging only in areas that are prioritized by the WCCWPP, and outside of their natural vegetation condition class, would better align with the purpose & need.

d) The CCTS project may actually increase fire risk and future uncharacteristic fires

Tables 14 & 15 show a huge spurt of regrowth after the proposed action, leading to as many as 1000 new, small, trees in the first 50 years after the action, while the no-action alternative shows the slow & steady mortality of already established trees. *FEA at 64-65.* Bark requested an explanation of how this large ingrowth of young trees helps meet the purported purpose and need of "fuels reduction", but this was not addressed in the FEA Additionally, if the primary purpose and need of the CCTS project is to reduce wildfire risk, the district should have incorporated the scientific research Bark provided in DEA comments, which found that fire danger is higher in areas with existing roads and increases dramatically with construction of new roads. *Bark DEA comments at 27-29.*

II) THE CCTS VIOLATES MT. HOOD FOREST PLAN

a) Does not comply with LRMP standards for snag retention.

In the context of an already snag-depleted ecosystem, which is below the LRMP standards for snag density, a project that increases the snag deficit for decades does not comply with the LRMP. *See FEA at 61, FW-215, 216.* The Draft Decision Notice does not

[4] Mt. Hood National Forest Strategic Fuels Placement Plan, 2012, at 2.

address compliance with FW-215 and 216, although there is ample evidence in the FEA that this project does not comply with either standard.

b) Does not comply with LRMP standard for sensitive and threatened wildlife.

FW-175 requires that habitat for threatened, endangered and sensitive plants and animals shall be protected and/or improved. *Mt. Hood LRMP, FW-175*. In the LRMP Consistency Determination for wildlife, the FEA simply restates this standard with no analysis or rationale, despite the fact that the project removes & downgrades habitat for threatened owls for 75-100 years, and reduces the amount of snag habitat for sensitive and.

c) Does not comply with LRMP Standards for Road Density

In the B2/Scenic Viewshed Land Allocation, open road density between December 1st and April 1st shall not exceed 1.5 miles per square mile. This is not currently the case for this land allocation within the CCTS project area, according to the numbers on Table 53. Also, the current open road density in summer range (lands not in B10 LUA or Inventoried winter range) is 2.78 which is above the 2.5 miles per square mile for the LRMP Standard in inventoried summer range. To achieve their Standards and Guidelines in the LRMP, the FS must *reduce,* not increase, road density in this land allocation.

III) CCTS DOES NOT COMPLY WITH NORTHWEST FOREST PLAN

a) Logging in White River Late Successional Reserve (LSR) does not comply with Northwest Forest Plan.

Late-Successional Reserves are to be managed to protect and enhance conditions of late-successional and old-growth forest ecosystems. *NWFP Standards & Guidelines, C-11*. Thinning and other silvicultural treatments inside reserves are subject to review by the Regional Ecosystem Office to ensure that the treatments are beneficial to the creation of late-successional forest conditions. *Id. at C-13.*

In DEA comments, Bark asked if MHNF consulted with the Regional Ecosystem Office in preparing this project and, if so, to include the REO's statements about the LSR logging in the final NEPA document. *DEA Comments at 19.* The Response to Comments vaguely states: "The Forest followed all law, regulation, and policy in regard to proposed treatments within the White River LSR Assessment as described in Section 3.1.4 of the Silviculture Report, and in the Management Direction section of the EA (1.6)." Based on

this inadequate response, Bark cannot confirm that the FS did in fact consult with the REO as required by the NWFP, and thus the FS cannot "ensure that the treatments are beneficial to the creation of late-successional forest conditions."

In DEA comments, Bark also raised concern that the proposed logging in LSRs did not meet any of the narrow parameters within which logging in older stands is allowed, and reminded the FS that, because of the general prohibition on commercial logging in LSRs, it is the agency's burden to show the proposed actions are **clearly** needed. *DEA comments at 20.* There was no such proof of need provided in the FEA.

The FEA purports to follow the White River LSR Assessment in developing the silvicultural prescriptions for logging in the LSRs. However, the project does not follow the LSR Assessment. The LSRs in the project area are categorized as "Open Park-like, Cathedral and Open Intolerant Multi-story" forest. *FEA at 11.* The Desired Future Condition for "Open Intolerant multi-story" and "Open Park-like" post-treatment is variable canopy closure (40% to 80%) and "Cathedral" stands have a post-treatment canopy closure greater than 60% but less than 85%. *LSR assessment V-16.* This canopy cover should be achieved through "retention of **any**[5] remnant large diameter trees, marking trees on the basis of desired canopy closures developed from the overlay of existing structures and eventual desired structures rather than on the basis of spacing and basal area, snags & down wood left." *LSR assessment V-16.*

According to Appendix 1 of the DEA, the average canopy closure in the LSR units post-treatment is **35%,** well below that prescribed in the LSR assessment. It is also below that needed to provide NSO habitat. Several of the LSR units are older forests that are currently on a trajectory to naturally progress towards a more complex, late successional stand, including units 3, 5, 7, 8L, 9L, and 458.

b) Failure to protect Survey and Manage species violates Northwest Forest Plan.

The NWFP requires the agency to survey & manage for many species when logging in areas over 80 years old. If found, species must be managed in accord with the NWFP. The Draft Decision Notice claims that the project complies with 2001 Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines, stating that "for botanical species, surveys **were** conducted and concluded that their habitats would be

[5] While the FEA states that "the individual stand prescriptions for the units in the LSR would use stand appropriate diameter limits" it provides no information about how those diameter limits will be determined or what they will be – making it impossible for the public to determine if the prescription complies with the LSR Assessment. *FEA at 11.*

maintained and known sites would be protected." *DDN at 12-13 (emphasis added).* The use of the past tense leads to this objection because it implies no future surveys to ensure compliance with the Survey & Manage guidelines.

In DEA comments, Bark provided detailed information about two Survey & Manage species, *Cypripedium montanum* and *Albatrellus flettii* that trained volunteers identified in CCTS units.

Bark also contacted three MHNF botanists, Christina Mead, David Lebo, and Susan Nugent on Friday, 9/15, and again on 9/20, and received a response requesting locations and photo documentation of the species found. Bark provided all the requested information, along with credentials for our field survey team.

Cypripedium montanum is listed in the 2003 Survey and Manage ROD as Category C species, which requires (1) management of high-priority sites, (2) pre-disturbance surveys, and (3) strategic surveys prior to any agency action that would disturb the species' habitat. This species was found in Unit 8L.

Albatrellus flettii is a Category B survey and manage species under the 2003 Survey and Manage ROD. Several individuals of this species were found in units 507 and 447.

The FEA does not include any reference to the additional sites and species found by Bark volunteers. To clarify that these species would, in fact, be protected, Bark staff contacted the acting NEPA Planner, who replied "All survey and manage species found will be buffered from harvest units during implementation, these buffers were not removed from the units in the NEPA, but project design criteria ensure that protection will occur during implementation. Surveys for survey and manage species in the CCR planning area are now complete and these areas will be buffered from harvest activities. Sites reported by BARK will be field verified by a botanist prior to implementing a buffer."[6]

Bark is concerned about the FS's capacity to implement such project design criteria, and requests that the FS provide accurate maps of all existing buffers with the final decision and comply with NWFP's Survey and Manage requirements, by including buffers for the S&M sites identified by Bark.

IV) FAILURE TO COMPLY WITH ENDANGERED SPECIES ACT

a) Failure to comply with NSO Recovery Plan

[6] Email from Hannah Smith, March 06, 2018.

In comments, both Bark and ABC highlighted how the project results in adverse modification to NSO critical habitat and does not comply with the Recovery Plan. *Bark DEA Comment at 36, ABC DEA Comments at 11.* The 2011 Recovery Plan for the NSO contains the proviso that long-term benefits to NSOs of forest thinning treatments must be based on best available science and **clearly outweigh** adverse impacts from commercial logging. The CCTS fails on both accounts.

