From: McKay, Doug- FS, HEPPNER, OR
To: Taylor, Leslie -FS
Subject: FW: [External Email]Blue Mountains Biodiversity Project comments re: Ellis DEIS
Date: Monday, April 25, 2022 4:04:49 PM
Attachments: Ellis DEIS Comments.docx

Comments from Karen.

From: Karen Coulter <[redacted]>
Sent: Monday, April 18, 2022 11:42 AM
To: McKay, Doug- FS, HEPPNER, OR <Douglas.Mckay@usda.gov>
Subject: [External Email]Blue Mountains Biodiversity Project comments re: Ellis DEIS

Dear Doug McKay,

I often have trouble submitting our comments via the project website, so I am sending them directly to you. These are only the typed comments. I am also mailing the typed comments, our handwritten comments, and copies of our field survey sheets and sample photographs from our field surveying of commercial sale units in the Ellis timber sale/project today. All of these materials are part of our comments on the Ellis Integrated Vegetation Project Draft Environmental Impact Statement.

Thank you for your consideration of our comments.

For the Wild, Karen Coulter, Director,
Blue Mountains Biodiversity Project

Blue Mountains Biodiversity Project comments on the

Ellis Integrated Vegetation Project Draft Environmental Impact Statement

To: Doug McKay, Heppner District Ranger, P.O. Box 7, Heppner, OR 97836

From: Karen Coulter, [redacted]

Summary:

We appreciate that Alternative 3 focuses management in dry forest types (due to fire suppression effects to more open dry forest stands) and emphasizes preservation of old forest structure by not logging old growth and large trees, and not logging within moist mixed conifer old growth. Moist mixed conifer forest types are naturally more productive, usually from greater water retention at high elevations, on north to northeast slopes, along riparian areas and/or on ash soils. Retention of moisture is critical—especially with record-breaking heat waves and increased drought. Logging and biomass reduction reduce moisture retention.

"Relevant Issues" listed on p. i that are included in our concerns include: Relevant Issues # 1, 2, 4, 5, 6, 7, and 8 (all but #3). The scope and scale of the proposed timber sale should be further reduced from what is proposed for alternative 3. We support more road closures and especially more road decommissioning than that proposed for alternatives 3 and 4.

Some of our key recommendations: Drop all planned commercial logging and mechanical biomass reduction in Old Forest Single Stratum (OFSS), Old Forest Multi-Strata (OFMS), and cold and moist forest types. Retain existing higher tree density for hiding and thermal cover in elk use areas, which includes the north half of the sale area, denser forest cover adjacent to streams and wet meadows, and elk calving areas. Drop all management in the Potamus Inventoried Roadless Area except non-commercial thinning by hand only up to 9" dbh immediately adjacent to the access road (within 50 feet of the road) only if really needed. Drop all "temporary" road construction. Drop re-opening of closed roads that were closed for environmental protection reasons, effectively blocked, over-grown, or are redundant or unnecessary. Drop all prescribed burning in moist and cold forest types. Don't commercially log along the Scenic Byway (or within view of the Scenic Byway). Restrict biomass ("fuel") reduction and "fuel breaks" to non-commercial thinning by hand only up to 9" dbh and/or prescribed burning along roads or private property, with such "fuel" breaks limited to 50 to 100 feet at the most. Rationales for these recommendations and more appear in our comments on effects analysis.

We prefer "No Action" to any of the action alternatives, although alternative 3 is closest to meeting our concerns. Alternative 3 would still need to be scaled down, including by eliminating commercial logging and any road re-opening or road construction in all undeveloped lands, and by narrowing the width of proposed fuel breaks or biomass reduction (the "Lower Intensity" zone) to about 50-100 feet in width on either side of the road, depending on the height of trees adjacent to the road that could fall into the road. This biomass reduction or "fuel" breaks should only be used adjacent to the most major access roads, such as rd. 53 (which already has recently established "fuel" breaks), rd. 21, and rd. 2105. Planned logging of suitable habitat for American marten in alt. 3 would need to be dropped, along with most of the planned logging in Pileated woodpecker source habitat.

Commercial logging and road re-opening or construction does not "emphasize" or "support" "forest health and resilience" as claimed, instead reducing forest resiliency and increasing wildfire intensity,

insect epidemics, and the spread of tree diseases and invasive plants. All of these effects impair forest "health".