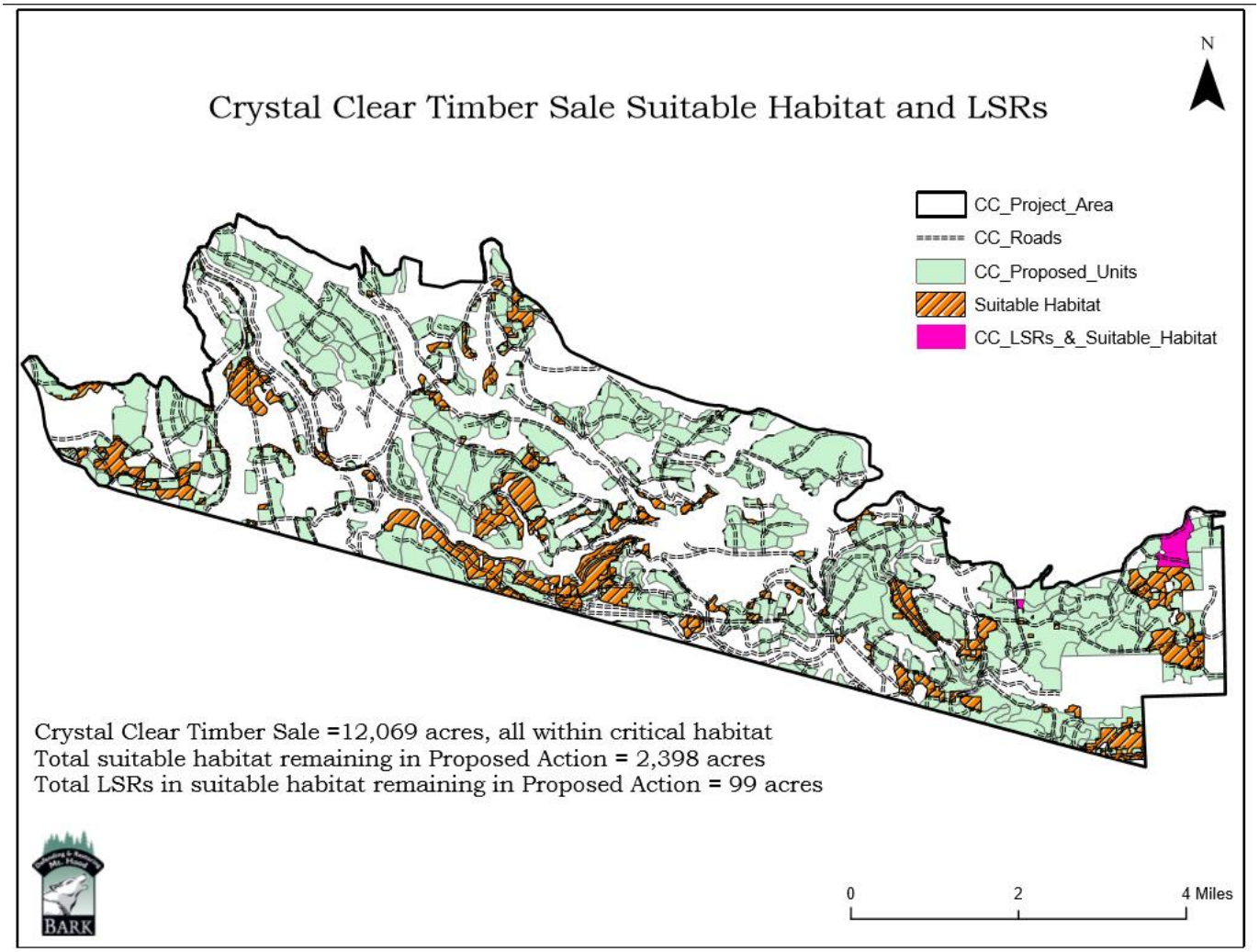
Of the 12,072 acres of critical habitat proposed for treatments, approximately 2,148 acres are providing only dispersal habitat and 1,946 acres are providing suitable habitat for NSOs. *FEA at 118.* The project would downgrade 1,059 acres of suitable habitat to dispersal and remove 895 acres of dispersal habitat.

While we appreciate the removal of the approximately 605 acres of suitable habitat from the project, there remain 1,059 acres of suitable habitat slated to be logged. *FEA at 17.* Suitable habitat is, by definition, "high value" NSO habitat and should **all** be protected to comply with Recovery Actions 10 & 32.[7]

In Bark's scoping comments, and again in DEA comments, we detailed the findings of a recent study, that concluded the long-term benefits of commercial thinning **do not** clearly outweigh adverse impacts, *even if* much more fire occurs in the future.[8] The FEA does not acknowledge this report nor comment on its conclusion that the combination of thinning and maintenance reduced *6.7 times* more late-successional forest than it increased. Even if a future high-severity fire was a given, the best available science shows that NSOs respond <u>better</u> to natural disturbances such as fire than they do to logging. *Logging existing high-quality suitable habitat, including in LSRs, does NOT comply with Recovery Action 10 & 32.*

[7] In comments, Bark identified units 9, 9L, 104, 375, 447, 470, 471, 472, 473, 474, 475, 478, 479, 504, 505, 507, 508, 509, and 510 as meeting the habitat characteristics listed. Many of these units are still included in the proposed action. *DEA comments at 37.*

[8] Odion, D., Hanson, C., DellaSala, D., Baker, W, & Bond, M., 2014, Effects of Fire and Commercial Thinning on Future Habitat of the Northern Spotted Owl, The Open Ecology Journal, 7, 37-51.



Data used to create the map above was included in Bark's 2017 FOIA of the CCTS project shapefiles, including calculations of remaining acres of habitat, which are not entirely consistent with the numbers given in the Final EA

b) Appreciable diminishment of the value of Critical Habitat

Despite the clear direction of the ESA, the Critical Habitat rule, and the NSO Recovery Plan to protect and enhance NSO Critical Habitat, this is the fourth (and by far the largest) timber sale the FS has proposed in this specific Critical Habitat sub-unit in the past five years.

As noted in DEA comments, Bark is concerned that the overstated threat of wildfire in the EA caused equivocation in determining realistic impacts to critical habitat. As noted several times in comments, fire is an unpredictable force, and one that NSOs are evolutionarily adapted to. In contrast to the possible impacts of a potential future fire, **the FS is proposing to remove and degrade the NSO habitat long before a natural disturbance may.** Moreover, this "treatment" may only be effective at altering fire

behavior for 10-20 years, though NSO habitat would be removed for 75-100 years. *Compare DEA at 121, 215.*

In scoping comments, Bark raised the issue that the CCTS project area provides an important north-south link for NSOs. Also, the Watershed Analysis recommended maintaining existing NSO suitable and dispersal habitat in the Eastside Zone until increases in such habitat have been achieved in the Transition and Crest Zones.[9] Neither the draft nor the final EA address the impact of the removal of critical habitat on either the north-south travel of the owl, or consistency with the White River Watershed Analysis recommendations.

The FS has provided no ecological justification to log in suitable and dispersal NSO critical habitat. The adverse impacts of logging and road building in critical habitat are much greater than the unlikely future benefits of possibly reducing the severity of a potential fire, and thus this project does not comply with the ESA, the NSO Recovery Plan, and the MHNF's LRMP.

c) Cannot reply on inadequate Biological Opinion

Our concerns about NSO suitable and dispersal habitat have not been addressed, and have increased, because of the wholly inadequate consultation with the U.S. Fish and Wildlife Service. The US FWS 2018 Biological Opinion is inaccurate, relies on flawed assumptions, mischaracterizes or ignores best available science, and fails to consider relevant factors.

For example, the 2018 Biological Opinion fails to accurately describe the proposed action. It consistently refers to the project as a "dry forest restoration project" when, in fact, it includes 5,646 acres of moist mixed conifer forest, 97% of which is in its natural fire return interval. Of that, more than 1,200 acres are mature and old growth forest. Inaccurately representing the environmental baseline, and mis-characterizing the project itself, prevents the FWS from making an independent, scientifically supportable determination of the project's impact.

Federal agencies must use the best scientific and commercial data available to comply with their obligations under section 7. 16 U.S.C. § 1536(b); *Res. Ltd., Inc. v. Robertson*, 35 F.3d 1300, 1304 (9th Cir. 1994). An action agency's reliance on an inadequate, incomplete, or flawed biological opinion cannot satisfy its duty to avoid the likelihood of jeopardy to listed species. *Fla. Key Deer v. Paulison*, 522 F.3d 1133, 1145 (11th Cir.

[9] Bark scoping comments at 6.

2008). Given the FS's independent legal duty to ensure this project complies with the ESA, its reliance on the flawed Biological Opinion is unreasonable.

V) INADEQUATE ANALYSIS OF ALTERNATIVES

a) Biased and inadequate "No Action Alternative" analysis

A recurring theme in the CCTS EA is: "if left standing, these trees might die from insects, disease or fire." This seems to be accompanied with the assumption that natural disturbance processes are undesirable, and that the FS prefers to log trees before they may die naturally. Because the EA avoids explanation of why natural disturbance is "bad" for the forest, we are left with the assumption that the FS does not want trees to die naturally so it can meet volume targets. This theme lends an editorial bias to the alternatives analysis that obscures the potential benefits of "no action" and adverse impacts of the proposed action.

As per NEPA regulations, "the EA may document consideration of a no action alternative through the effects analysis by contrasting the impacts of the proposed action and any alternative(s) with the current condition and expected future condition if the proposed action were not implemented." 36 C.F.R. § 220.7(b)(2)(ii). In DEA comments, Bark raised the concerns that the EA evaluated the expected future condition of the forest, for both Action and No Action, as if a severe fire <u>is</u> certain to occur, and that the CCTS <u>will</u> minimize its impacts. This is repeated in the final EA and the Draft Decision, where Ranger Sam states, "Fuel treatments associated with the Proposed Action would remove sufficient fuels so that fires **would** burn with a lower intensity." *DDN at 4.*

Bark raised the question of fire probability, fuel treatment effectiveness, and ecological tradeoffs in DEA comments, and requested that MHNF "provide an analysis of the likelihood of fire in the final assessment." *DEA comments at 10.* The FEA fails to incorporate the study Bark cited,[10] or provide the analysis necessary to determine the likelihood that the project area would experience a fire, in the right time and conditions for the project to affect its severity.

Also, some of the No Action analysis is logically flawed. For example, the section on Vegetation Resources concludes: "Ultimately, with no vegetation treatments, the stand would remain in dense overstocked conditions, no mosaic re-initiation of understory; risk of insect and disease levels and vulnerability of the stands to infestations would remain high; and stand density would continue to increase." *DEA at 85.*

[10] Rhodes, J. and Baker, W. 2008. Fire Probability, Fuel Treatment Effectiveness and Ecological Tradeoffs in Western U.S. Public Forests. The Open Forest Science Journal, 2008, 1.

In DEA comments, Bark requested that the FEA clarify this statement, because an increase in insect and disease infestations would kill *more* trees and thus *decrease* stand density, while creating more snags and down wood. Tables 14 & 15 in the FEA do not support the agency's own conclusions, as they show that no action will indeed result in a much *lower* tree density in the future:

Table 14 and Table 15 compare the action and no action alternatives for both the moist and dry mixed-conifer plant communities. Compared to the No Action Alternative, the Proposed Action would reduce the TPA, basal area, and stand density index (SDI) [9] while still increasing stand quadratic mean diameter (QMD)[10] in the short term. A lower TPA and basal area result in stands that reflect more natural conditions for these plant associations, and create defensible space around the wildland urban interface, strategic roads, and ridge tops for use during a large scale disturbance event such as fire.

Table 14. Moist mixed-conifer comparison of alternatives over a 100-year period

Time After Treatment	BA		SDI		TPA		QMD		Average Height	
	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action on
2016	192	106	424	193	1228	200	6.6	10.2	96	72
2066	288	280	582	595	1034	1023	8.0	7.3	126	117
2116	298	300	544	526	630	476	10.6	11.4	127	134

[9] SDI is an index based on the relationship between tree size and the number of trees per acre.
[10] QMD is the diameter corresponding to the average diameter by basal area.

Table 15. Dry mixed-conifer comparison of alternatives over a 100-year period

Time After Treatment	BA		SDI		TPA		QMD		Average Height	
	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action on
2016	200	100	396	173	755	150	8.4	11.6	104	80
2066	260	249	479	473	555	562	10.2	9.0	110	95
2116	280	280	497	466	460	330	11.3	12.8	108	105

The desired future conditions for the stands would be to move them towards a more properly-functioning plant community as defined by White River Watershed Analysis, forest plant association guides, and the White River Late-Successional Reserve Assessment. By moving stands towards the desired future conditions, they would become or maintain a multi-storied uneven-aged stand structure in the moist mixed-conifer communities. Within the dry mixed-conifer, stands would be moved towards a more open two-storied stands. After treatment, the stands should become more resilient to perturbations such as

Instead of explaining the DEA's unsupported conclusion, or making it reflect forest ecology, the FEA repeated it almost verbatim: "In the long term, with no vegetation treatments, the stands **would remain in dense overstocked conditions** with no mosaic reinitiation of understory. Risk of uncharacteristically high levels of insect and disease mortality would remain high. Stand density would also continue to increase." *FEA at 62-63.* The assertions in the "No Action" Alternative analysis are simply without scientific, or even logical, support and demonstrate the action-oriented bias of this EA.

b) One action alternative does not satisfy NEPA

"NEPA requires that alternatives . . . be given full and meaningful consideration, whether the agency prepares an EA or an EIS." *Ctr. for Biol. Diversity v. NHTSA*, 538 F.3d 1172, 1217 (9th Cir. 2008) *Id. Id. Id.*

All reasonable alternatives must receive a "rigorous exploration and objective evaluation…, particularly those that might *enhance environmental quality or avoid some or all of the adverse environmental effects*." *Id.* § 1500.8(a)(4) (emphasis added). The FS's NEPA regulations do provide that, for projects with no unresolved conflicts concerning alternative uses of available resources, an EA need analyze only the proposed action and no action without consideration of additional alternatives. 36 C.F.R. § 220.7(b)(2)(i) Timber Sale. Throughout the NEPA process, Bark and other commenters identified many unresolved conflicts concerning the best use of available resources and proposed several action alternatives designed to remedy these conflicts. designed to remedy these conflicts. designed to remedy these conflicts.

In scoping and DEA comments, Bark highlighted the many unresolved conflicts and requested a more robust set of alternatives be provided to facilitate a final decision better suited to meet the proposed purpose and need. To that end, Bark suggested, in detail, three reasonable alternatives, including an alternative that includes an 18-inch DBH limit, an alternative that removes the units in FRCC 1 and focuses fuels reduction logging in FRCC 2 & 3, and an alternative that removes logging in suitable and dispersal habitat for the NSO.

The FEA only acknowledged one – not logging in suitable and dispersal habitat for the NSO – but did not further develop it because "it did not provide additional assurance that NSO habitat would be retained on the landscape." *DDN at 8.* This does not make sense, as the suggested alternative *absolutely* retains more owl habitat on the landscape than the proposed action, which would remove over 2,000 acres. In the case of the decision-maker referring to the potential of owl habitat being affected by a possible future fire, this speculative impact is far more uncertain than the admitted impact of

logging existing suitable and dispersal habitat and is not a compelling reason to omit further development of the proposed alternative.

The requirement for evaluating alternatives is only satisfied if "an appropriate explanation is provided as to why an alternative was eliminated." *Native Ecosystems Council*, 428 F.3d at 1246; see also *Envtl. Prot. Info. Ctr. v. U.S. Forest Serv.*, 234 F. App'x 440, 443 (9th Cir. 2007) ("cursory dismissal of a proposed alternative, unsupported by agency analysis, does not help an agency satisfy its NEPA duty to consider a reasonable range of alternatives").

In this instance, the decision-maker said he had "considered the suggested alternatives," and that "I do not consider any of the suggestions received to warrant the generation of additional fully-developed alternatives in the EA." *DDN at 9.* However, this only applies to those few alternatives briefly mentioned and summarily dismissed from the FEA, including closing roads in Riparian Reserves, closing roads suggested by the public in the TAR, and logging less owl habitat. Neither the DEA, nor the FONSI, mention the other reasonable alternatives suggested.

Recently, the District Court of Oregon reviewed a similar issue in *Oregon Wild v. BLM* and found that "an EA must still give full and meaningful consideration to all reasonable alternatives." *Western Watersheds v. Abbey*, 719 F.3d 1035, 1050 (9th Cir. 2013). The Ninth Circuit made clear in *Abbey*, "The existence of a viable but unexamined alternative renders an EA inadequate." 719 F.3d at 1050.

In *Oregon Wild v. BLM*, Plaintiffs argued the EA was inadequate because it failed to analyze viable alternatives to the proposed project, in particular one limiting the project's variable retention harvest to younger trees. The District Court agreed, finding their proposed alternative "appears reasonable in light of the project's purpose and need." Similarly, in *Conservation Congress v. USFS*, the District Court found that the FS violated NEPA by failing to consider an alternative with a diameter limit, as it was reasonable to suggest that retaining the larger trees would meet the agency's stated purpose of fuels reduction. 235 F.Supp.3d 1189, 1211 (2017).

Like the proposed timber sales in those cases, the CCTS has many unresolved conflicts concerning alternative uses of resources, and the FS should explore, in detail, several of the reasonable alternatives suggested in comments. Failing to do so renders the EA inadequate.

c) Use of "Timber Pipeline" funds created a predetermined bias in decision-making

The FS's failure to meaningfully analyze more than a single action alternative seems connected to the FS's use of "Timber Pipeline" funds to plan this project. In April, 2016, the Regional Office sent MHNF a letter which specifies a pre-determined outcome for the NEPA process: "As indicated in the updated Economic Analysis, you are expected to produce the following outputs: CCR Project 100,000 CCF FY 2018-2021. The Forest shall ensure that the total stumpage value from this project is sufficient to provide for the following required deposits . . ." While this letter answers why a purported "fuels reduction" project is targeting logging in mature and old growth forests, it also raises serious questions as to whether the agency predetermined the project outcome *before* any NEPA analysis or public participation.

The Ninth Circuit has "noticed a disturbing trend in the USFS's recent timber-harvesting and timber-sale activities". After listing numerous cases in which the court found the FS had violated federal environmental laws, it concluded "[i]t has not escaped our notice that the USFS has a substantial financial interest in the harvesting of timber in the National Forest. We regret to say that in this case, like the others just cited, **the USFS appears to have been more interested in harvesting timber than in complying with our environmental laws**." *Earth Island Inst. v. U.S. Forest Serv.*, 442 F.3d 1147, 1178 (9th Cir. 2006).