Based on the historic deficit in large and old tree structure due to past intensive logging of large and old trees, and based on our extensive field surveying of the sale units proposed for commercial logging, there is no situation in the Ellis timber sale (aka "project") area in which logging large trees >/= 21"dbh would meet any of the requirements listed for large tree logging under Alternative 5, including promoting "suitable stand densities, species composition, and [to] enhance and maintain old forest structure"! (DEIS p. ii, par.1)

By Umatilla National Forest Plan definition, large trees are needed to "enhance and maintain old forest structure." Large trees are older than the smaller trees and represent what historically grew in the stands regarding tree species composition and stand densities. Large trees are at a severe deficit compared to historic conditions in this area and across eastern Oregon at a landscape scale. There are no "excess" large trees. This includes firs. There are many big fir stumps as well as residual big legacy old firs, including huge old growth fir logs and old growth fir snags—especially in moister mixed conifer.

We appreciate and support the scaling down of the planned commercial logging between the scoping period and the DEIS release. We think that alternative 3 is the most protective of the action alternatives for wildlife, soils, biodiversity of plants, carbon storage and sequestration to reduce or slow climate change effects, and recreational and cultural use values, and that alternative 3 could be a <u>starting</u> point for negotiations with the Forest Service. That said, we believe that all mature and old growth forest cover should be protected from logging for carbon storage and sequestration to reduce extreme climate change effects from global warming which threaten to end the viability of our planet by accelerating species' extinctions and ecological collapse. Human civilization is not likely to survive global warming of 2 to 4 degrees Celsius, which is the current range of temperature rise without drastic reductions immediately in Greenhouse gases and preservation of natural carbon sinks, including forests and soils.

We support "No Action" over all the action alternatives, as the area is already greatly degraded by past logging, including a great deficit in large and old tree structure. See our enclosed survey sheets and photographs from our field surveying of almost all commercial sale units in the Ellis sale as part of our comments. Our survey sheets include recommendations as to which sale units should be dropped or just non-commercially thinned up to 9" dbh by hand. The survey sheets and photographs describe and illustrate the reasons for our recommendations.

We support road density reduction to 1.5 miles per square mile, or ideally to less than 1 mile per square mile to support Gray wolf recovery. Rocky Mountain elk need sufficient hiding and thermal cover, not just road closures.

Chapter 1: Purpose and Need:

Contrary to the stated purpose and need, commercial logging would not be reducing "overstocked" stands, as tree density is mostly non-commercial size, and would degrade ecosystem health and resiliency.

NEPA requires detailed analysis of issues <u>within</u> the EIS, not just in the project planning record reports. The forcing of the public to find the relevant analysis in the whole project record elsewhere is a violation of NEPA—especially as not everyone has ready access to the internet, including myself for most of the year, and many others in rural eastern Oregon. Further, the public is expected to find the analysis in the EIS, as required, and does not often have the time to search for the missing information. The public also has no way of knowing what is left out of the EIS analysis and how significant that information might be.

Actually, since the whole Ellis sale area has been logged multiple times, with few exceptions, like the Potamus IRA, there is no "excess" density of trees larger than about 6-10" dbh, with the few exceptions being in over-planted dry Ponderosa pine plantations. Commercial logging is not needed to effectively reduce stand density across the sale area. Re: Figure 1-1 on DEIS p. 1: This 1935 to 2019 photograph comparison could be misleading based on recent wild fire or heavy logging in the area prior to 1935. 1935 does not represent an historic baseline prior to commercial logging in the region. Further, there are natural variations in climatic conditions, including moister conditions since about the 1950's. Note that the trees in the 1935 photograph appear to be mostly young.

The problem with standard purpose and need and overall objective statements for yet another landscape scale, intense management timber sale, is that the Forest Service has failed to evaluate the ecological consequences of these repeated similar timber sales, and is still following outdated Forest Plans and "desired future conditions." The Forest Service is not keeping up with current science or rapidly changing conditions and needs related to extreme climate change effects. If the Forest Service was comprehensively field surveying the effects of past timber sales (as we are), they would see that repeating the same so-called management "prescriptions" will not reduce forest vulnerability to insects, disease, and wildfire (the agency's rubber-stamping rationale), but is increasing the forest's vulnerability to these natural disturbances. Typical timber sales and biomass reduction greatly impair soil productivity, drying out the forest and increasing flammability by reducing mature and large more fire-resistant trees, and stimulating dense re-growth of small, young trees, reducing biodiversity, and increasing insect epidemics by leaving homogenous stands.

Natural disturbances should not be reduced or suppressed, as they are key to maintaining functional ecosystems and biodiversity. Staying within a theoretical Historical Range of Variability (HRV) is a bogus reason to log and road the forest to death.

In response to Table 1-1, Purpose and Needs identified for the Ellis Project area, DEIS p. 2:

All of these purposes can be met just with non-commercial thinning of small trees up to about 9" dbh and by prescribed burning in the drier forest types. Logging and roading increase the introduction and spread of exotic invasive plants. Most logging reduces wildlife diversity—especially in moister and cold forest types. Cattle over-grazing needs to be stopped in all the riparian areas; this is a big problem throughout the Ellis project area. There is already too much hunting in the Ellis area. The elk population appears to have decreased sharply over the past 30 years in the Ellis area. This was predictable due to the over-hunting of mature and large bull elk for trophies and the skewed ration of mature bulls to elk cows of about 1: 150. Higher elevation forest naturally has more stand replacement fire; this is not "uncharacteristically severe". "Fuel" breaks in ingress and egress routes are already implemented all along the Scenic Byway, road 53. There's been way too much recent logging in this sale area over the last 30 years. We field surveyed most of those sales and were involved in negotiations to scale them down in size and logging intensity.

Some of the "Purpose" statements in Table 1-1 are simply not true, showing the lack of institutional history knowledge on the Districts now. For example, there's way too much hunting-related decline in the elk population over the last 30 years in the Ellis area. There needs to be less hunting, not more visibility of elk for hunters. Elk need more good security cover and less roads. There's recently implemented "fuel" breaks all along the Scenic Byway (FS rd. 53) already and all around the Penland Lake residents and campground. We field surveyed the proposed Penland Lake fuel breaks and negotiated with the Forest Service to increase safety but not at so much expense to Forest values. Timber sale production has not been completely "stagnant or in decline" over the last 30 years, as we've field

surveyed and negotiated multiple timber sales within the Ellis area within the last 30 years, as well as adjacent or nearly adjacent timber sales. These include the East End sale, the West end sale, the Penland Lake fuel reduction sale, and a number of others which may only partially overlap the Ellis sale or be adjacent to it, including the Sunflower-Bacon sale, hazard tree logging along rd. 21, and a "Rimrock" timber sale named for a ridgeline.

Any "deviation from the natural of variability for forest density, composition and structure" contributing to "forest health" problems is likely due to all the past logging in this area, as well as severe livestock over-grazing—especially in riparian areas. These "deviations" are due to Forest Service mismanagement that the agency would repeat now through landscape scale and high intensity logging, re-opening of closed roads, building of "temporary" roads, and use of heavy equipment on a landscape scale. The "desired condition" mainly opens up the Forest in a way that dries it out and reduces too much forest cover needed for water retention and wildlife habitat, and also eliminates most mature forest structure—live, snags, and logs. This has the overall effect of creating homogenous conditions in stands, greatly reducing wildlife and plant diversity, and greatly reducing forest carbon storage and sequestration just when it's more critical to retain than ever. All the proposed management actions are seen as needed or based on degraded conditions from past and ongoing similar mismanagement. The forest doesn't need the Forest Service to keep repeating past management impact mistakes.

It's a form of Forest Service blackmail to only offer significant reduction of road density for elk and other wildlife species in the alternative (5) that would log and eliminate most elk hiding and thermal cover (needed security cover) and other wildlife habitat. This is all too common and unacceptable as a trade-off, especially as the most acceptable alternative (3) which still needs changes as discussed above, is connected to the least amount of road closures and no road decommissioning. There are other restoration-oriented funding sources that could be tapped to do more road closures and decommissioning rather than cynically tying these to timber sale revenues—such as Biden's new funding package for the Forest Service.