In yet another opinion from the Ninth Circuit, Judge Noonan questioned the fiscal impartiality of the FS. *Sierra Forest Legacy v. Rey*, 2009 WL 2462216, *7 (9th Cir. 2009) (Noonan, J., concurring) (criticizing the agency for selling timber to meet hazardous fuels objectives).

> "In the instant case the decision-makers are influenced by the monetary reward to their agency, a reward to be paid by a successful bidder as part of the agency's plan…Against this background of precedent, the FS's own regulation requires that the FS "objectively evaluate all reasonable alternatives." 40 C.F.R. § 1502.14(a) (2000). Can an agency which has announced its strong financial interest in the outcome proceed objectively? Could an umpire call balls and strikes objectively if he were paid for the strikes he called?" *Sierra Forest Legacy*, 2009 WL 2462216 *7.

As a policy consideration, the use of the Timber Pipeline funding heightens the likelihood that the agency had a foregone conclusion by only proposing one action alternative, and then selecting it.

VI) LACK OF ECONOMIC ANALYSIS

As noted in Bark's comments, the DEA did not contain an economic analysis of this project. Bark requested that the FS invest the required resources and provide a credible economic analysis of the project for public consideration.

The final EA contains slightly more economic information than the draft:
"The NWFP contains an analysis of employment in the timber industry. The annual incremental contribution of each million board feet of timber can be derived as approximately 8.3 jobs. It is estimated that an average volume of 7,000 board feet per acre may be produced from the commercial treatment units as a result of this project." *FEA at 65.*

However, this very general analysis is flawed. It relies on employment statistics set out in the NWFP almost 25 years ago, but jobs per board feet have significantly declined due to mechanization of the industry and should be updated to reflect current numbers. Also, it sets out a very general estimate of 7,000 bf per acre, but does not predict how many mmbf the entire project will produce, or over what time period. This makes it difficult to get an accurate sense of the actual board feet removed from the forest, or the impact to the local economy over time.

As noted above, it recently came to our attention that projects pursued using the Timber Sale Pipeline restoration fund must prepare an economic analysis. *Forest Service Manual, 2409.19, Chpt. 51.1*. The FS erred by not including this economic analysis for public review in the EA, despite a direct request in public comment for more detailed economic information.

VII) INADEQUATE BASELINE DATA VIOLATES NEPA

To comply with NEPA's "hard look" mandate, agencies are obligated to maintain a current inventory of resources so that an adequate baseline exists to evaluate the environmental impacts of a proposed action. *Ctr. for Biol. Diversity v. Bureau of Land Mgmt.,* 422 F.Supp.2d 1115, 1163 (N.D. Cal. 2006); see also *Or. Natural Desert Ass'n v. Rasmussen*, 451 F.Supp.2d. 1202, 1212-13 (D. Or. 2006). The environmental baseline is an integral part of an EA, because it is against this information that environmental impacts are measured and evaluated; therefore, it is critical that the baseline be accurate and complete. *Am. Rivers v. Fed. Energy Regulatory Comm'n*, 201 F.3d 1186, 1195 & n. 15 (9th Cir. 2000); *Ctr. for Biol. Diversity*, 422 F.Supp.2d at 1163.

The establishment of a "baseline is not an independent legal requirement, but rather, a practical requirement in environmental analysis often employed to identify the environmental consequences of a proposed agency action." *ONDA v. Jewel* 840 F.3d 562 (2016), citing *Am. Rivers,* 201 F.3d at 1195 n.15. As set out by the courts, the FS has a duty to assess, in some reasonable way, the **actual** baseline conditions in the CCTS planning area. The FEA and DDN both grossly over-generalize the ecological condition of the project area by suggesting that the area is overall dense and homogeneous.[11]

As detailed extensively in Bark's scoping and DEA comments, the baseline characterization of a homogeneous, overstocked forest does not align with findings on the ground. Bark's DEA comments listed many units with a stand structure that *currently* meets the FS's desired future condition: widely spaced, large diameter trees, and well-developed understory. *DEA comments at 12-18.*[12] Stands that have previously been thinned, and/or stands that have not been actively managed both display stand structure that is *not* dense and overstocked.[13] Bark's assessment is supported by the FEA's own Tables 6 & 7 that show the actual canopy cover in many areas is already lower that the desired canopy cover and displays the heterogeneity of the forest, with canopy cover ranging from 30-90%. *FEA at 23-24.*

Also, these older thins and shelterwood harvests cannot have been included in the accounting for figures in Table 14, which suggest that in the moist mixed conifer, the proposed action will drop the number of trees from 1228/acre to 200 trees/acre. *FEA at 65.* Many of the previously logged units have nowhere near 1228 trees per acre, making it impractical, if not impossible, to log 828 trees per acre. Many of these units also have a canopy closure that is currently lower than the desired future canopy, including units such as 144, 109, 210, 219, and 223. Neither the DEA or Response to Comments provide any site-specific review of Bark's comments, despite our request to do so, and simply reiterated that these stands need to be logged to achieve the "desired future condition."

The lack of accurate environmental baseline, and the failure to remedy this lack despite high-quality site-specific information provided by commenters, means that the FS (and the public) is unable to take a "hard look" at the impacts of the project. "If an EA does not reasonably compile adequate information and sets forth statements that are materially false or inaccurate the Court may find that the document does not satisfy the

[11] See, e.g., "The stands included in this project have been examined and those proposed for thinning have been found to be overstocked." *DDN at 3*

[12] Previously thinned units include 1, 3, 7, 8, 15, 33, 34, 38, 47, 52, 54, 70, 109, 144, 210, 219, 223, 331, 332, 383, 386, 390, 429, 445, 451, 456, 458, 471, 452, 122, 370, 422, 9L, 8L, 56, 110, 108, 475, 53, 479, 379, 468, 301, 452, 104, 125, 35, 40, and 82.

[13] Bark's DEA comments include numerous pictures showcasing the units that currently meet the "desired future conditions."

requirements of NEPA, in that it cannot provide the basis for an informed evaluation or a reasoned decision." *Western North Carolina Alliance v. N. Carolina Dept. of Transp.*, 312 F. Supp. 2d 765, 776- 77 (E.D.N.C. 2003), citing *Sierra Club v. United States Army Corps of Eng'rs*, 701 F.2d 1011, 1030 (2d Cir.1983). "A material misapprehension of the baseline conditions existing in advance of an agency action can lay the groundwork for an arbitrary and capricious decision." *Friends of Back Bay v. U.S. Army Corps of Engineers*, 681 F.3d 581, 588 (4th Cir. 2012).

VIII) FAILURE TO PROVIDE ACCURATE SCIENTIFIC ANALYSIS AND ADDRESS SCIENTIFIC CONTROVERSY

CEQ's regulations direct that the agency "shall discuss at appropriate points in the final statement any responsible opposing view which was not adequately discussed in the draft statement and shall indicate the agency's response to the issues raised." 40 C.F.R. § 1502.9(b). This disclosure requirement obligates the agency to make available to the public high-quality information, including accurate scientific analysis, expert agency comments and public scrutiny, before decisions are made and actions are taken. 40 C.F.R. § 1502.24. While these regulations apply directly to EISs, it is as important, if not more so, for high-quality analysis in EAs because the agency relies on them to determine significance. Without the same standards for scientific integrity and debate in an EA, the FS could not support its significance determination.

The FS's failure to disclose and analyze opposing viewpoints and scientific analysis violates NEPA and 40 C.F.R. § 1502.9(b). *See Cal. v. Block,* 690 F.2d at 770-71 (NEPA's requirement that responsible opposing viewpoints are included in NEPA analysis "reflects the paramount Congressional desire to internalize opposing viewpoints into the decisionmaking process to ensure that an agency is cognizant of all the environmental trade-offs that are implicit in a decision").

a) Lack of engagement with Scientific information about fuels reduction and fire behavior

In comments, Bark offered multiple studies that contradict the DEA's analysis and assumptions. The DEA fails to meaningfully engage in the following ways:

1) Neither the draft or final EA addressed the study that found a 92-98% chance that fuels treatment will ***not*** affect fire behavior.[14] In direct contrast to this high uncertainty, the FEA couched all effects on future fire behavior as certain.[15]
2) The FEA continues to present fire on the landscape in terms of a problem that needs to be limited or controlled. This fails to acknowledge scientific evidence that moderate frequency, mixed severity fire regimes are relatively common within the larger "moist forest" area[16], and that higher severity fires provide age-class diversity that is essential to the full complement of native biodiversity and fosters ecological resilience and integrity.[17]
3) The FEA does not acknowledge or engage a key issue raised in many EA comments: reducing fuels does not consistently prevent large fires, and seldom significantly reduces the impacts of these large fires, as **weather** has the dominant impact on fire behavior.[18]
4) The FEA does not engage with cited studies which found that fuel reductions may actually exacerbate fire severity, despite a direct request in comments to do so.[19]
5) Most fire ecologists agree that removal of large, old trees is not ecologically justified and does not reduce fire risks. Large, old trees of fire-resistant species are the ones most likely to survive a wildfire and subsequently serve as biological legacies and seed sources for ecosystem recovery.[20] They also are exceptionally important as wildlife habitat, before and after a wildfire event, and as sources of the large

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[14] Rhodes, J. and Baker, W. 2008. Fire Probability, Fuel Treatment Effectiveness and Ecological Tradeoffs in Western U.S. Public Forests. The Open Forest Science Journal, 2008.