Issues and Concerns Derived from Public Comments:

There should be only non-commercial thinning up to 9" dbh and /or prescribed burning (in drier forest types) in the "Low Intensity Zone" and "Ember Reduction Zone" areas, not commercial logging up to 21" dbh. We are opposed to prescribed burning in cool moist forest types—especially in old growth habitat suitable for Pileated woodpecker and/or American marten. We support the reduction of the "Low Intensity Zone" as under Alternative 3, with no Ember Reduction Zone biomass reduction ("fuel" break), but with more narrow bands of "fuel" breaks and smaller "Low Intensity Zones", which should only be 50-100 feet at the most, related to tree height for trees that could fall into the road. Road 53, the Scenic Byway, already has recently implemented fuel breaks. Any biomass reduction for fuel breaks should only be done along the most major access and egress roads, such as roads 53, 21, and 2103 and 2105. We are not attached to having these biomass reduction fuel breaks implemented at all, as they are unlikely to be effective for very long.

The only action alternative that really responds to our concerns about the impacts of proposed commercial logging and mechanical biomass removal in old growth or LOS forest structure and in cold and cool moist forest types is alternative 3, by dropping mechanical management (including commercial logging) within OFSS and OFMS and in moist and cold forest types. However at ¼ mile radius from human infrastructure and in-holdings, the "LIZ" thinning is excessive. It should only be about a 100 foot radius.

The DEIS is inconsistent and misleading in that (for example) on one page (p. 5), claims that alt. 3 removes mechanical treatment from Old Forest Multi-Strata and from Old Forest Single-Stratum, while on the next page, in Table 1-2, alt. 3 would still log up to 20" dbh in 4,587 acres of OFMS and 564 acres of OFSS. This is a huge discrepancy, changing my comments from one page to the next. Which is it? Hundreds of acres in OFSS and thousands of acres in OFMS of commercial logging up to 20" dbh under alt. 3, or no commercial logging in OFSS and OFMS under alternative 3? We are opposed to all commercial size logging in Old Forest Multi-Strata and Old Forest Single-Stratum, and in moist and cold forest types.

How would OFSS legitimately be logged commercially under the Forest Plan, when it is below HRV? See DEIS p. 10, 1st sentence. Likewise, there is significant discrepancy between Table 1-2 on DEIS p. 6 re: acknowledgement that alt. 2 and all the other action alternatives would log hundreds of acres of OFSS (337 to 597 acres), while p. 10, 1st sentence, obliquely recognizes that no commercial logging should occur (the wording is "would occur") in OFSS, based on the project area being under Scenario A of the Eastside Screens. Again, which is it? Is the Forest Service planning to violate the Forest Plan by commercially logging in OFSS despite the project area being under Scenario A of the Eastside Screens, as portrayed in Table 1-2, p. 6, or to not log in OFSS in accordance with the Forest Plan, as on p. 10?

The 13 miles of road decommissioning should be retained to benefit fish habitat and water quality under all action alternatives, including alt. 4 and alt. 3. This seems like blatant blackmail targeted at environmental advocates. We support retaining small road segments for access to established dispersed camping sites along major roads—especially rd. 53. However road closures and decommissioning should be prioritized for all roads within RHCAs, on steep slopes, in good elk security habitat, and for redundant roads, eroding roads, and ecologically damaging roads in general. Road closures and decommissioning should not be tied to commercial logging revenue. There are other funds available for aquatic restoration and possibly for elk security and other road decommissioning through restoration ear-marked federal funds and potential public-private partnerships with interested groups such as the Rocky Mountain Elk Foundation.

We support No Action or alternative 3 re: the Potamus IRA—prescribed fire only.

Re: Relevant Issue # 4, logging to low basal areas on a landscape scale will not improve elk habitat and distribution, but drive more elk onto private lands and allow more elk to be killed during hunting season due to lack of adequate forest security cover. We are strongly opposed to any commercial logging of identified wildlife connectivity corridors or of good elk habitat, which is mostly concentrated in moist mixed conifer and cold Lodgepole pine stands.

The DEIS seems to lack a lot of critical information usually provided in EISes, such as disclosure of Management Areas, MA goals, and how these would be affected by the action alternatives re: wildlife, fish, water quality, etc.

We support no "temporary" road construction, as in alternative 3.

There is no justifiable need to do "fuel treatments" (biomass removal) up to 300 feet in cold and moist forest types under alternative 3.

Drop the emphasis on canopy "fuel loadings", which don't affect fire severity or spread nearly as much as surface and ladder fine "fuels".