[15] "Overall, the Proposed Action **would** have a beneficial effect to fuels, in that fuels treatments **would** reduce flame lengths and fire intensity within the project area. These reductions **would** allow for suppression tactics that **would** result in increased safety of suppression personnel. Also, they **would** allow for a reduction in the level of disturbance to natural resources when compared to indirect attack methods" *FEA at 67.*

[16] Hanson, C.T. 2010. The myth of "catastrophic" wildfire: a new ecological paradigm of forest health. John Muir Project Technical Report 1. John Muir Project of Earth Island Institute, Cedar Ridge, California.

[17] Id.

[18] Schoennagel, T., et. al, 2017, "Adapt to More Wildfire in Western North America as Climate Changes." Proceedings of the National Academy of Science, *see also* Lydersen, J., North, M., Collins, B. 2014. Severity of an uncharacteristically large wildfire, the Rim Fire, in forests with relatively restored frequent fire regimes. Forest Ecology and Management 328 (2014) 326–334.

[19] "In the final NEPA document, please thoroughly discuss the cited studies and papers that raise the question of removing fuels as a means to affect future fire behavior, that weather is the dominant driver of fire behavior and as well as the conclusion that opening the canopy might actually increase severity of fire compared to a dense, moist forest." *DEA comments at 26* .

[20] Schnepf, C. 2010. Reducing Fire Risk on Your Forest Property. OSU Extention Service: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0ahUKEwjutMnn3ZTaAhUBKWMKHdbaBAoQFggvMAE&url=https%3A%2F%2Fir.library.oregonstate.edu%2Fdownloads%2F2b88qc580&usg=AOvVaw0fDfyruYthUHcvSRDr_Yb9

snags and logs that are critical components of terrestrial and aquatic habitats. The FEA fails to engage with this critique.

6) Failure to engage with the critique of the fuel models relied on in the EA, FFE-FVS and FlamMap, which are considered flawed in the scientific community because they have an underprediction bias and are not validated.[21]
7) The DEA acknowledged the current fuels "treatment" will only be effective for 10-20 years, at which time fire behavior would return to existing conditions without follow-up or maintenance fuels treatments. *DEA at 121.* Bark raised concerns in comments;[22] rather than addressing the short efficacy of the fuels treatment, and/or providing a plan for long term maintenance, **the final EA simply removed that sentence.**

b) Lack of engagement with scientific information about impacts to Spotted Owls

As noted above Bark's scoping comments detailed the findings of a recent study that concluded the long-term benefits of commercial thinning do not clearly outweigh adverse impacts, *even if* much more fire occurs in the future.[23] ABC's DEA comments also note that "best science does not indicate that the owls are threatened by habitat loss from fire, and given the owls' precipitous decline, short-terms losses are not acceptable in exchange for unproven long-term benefits. Moreover, growing number of peer-reviewed studies indicate that owls are adapted to fire and preferentially utilize burned forests for foraging, and that fuels treatments are causing significant harm to owls and loss of mature forests needed for owl recovery." *ABC comments at 13.*

Neither the draft not final EA acknowledge this research. The FEA does not engage, in any way, with the extensive comments and scientific cites offered in public comment that challenging the EA's assumption that logging high quality suitable habitat is beneficial to the NSO.[24]

In addition, the 4 miles of proposed new temporary roads would remove 7.3 acres of suitable habitat. *EA at 218.* In Bark's scoping comments, and DEA comments cite a peer-reviewed scientific article which concluded that NSOs create an avoidance buffer

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[21] DellaSalla, et. al, the Ecological Importance of Mixed Severity Fires, at 384.

[22] "Much of the fuel treatment will be paid for by the logging of large trees in the project area. This is unlikely to be repeated, as those trees will be gone, and the federal budget for fuels reduction is ever shrinking. Thus, it is safe to say that it is uncertain to unlikely that the agency will have the funds necessary to maintain the low fuel load it seeks." *Bark DEA comments at 26.*

[23] Odion, D., Hanson, C., DellaSala, D., Baker, W, & Bond, M., 2014, The Open Ecology Journal, 7, 37-51.

[24] Bark's comments contained 11 pages about the project's impacts on the spotted owl, including very site-specific information. The FEA containes 2 pages, that don't include ANY of the science or site-specific info from Bark's comments.

of an average of 1,312 feet (437 yards) from forest roads.[25] This was not addressed or discussed in the FEA, nor was there scientific support provided for the proposition that owls only need a 65-yard buffer from roads.

IX) FAILURE TO TAKE A HARD LOOK AT ENVIRONMENTAL IMPACTS

It is squarely the burden of the FS to provide adequate data and analysis to prove that it has considered every aspect of environmental concerns in enough detail to determine their significance. Throughout the entire administrative comment process, Bark exposed the FS's misleading characterizations of baseline conditions, raised concerns about gaps in the FS's data, and provided numerous studies that question or directly disagree with the FS's assertions. Bark has offered this information to the FS to improve its NEPA analysis, but it, in large part, has been ignored.

Failure to provide "quantified or detailed information" of environmental impacts is a failure to take "a hard look, absent a justification regarding why more definitive information could not be provided." *Neighbors of Cuddy Mountain, 137 F.3d at 1379–80*. "The 'hard look' must be taken objectively and in good faith, not as an exercise in form over substance, and not as a subterfuge designed to rationalize a decision already made." *W. Watersheds Project v. Kraayenbrink*, 632 F.3d 472, 491 (9th Cir. 2011). The agency must discuss adverse impacts and not minimize a project's negative effects. *Id.*; *Earth Island Inst. v. U.S. Forest Serv.,* 442 F.3d 1147, 1159 (9th Cir. 2006).

a) Failure to take a hard look at increasing fire ignition by opening closed roads, and building news ones

If the primary purpose and need of the CCTS project is truly to reduce wildfire risk, the district should have engaged with the scientific research shared in DEA comments, which found that fire danger is higher in areas with existing roads and it increases dramatically with construction of new roads. *Bark DEA comments at 27-29.* Rather than addressing this issue by decreasing the number of road miles added to this project area, or proposing to close more roads, the FS avoided addressing the intersection between increased road density and human ignition.

The FEA also glossed over the fact that post-project road closures are not always effective, and the new road network is likely to be used by hikers, bikers, OHV riders and others. We all know road closures are regularly breached. Bark's comments asked

[25] Wasser, S.K., K. Bevis, G. King, and E. Hanson. 1997. Noninvasive physiological measures of disturbance in the northern spotted owl. Conservation Biology 11(4): 1019–1022.

the FS to honestly assess the likelihood of increased access & risk because of the much larger post-project road system, but it failed to do so.

b) Failure to take a hard look at adverse impacts to Northern Spotted Owls

Both the quantity and quality of analysis in the FEA declined significantly from the draft. The DEA contained almost 20 pages of information, including tables, graphs and maps about the project's impacts on NSOs and critical habitat. The FEA contains 2 pages and omits all the supporting data. The FEA also obscures, or directly contradicts, the more staightforward presentation of data and analysis in the DEA.

For example, compare:

> "The removal of suitable habitat has an indirect effect on NSOs by reducing the amount of potential nesting, roosting or foraging habitat. These effects on local owl populations are greater when the amount of suitable habitat remaining post-harvest is limited in the area. The loss of nesting structure may reduce the number of breeding pairs if other nesting habitat is limited. The loss of roosting habitat reduces the number of stands that provide thermal protection, plus these stands usually also function as foraging habitat. The loss of foraging habitat could reduce the amount of food available to nearby adult and juvenile owls, which could affect their survival if other foraging options are limited. The removal of unoccupied suitable habitat could preclude future NSO occupancy for a period of time. It is estimated that these units would again provide quality suitable habitat in 75 to 100 years after treatments, depending on the site conditions." *DEA at 215*.

With:

> "Treatments would delay the development of PBFs on these acres in the stands following treatment and the life history needs would no longer be met in these units until the stands develop PBFs again in 25 to 75 years. Habitat for PBF 2 and PBF 3 (1,059 acres) would be downgraded to dispersal. These treatments would reduce the PBFs at the stand level and delay the development of these PBFs but the stands would also have a reduced risk of being lost due to fire or insects and disease. The life history needs for foraging and dispersing would still be met in these units." *FEA at 126*.

This is especially extra stark in the Barred Owls analysis as there was a massive regression from the DEA to the FEA. Based on best available science, Bark's DEA comments raised the concern that the DEA understated the adverse impacts to Spotted Owls from Barred Owl competition. *DEA comments at 39-41.* Instead of responding to these comments with additional analysis, the FEA tossed out almost the entire section on Barred Owl competition, including the DEA's acknowledgement that: "timber harvest

activities may expand the range of barred owls; and silviculture treatments that thin forests and create early seral habitat, or create edge habitat, may favor barred owls over spotted owls." *DEA at 218*. The FEA simply uses the first and the last sentence of the six-paragraph section and omits all the scientific references in between. What is happening here? Why *remove* the studies that disclose the wildlife specialists' reasoning? This is the opposite of a hard look.

c) Failure to take a hard look at impacts of landing placement and construction

As mentioned in DEA comments, to take a hard look at the environmental impacts of the CCTS, the FS must provide much more information about the proposed project itself, including an assessment of how much forest will be cleared for landings. In comments Bark requested the DEA answer the following questions: How many landings will be built? How many of each type: ground-based, skyline and helicopter? With what frequency? How much area will be cleared? How many landings will use existing cleared areas and how many will be new? How does this increase the overall impact of the project? How long will the landings persist on the landscape? In addition to answers for these questions, Bark requested a map of the proposed landing sites. None of this information was provided in the FEA. *See FEA at 38.* Without knowing how many hundreds of additional acres will be clearcut to create landings, it is impossible to accurately assess the impacts of this project.

d) Failure to take a hard look at impacts to snag dependent wildlife

As noted in Bark's DEA comments, standing dead trees (snags) are important resources for vertebrate and invertebrate species. Because of their importance to wildlife, the LRMP requires that wildlife trees be maintained to support 60% of maximum biological potential of cavity nesting species. *LRMP, FW-215.* As noted above, this standard is not currently met and the CCTS will move the project area further out of compliance.

While the DEA acknowledges that existing snags will be cut during harvest operations, temporary road construction, road decommissioning, road closure, and storm proofing due to safety considerations, it did not provide any estimate of how many snags will be lost or acknowledge that by logging trees that would otherwise die naturally and become snags, the proposed action will retard the FS from meeting its LRMP requirements for the foreseeable future. Bark requested that the FS provide a plan for increasing, not decreasing, the number of snags in the project area in the final assessment. Not only does the FEA fail to provide that requested information, it **omitted** the following charts from the DEA that detail how many *more* snags produce by the "no action" alternative:

Years After Treatment	QMD	# of Trees per Acre	Snags per Acre ≥12" DBH	Snags per Acre ≥24" DBH
0	8.4	755	2.0	<1
10	9.3	663	7.0	1.0
20	10.2	585	10.0	1.0
30	11	519	13.0	2.0
40	11.8	472	14.0	2.0
50	10.2	555	14.0	2.0
60	10.9	496	15.0	3.0
70	10.3	539	15.0	3.0
80	11.1	478	16.0	4.0
90	10.5	517	15.0	5.0
100	11.3	460	15.0	5.0

Table 88. Recruitment of Snags under the No Action Alternative Moist Mixed Conifer

Years After Treatment	QMD	# of Trees per Acre	Snags per Acre ≥12" DBH	Snags per Acre ≥24" DBH
0	6.6	1228	5.0	1.0
10	7.5	1124	7.0	1.0
20	8.3	1008	9.0	1.0
30	9.2	892	14.0	1.0
40	10.1	798	17.0	1.0
50	8.0	1034	20.0	2.0
60	9.1	842	26.0	3.0
70	8.7	899	25.0	4.0
80	9.8	742	26.0	5.0
90	9.5	755	25.0	6.0
100	10.6	630	25.0	6.0

Table 89. Recruitment of Snags under the Proposed Action Dry Mixed Conifer

Years After Treatment	QMD	# of Trees per Acre	Snags per Acre ≥12" DBH	Snags per Acre ≥24" DBH
0	11.6	140	2.0	<1
10	4.9	1105	3.0	1.0
20	5.7	1008	5.0	1.0
30	7.5	604	4.0	1.0
40	8.5	557	4.0	1.0
50	9	563	5.0	1.0
60	10.1	480	9.0	2.0
70	10.4	470	13.0	2.0
80	11.5	397	18.0	3.0
90	11.7	390	21.0	3.0
100	12.8	331	21.0	3.0

Table 90. Recruitment of Snags under the Proposed Action Moist Mixed Conifer

Years After Treatment	QMD	# of Trees per Acre	Snags per Acre ≥12" DBH	Snags per Acre ≥24" DBH
0	10.2	200	5.0	1.0
10	6.3	696	4.0	1.0
20	8.3	1008	9.0	1.0
30	6.4	1013	5.0	1.0
40	7.6	832	10.0	1.0
50	7.3	1023	12.0	1.0
60	8.6	747	16.0	2.0
70	8.7	767	16.0	3.0
80	10.0	590	19.0	4.0
90	10.0	598	20.0	4.0
100	11.4	476	20.0	4.0

Based on the snag analysis, the No Action alternative in recently unmanaged stands would recruit a greater number of snags over time in both habitat types compared to the Proposed Action alternative with the exception of small snags ≥12 inches DBH in the dry habitat type. This is due mainly to the creation of healthier stands under the proposed thinning which would become less susceptible to stress and disease-caused mortality.

Strangely, the FEA includes the following statement: While the Proposed Action Alternative would recruit fewer snags over time compared to the No Action Alternative, with the exception of small snags (≥12 inches dbh) in the dry-mixed conifer habitat type, *thinning would result in increased growth which would speed the ability of the stands to provide the size of snags and down wood needed to meet LRMP standard FW-215.* FEA at 133 (emphasis added). This is quite a stretch to make the "Proposed Action" appear beneficial for snag recruitment.

In addition to minimizing and mischaracterizing the proposed action's contribution to the continued snag deficit in the project area, the FEA fails to provide any meaningful analysis of what that long-term deficit means to snag dependent wildlife. First, the conclusion that "under the Proposed Action, the current conditions would remain unchanged," is factually inaccurate given that existing snags will be cut during harvest operations, temporary road construction, road decommissioning, road closure, and storm proofing due to safety considerations, as well as becoming more prone to falling after thinning. When an area is already below the LRMP standards for snags, **any** additional losses take on an increased significance.

Second, the FEA suggests that the amount of snags lost would not be measurable at the watershed scale, consistent with LRMP standard FW-216. Not only does this gloss over the project's non-compliance with FW-215, it misrepresents FW-216, which directs that at least 40% of the maximum biological potential of cavity nesting species shall be

maintained through time. If the analysis area (in this case, the watershed) is deficient in providing sufficient snags, projects *shall* compensate for the deficiency. *LRMP, FW-216.* Given that the current snags per acre within the White River Watershed are well under historic conditions, it is unlikely that the area is currently providing 40% biological potential. *See FEA at 125.* Approximately 50% of the White River Watershed contains no large snags in eastside mixed-conifer stands, and the remaining areas have far fewer than were historically present. *Id.*

Finally, the effects "analysis" does not actually contain any actual analysis about the impacts to snag dependent wildlife that will result from a further reduction of snags in the watershed for at least another 100 years. Which species depend on snags? How are they currently doing? And, as asked in DEA comments: in a landscape that is already denuded of snags, what would be the impact on snag dependent species during the time lag when there are even fewer snags in the forest than there are now?

e) Failure to take a hard look at OHV related impacts from increased access

The CCTS EA makes no attempt to respond to Bark's OHV-related concerns and recommendations. In particular, while the CCTS is under contract, roads constructed for the project could provide unregulated motorized access over the course of multiple years, as roads may be needed for more than one season. Bark requested a commitment from the agency to enforce effective barricades on roads built or rebuilt for this project when operations are not occurring. *This includes time when the area is still under contract but outside the normal operating season.*

Instead, the FEA took a much more limited approach with PDC 2.3.11: "Ensure temporary roads not associated with OHV trails are decommissioned to impassible conditions **when harvest activities are complete**." *FEA at 48.* As this timber sale may be logged for many years, this PDC provides inadequate assurance that OHVs will not use a the much-expanded road network, especially during the wet season when logging is not occurring and the impacts of OHV use will be greatest.

The final decision should mitigate potential risks associated with future road development by 1) firmly limiting construction of new roads; 2) ensuring controlled access during the project implementation; and 3) ensuring timely & secure road closure upon the project's completion.

f) Failure to take a hard look at climate change

In scoping comments, and again in DEA comments, Bark highlighted the importance of a detailed and site-specific analysis of the CCTS's impacts on the carbon cycle and climate change. *See DEA comments at 53-60.* The FS failed to do so – instead **again**

copying the Polallie Cooper climate change section word for word. *Compare Polallie Cooper EA at 310-311 with CCTS DEA at 324-325.*

In its Response to Comments, the FS asserts that "climate change is a global phenomenon" with the implication that any one project will not have an impact. However, climate change is the ultimate example of cumulative impacts, where thousands of small actions collectively contribute to this "global phenomena." Thus, the global scale of climate change does not absolve any individual project from assessing its specific impacts.