We support no further fuel break or commercial logging along the Scenic Byway (and no commercial sale units within sight of the Scenic Byway.) Most of that area already has a significant (and ugly) recently established fuel break, which already degrades scenic values.

Chapter 2: Alternatives:

It's rather suspect that the DEIS fails to disclose Umatilla Forest Plan requirements, including any specific goals, objectives, and standards, of designated Management Areas, which is a standard disclosure across the region for EAs and EISes. This is especially questionable as the Forest Service mentions "limitations that were identified in a review of the Umatilla Forest Plan and management area standards and guidelines" (DEIS p. 9, 1st bullet point under "Alternative 2") that changed management for specific areas, but then failed to disclose these Forest Plan limitations and the Forest Plan Management Area standards and guidelines and how these would be met. There are apparently only a few exceptions to this critical information disclosure failure, such as regarding elk and recreation, which still may not be specific enough regarding specific MA standards and guidelines. Even the references to the "A1" management area changes fail to define "A1" and its limitations. For example, reference to "the trail" on DEIS p. 9 without naming the trail or describing the purpose and nature of the "A1 Management Area", which is also not in the glossary. While we support scaling down the management planned in general, the DEIS is so stream-lined that it fails to fully inform the reader as to the legal requirements governing the project/timber sale. The DEIS seems like it was written in haste by staff who are largely unfamiliar with the project area and the Umatilla Forest Plan—despite considerable delay between the scoping period and the DEIS release.

Alternative 5 is not legal in planning to log large trees >/= 21" dbh in violation of the Eastside Screens and the Forest Plan since logging large trees was not disclosed or analyzed during scoping. As the DEIS admits, "During scoping, the proposed action did not state if proposed mechanical treatments would cut live trees greater than 21 inches in diameter at breast height. Alternative 2 will be consistent with [the] Forest Plan as amended by the 1995 Interim Management Direction Establishing Wildlife, Ecosystem, and Riparian Standards for Timber Sales (Eastside Screens, amended in January 2021)." (DEIS p. 9, 1st bullet point in the last par.) In other words, this is an oblique reference to alternative 5 planned logging of large trees not being legitimate since the scoping information given to the public did not raise the issue of potentially logging large trees, denying them the opportunity to comment on potential logging of large trees during the scoping period.

Another clarification: "The project is consistent with Blue Mountains Project Design Criteria (PDC) for riparian habitat conservation areas (RHCAs); except where aspen or meadow enhancement treatments require mechanical or ground-based equipment (see Table 2-2)." (DEIS p. 9, 2nd bullet point in the last par.) This is an admission that the alternatives that involve mechanical or ground-based equipment in aspen or meadow enhancement "treatments" are not consistent with Blue Mountains Project Design Criteria for RHCAs. We are opposed to the use of mechanical or ground-based equipment within RHCAs, including within aspen and meadow RHCAs.

The most dominant trees (or largest size class) within all stands should be retained—including the largest size classes of the stands between 15-21" dbh "to maintain a larger tree component on the landscape and provide valuable wildlife habitat, fire resistance, structural diversity, and large persistent snags" (DEIS p. 10) and logs, and carbon sequestration and storage, not just under alternative 2. This is critical to preserve across the entire sale area. Without retaining the largest size class of trees in all stands, the purpose and need of improving "ecosystem health and enhancing landscape resiliency" by maintaining diversity will not be met.

Planned logging of OFSS under all action alternatives is in violation of the Forest Plan, as shown in Table 1-2, DEIS p. 6, and on DEIS p. 10, first par.)

The Forest Service needs to stop converting mixed conifer forest to primarily Ponderosa pine on behalf of the timber industry.

30 to 80 square feet of basal area retention for warm, dry forest, and down to 25 square feet of basal area in hot, dry forest, does not mimic historic basal areas since there used to be many more large trees. Such low basal areas also fail to allow for development of enough snags and logs, large trees, and forest cover for wildlife, carbon sequestration and storage, water retention, and recreational and cultural uses. We are strongly opposed to the outdated "shelterwood" and "seed tree" virtual clearcuts, which do not create greater forest resiliency and have no science support for ecological benefits. We are opposed to commercial logging (again!) the cold and cool moist forest types at all, let alone down to as low as 10 square feet of basal area for cold forest and down to only 20 square feet of basal area for cool moist forest.