As extensively discussed in Bark's scoping and DEA comments, National Forests in the Cascade Range of Oregon play an extremely important role in regulating the carbon cycle. Just last week, researchers from Oregon State University & University of Idaho released a study suggesting that decreasing logging on National Forests in the Pacific Northwest is one of the top land use strategies to mitigate climate change.[26]

The study suggests that "Regional quantification of feasibility and effectiveness of forest strategies to mitigate climate change should integrate observations and mechanistic ecosystem process models with future climate, CO2, disturbances from fire, and management. Here, we demonstrate this approach in a high biomass region, and found that reforestation, afforestation, lengthened harvest cycles on private lands, and **restricting harvest on public lands** increased net ecosystem carbon balance by 56% by 2100, with the latter two actions contributing the most."[27]

Thus, local management decisions on MHNF *do* have a regional impact on climate change and the FS erred in not taking a hard look at this issue. At the very least, the DEA and FEA should have engaged with the extensive, site specific information provided in comments. Failure to do so renders this analysis inadequate.

X) INADEQUATE CUMULATIVE IMPACTS ANALYSIS

Bark raised the concern that the DEA did not contain an adequate analysis of the cumulative impacts of the CCTS, together with past, present and reasonably foreseeable future projects. Table 10 had a list of some such activities, but it is just that, a list. *DEA at 71*. It did not include date, size, acreage, impact, nor any information that would be useful for the public to assess the cumulative impact of the projects. Bark requested the FEA include a detailed and thorough assessment of projects that may have significant cumulative impacts with supporting data. *DEA comments at 6.* Instead of

[26] Law, B, et. al, March 19 2018, Land use strategies to mitigate climate change in carbon dense temperate forests, 2018, Proceedings of the National Academy of Sciences, www.pnas.org/cgi/doi/10.1073/pnas.1720064115.
[27] *Id.* at 1.

responding to this comment, the FEA contains the exact same list of project names. *FEA at 58*.

This mere listing is inadequate as each of the projects listed may have important, yet unexamined, overlaps with the CCTS. For example, in DEA comments, Bark noted that several proposed CCTS units overlap with the Bear Springs EA and have recently been thinned. While the FEA does not directly analyze the cumulative impact of the Bear Springs logging projects with CCTS, the Response to Comments states: "Previously entered stands would be evaluated for desired stand conditions and may not require re-entry thinning, but other aspects of the CCR Proposed Action may be needed to move the stand toward the desired future conditions." *RtC at 36.* This very general response is symptomatic of the lack of high-quality site specific analysis about the current status of the land, and the overlapping impacts of past, current and future projects. These should be determined *before* a final decision is made.

This is far from the first time that a NEPA analysis has failed to provide an adequate cumulative impacts analysis. As a result, there is an abundance of caselaw explaining why the CCTS analysis does not pass legal muster. Consider:

1) A proper consideration of the cumulative impacts of a project 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,* 361 F.3d at 1128(quoting *Neighbors of Cuddy Mountain v. United States Forest Serv.,* 137 F.3d 1372, 1379-80 (9th Cir.1998)).

2) A cumulative impacts 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, 992 (9th Cir. 2004).

3) "[S]ome quantified or detailed information is required. Without such information, neither the courts nor the public … can be assured that the [agency] provided the hard look that it is required to provide." Te-Moak Tribe of Western Shoshone v. U.S. Dep't of Interior 608 F.3d 592 (9th Cir. 2010) (citing *Neighbors of Cuddy Mountain*, 137 F.3d at 1379).

4) "The general rule under NEPA is that, in assessing cumulative effects, the agency must give a sufficiently detailed catalogue of past, present, and future projects, and provide adequate analysis about how these projects, and the differences

between the projects, are thought to have impacted the environment." *Cascadia Wildlands v. Bureau of Indian Affairs*, 801 F.3d 1105, 1111 (9th Cir. 2015).

5) "Consideration of cumulative impacts requires some quantified or detailed information that results in a useful analysis, even when the agency is preparing an EA and not an EIS." *Ctr. for Envtl. Law & Policy v. U.S. Bureau of Reclamation*, 655 F.3d 1000, 1007 (9th Cir. 2011).

While 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," (*Cascadia Wildlands*, 801 F.3d at 1111) this requires an accurate environmental baseline (notably missing in the current instance) and does not excuse the agency from providing **analysis** of the combined impact of present and reasonably foreseeable future projects.

The FEA does not reflect a hard look at the effects from proceeding with all of the anticipated projects and does not provide sufficient information to permit meaningful public scrutiny. The FS cannot simply offer a list of action, along with generalized conclusions. In *KS Wild v. BLM*, the court explained how mere numbers (which is more than the CCTS EA provided) are inadequate: "A calculation of the total number of acres to be harvested in the watershed is a necessary component of a cumulative effects analysis, but it is not a sufficient description of the actual environmental effects that can be expected from logging those acres." Also, "Moreover, while a tally of the total road construction anticipated in the watershed is definitely a good start to an adequate analysis, stating the total miles of roads to be constructed is similar to merely stating the sum of the acres to be harvested—it is not a description of *actual* environmental effects."

To take a hard look at cumulative impacts, the analysis must **identify** and **discuss** the impacts that will be caused by each additional project, including how the combination of those various impacts is expected to affect the environment, so as to provide a reasonably thorough assessment of the projects' cumulative impacts. In the CCTS EA, the FS provided no sense of additional acres logged, roads built, trails cleared, etc. from that "mere listing" of projects it claims to have considered. It is reasonable to assume that a 12,000 acre timber sale with 39 miles of road building will have significant cumulative impacts when viewed together with similarly situated and impactful projects.

XI) THIS PROJECT SHOULD BE ANALYZED IN AN ENVIRONMENTAL IMPACT STATMENT

Determining whether a project is "significant" under NEPA is admittedly a subjective task. The regulations do not provide hard and fast methods to quantify significance, but rather require agencies to evaluate a project's significance by analyzing the "context" and the "intensity" of the proposed action. 40 C.F.R. § 1508.27. The context of an action includes "society as a whole (human, national), the affected region, the affected interests, and the locality." Id. § 1508.27(a). The regulations also list ten, non-exclusive intensity factors. Id. § 1508.27(b); see *Cascadia Wildlands*, 937 F. Supp. 2d at 1280 n.10.

Importantly, the significant effect need not actually occur; it is sufficient to trigger the preparation of an EIS if a substantial question is raised "whether a project may have a significant effect on the environment." *Blue Mtns. Biodiversity Proj. v. Blackwood*, 161 F.3d 1208, 1212 (9th Cir. 1998). If an agency moves forward without issuing an EIS, it is the **burden of the agency** to provide a "convincing statement of reasons" to support why the proposed project is not significant; this explanation is critical in demonstrating that the agency took the requisite "hard look" at the potential effects of a project. *Cascadia Wildlands*, 937 F. Supp. 2d at 1280. An agency "cannot avoid preparing an EIS by making conclusory assertions that an activity will have only an insignificant impact on the environment." *Ocean Advocates v. U.S. Army Corps of Eng'rs*, 402 F.3d 846, 864 (9th Cir. 2004).

In this instance, MHNF's statement of reasons as to why the CCTS does not significantly impact the environment are not based in fact, or law, and are not convincing.

Intensity Factors:

#3: The effects on the quality of the human environment are likely to be highly controversial.

The Draft Decision Notice contains the following statement: "While there is some opposition to forest management, I have concluded that the science behind thinning and other vegetation management techniques is not highly controversial based on a review of the record that shows a thorough review of relevant scientific information. I have also taken into account that opposition to vegetation management and fuels treatment has been fully considered through documentation of the No Action Alternative." *DDN at 10.* This does not convince us that the decision maker considered all the relevant factors.

A proposal is highly controversial, mandating preparation of an EIS, when (1) "substantial questions are raised as to whether a project … may cause significant degradation of some human environmental factor;" or (2) there is "a substantial dispute [about] the size, nature, or effect of the major Federal action." *Nat'l Parks & Conservation*

Ass'n., 241 F.3d at 736. Mere public opposition to a proposal does not render it highly controversial. *Id.* Rather, "a substantial dispute exists when evidence, raised prior to the preparation of an EIS or FONSI casts serious doubt upon the reasonableness of an agency's conclusions." *Nat'l Parks & Conservation Ass'n v. Babbitt*, 241 F.3d 722, 736 (9th Cir. 2001). In other words, controversy is not about whether people disagree with the action, it's about whether there is controversy over the projected outcome of the action. When such a dispute exists, the burden is placed on the **agency** to "come forward with a 'well-reasoned explanation' demonstrating why those responses disputing the EA's conclusions 'do not suffice to create a public controversy based on potential environmental consequences.'" *Id.*

In the current instance, the controversy goes far beyond "opposition to forest management." As noted extensively above, the CCTS FEA failed to acknowledge **any** of the well-documented scientific uncertainty around the effectiveness of logging to affect future fire behavior, and the clear scientific opposition to logging large diameter trees and moist forests for the purpose of affecting fire behavior and logging mature forests to "improve" NSO habitat.

In that regard, CCTS is similar to *Oregon Wild v. BLM*, where the BLM proposed to remove 160 acres of "mature forest," defined as stands over 80 years old in NSO Critical Habitat (except, of course, CCTS would log more than 10 times the amount of mature forest). In finding that the BLM must prepare an EIS for its timber sale, Judge Aiken recognized the controversial nature of logging mature forests in NSO habitat: "The Recovery Plan, the critical habitat proposal, comments from the public and scientists . . .demonstrated the existence of 'a substantial dispute' casting 'serious doubt upon the reasonableness' of BLM's decision to harvest forest stands over 80 years old." The Court found that BLM's failure to acknowledge the "highly controversial" nature of that decision was arbitrary and capricious. *Oregon Wild v. Bureau of Land Mgt.*, 6:14-CV-0110-AA, 2015 WL 1190131 (D. Or. Mar. 14, 2015).

#6. The CCTS is likely to establish a precedent for future actions with significant effects because this action is unusual in and of itself.

The factor of "precedence" establishes significance of an action by showing that allowing this action would establish precedent for similar actions in the future. In this instance, the CCTS is a major departure from the timber sales and stewardship contracts that Bark has monitored over the past 15 years on MHNF. It is 10,000 acres larger than most other timber sales, it proposes to reinstate the previously disfavored practice of logging mature and old growth forests, it is the first sale to propose logging moist-mixed conifer forest for "fuels reduction" and it is the first use of the "Timber Pipeline" funds to attach regional funding to a specific volume target *before* planning even began. Each

of these factors establishes a new direction for forest management in MHNF. In that way, it is again similar to *Oregon Wild v. BLM*, where the court noted that while "[a]pproval of the White Castle Project will not have binding impact on future projects . . .it will, by design, shape BLM forestry methods and strategies moving forward." The court found that this supported requiring an EIS.

#7. The CCTS may result in significant cumulative effects.

As noted above, given the sparse information in the FEA, there is no way to assess the significance of the cumulative impacts of the incremental habitat loss on threatened owls or snag-dependent species from this project in light of habitat loss from many similar projects. However, it is reasonable to assume that a sufficient cumulative impacts analysis may have found significant impacts.

a) Significant cumulative impacts to snag dependent wildlife

As noted above, the project area, and surrounding watershed, are all currently below LRMP standards for minimum amount of snag retention, and far below historic levels. **When an area is already below the LRMP standards for snags, any additional loss takes on an increased significance.** There are numerous other projects that also result in a decreased number of snags in the area, such as the Bear Springs Timber Sale, that should have been specifically quantified and analyzed in conjunction with the CCTS. Instead, the cumulative impacts discussion about snag dependent species adopted a vague and general approach, extolling the future of larger green trees that may someday become snags, without ever acknowledging the immediate to long-term impacts of losing existing snags from the logging activities as well as removing thousands of trees that may otherwise die and provide snag habitat.

b) Significant cumulative impacts to NSO and Critical habitat

In addition to the ESA's prohibition on destruction or adverse modification of Critical Habitat, the rule that designated Critical Habitat in MHNF determined that **all** of the unoccupied and likely occupied areas in this subunit are **essential** for the conservation of the species to meet the recovery criterion. *DEA at 208.* There are approximately 58,397 acres of suitable habitat within ENC 7. Based on the amount of habitat and the average home range size for this Province, this subunit could potentially support up to 48 territories. Of these territories, 7 rely on habitat within the action area. *FEA at 119.*

As noted in DEA comments, the extremely vague and brief Cumulative Impacts Analysis about NSO Critical Habitat did not address the additional 2,899 acres of suitable and dispersal habitat lost in the same Critical Habitat unit because of other FS timber sales. While the Response to Comments suggested that these sales were not included because

the "analysis area for spotted owl includes the Crystal Clear Restoration project boundary and a 1.2 mile buffer to include any territories that may overlap," this is an insufficient area in which to determine cumulative impacts to a landscape-wide designation like Critical Habitat.

For example, if every timber sale in this Critical Habitat unit only assessed impacts to the Critical Habitat in its project area, it is likely that significant amounts of habitat could be lost without any analysis. This is exactly what a cumulative impacts analysis attempts to avoid. The court addressed this question of assessing cumulative impacts across a landscape scale in *Native Ecosystems Council v. Dombeck*. 304 F.3d 886 (9th Cir. 2002). In *Native Ecosytems*, the issue was a Forest Plan amendment to change road density standards, where the FS only assessed the impact on the area specifically affected by that amendment. The court disagreed with this approach, finding that "[u]nless the cumulative impacts of these amendments are subject to analysis *even though distantly spaced throughout the Forest*, the FS will be free to amend road density standards throughout the forest piecemeal, without ever having to evaluate the amendments' cumulative environmental impacts. NEPA does not permit this, but rather requires the assessment of the cumulative impact of 'individually minor but collectively significant actions taking place over a period of time.'." *Native Ecosystems*, 304 F.3d at 910, *citing* 40 C.F.R. § 1508.7 (2001).

The cumulative impacts section does little more than provide a vague reference to some (but not all) of the projects in the area, with no accounting for size of project, proximity to the proposed action, intensity of environmental impact, etc. These omissions render the cumulative impacts analysis for NSO inadequate, as does the unhelpfully vague conclusion that cumulative actions "have reduced the amount of suitable habitat on the landscape and will continue to do so into the future." *FEA at 134*.

#9. The CCTS may adversely affect threatened spotted owls and their Critical Habitat.

While the decision-maker asserts that the draft decision adheres to the guidance set forth in the Recovery Plan, objectors have consistently shown that it does not follow the best available science or comply with Recovery Actions 10 & 32.

Again, this sale is comparable to the White Castle Project in *Oregon Wild v. BLM* (though much, much larger). Like White Castle, the CCTS may not drive the NSO to the verge of extinction, but it would nonetheless have an adverse effect on the species. White Castle would remove 187 acres of forest, all or almost all of it designated critical habitat for the NSO and 153 acres of it suitable nesting, roosting and foraging habitat. CCTS would log

in 12,072 acres of critical habitat proposed for treatments, with approximately 2,148 acres providing dispersal habitat and 1,946 acres providing suitable habitat. *FEA at 118.* The project would downgrade 1,059 acres of suitable habitat to dispersal and remove 895 acres of dispersal habitat. In a context where the NSO is still in decline through most of its range, barred owl competition is high, and the Recovery Plan directs that *all* high-quality habitat be retained on the landscape, a project that removes almost 2,000 acres of suitable and dispersal habitat may well be significant.[28] At the very least, it requires more study in an EIS. *See Oregon Wild v. Bureau of Land Mgt.*, 6:14-CV-0110-AA, 2015 WL 1190131 (D. Or. Mar. 14, 2015).

XII) OBJECTION RESOLUTION

Many of these suggestions for resolution are carryovers from Bark & ABC's DEA comments and represent issues that the FS declined to address in its FEA. We hope that these suggestions find more fertile ground during the objection process and that this project can become one that truly restores the forest and makes communities more resilient to wildland fire.

1. Given the size and complexity of this project, prepare an Environmental Impact Statement which fully discloses its effect on the environment.
2. The FEA did not contain an adequate analysis of the cumulative impacts of the timber sale, in addition to past, present and reasonably foreseeable future projects. Complete a full cumulative impacts analysis.
3. Implement an 18 inch DBH diameter limit for this project.
4. Remove all units proposed for logging that are within FRCC 1, as they are within their natural fire regime cycle and do not need to be logged for ecological purposes.
5. Remove all proposed logging from areas within suitable or dispersal habitat for threatened owls.
6. Remove logging in stands already displaying or naturally on their way towards meeting the agency's "desired future conditions" of large diameter trees, well developed understory, snags and down woody debris, including 9, 9L, 104, 375, 447, 470, 471, 472, 473, 474, 475, 478, 479, 504, 505, 507, 508, 509, and 510, 3, 7, 8, 15, 33, 34, 38, 47, 52, 54, 70, 109, 144, 210, 219, 223, 331, 332, 383, 386, 390, 429, 445, 451, 456, 458, 33, 452, 122, 370, 422, 8L, 56, 110, 108, 1, 53, 379, 468, 301, 452, 104, 125, 35, 40, the northeast portion of 466, and 82.
7. Remove logging proposed in units within LSRs that already include large trees and other habitat needed by species dependent on old growth forests, including Units 3, 5, 7, 8L, 9L, and 458.

[28] The threatened Northern Spotted Owl, proposed for uplisting, is in steep decline, undergoing range contraction, and is at risk of extinction across its range." *ABC DEA comments at 9.*

8. Re-survey units in which Bark field researchers found Survey & Manage species and maps buffers for all sensitive species.
9. Complete a full review of this project's relationship to climate change and carbon storage.
10. Reduce road density in the CCTS area to meet LRMP standards though active road decommissioning, closures, and road-to-trail conversions.
11. Reduce OHV impacts on the forest by limiting road construction and closing all temporary routes between logging seasons and after the project is complete.

Thank you,

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/s/ Steve Holmer

American Bird Conservancy