We oppose logging so many mature and largest size classes of trees that planting would be used—presumably to shift tree species composition to mostly Ponderosa pine and/or Western larch. Planting of Ponderosa pine and Western larch is unnecessary in this sale area if enough of these species already present are retained. The low basal areas, seed tree and shelterwood virtual clearcutting ("potential regeneration harvest", DEIS p. 10, and "regeneration treatments" [i.e. clearcutting], DEIS p. 11), and planting timber industry preferred tree species are all about converting the forest to Ponderosa pine/Western larch plantations, which tend to be virtually biologically sterile. This is an outdated agency goal catering to the timber industry at the expense of wildlife, biodiversity, soil integrity, carbon sequestration and storage, and recreational and cultural use values. Forests do not "need" "regeneration treatments" (clearcutting or virtual clearcutting) for forest health.

Powell 1999 is severely outdated and overused to falsely rationalize very low basal area retention "at the lower end of recommended management zones" by characterizing natural disturbances as threats ("existing or impending threats from insects and disease", DEIS p. 10), rather than as forest self-thinning and habitat niche creation through variable density. The Forest Service is constantly trying to work against natural processes rather than working with Nature and learning from Nature. It is not "necessary" to plant trees, as this is based on removing too many trees of all sizes and leaving only 10 to 50 square feet of basal area per acre in the stand. (See DEIS p. 10) Natural regeneration is preferable for vigorous and diverse regeneration to planting. Planting can be unsuccessful or end up being over-planted to compensate, creating yet another pretext for more biomass reduction and logging later. Natural regeneration also tends to produce more variable density than uniform planting.

We support forest being retained at current canopy closure conditions for cold and cool moist forest types, with no commercial logging there. These forest types also represent the best elk, marten, Pileated woodpecker, and Northern goshawk and Cooper's hawk habitat available.

Regarding aspen stand and meadow "enhancement" using ground-based equipment: How would conifers be determined to be "encroaching" in aspen stand areas and meadows? There are naturally some conifers in these areas. Leaving the largest conifers in an aspen stand can triple the wildlife diversity in the stand. There should be no ground-based equipment used within any RHCA, with no exceptions. 150 feet out from all sides of the aspen stand for logging most conifers is arbitrary and excessive compared to other aspen restoration plans used by the Forest Service. On the Deschutes National Forest, soil is tested to determine the historical extent of the aspen stand to determine the appropriate footprint for restoration. This is a scientific way to restore historic aspen stands, which leave a foot print of deep, dark, loamy soil

from up to a thousand years or more of deciduous leaf fall. On the Malheur National Forest, site-specific characteristics are taken into consideration, as aspen are most affected by loss or access to sun. Therefore, further conifer removals boundaries are extended to the south, with a much shorter distance (if at all) to the north, and less to the east and west unless that is the riparian drainage orientation—but these two directions would still have less conifer removal than to the south. 150 feet of conifer removal on all sides is just a commercial timber grab, not legitimate aspen restoration based on the science.

Trees spaced up 18-20 feet apart, as in the planned Ember Reduction Zone, is a very unnatural and unsightly result. Trees naturally grow in groups and communicate with each other, sharing nutrients and carbon through underground mycelium networks. Such tree proximity allows for greater forest vitality and resilience to insect outbreaks and other sources of stress. (See Suzanne Simard's controlled experiments since about 1997.)

Shrub-steppe "enhancement" can also be a timber grab scam if it removes too many conifers for replacement of historic old growth (e.g. Ponderosa pine and Western juniper) or if it is implemented in natural juniper woodland. There are no specifics given in the analysis as to how it would be determined that a certain amount or species of conifer would be "encroaching".

We want a definite upper limit of 9" dbh for small diameter thinning, not just "primarily" removing trees being felled (regarding fire hazard), the small trees should be just lopped and scattered or chipped and left as a soil amendment. Don't create big biomass piles in the middle of or adjacent to green forest if there's no certainty these piles would be bought as biomass. The big biomass piles create a long-term, highly flammable fire hazard worse than small live trees.

It's highly unnatural, expensive, and unnecessary to prune trees for a full ¼ mile out from private inholdings and infrastructure. Only prune lower limbs of trees within about 50 feet of the inholdings and infrastructure. Protection of inholdings with defensible space should be limited to occupied residences and infrastructure in publicly used campgrounds and work centers.

Drop landscape burning in cool moist and cold forest types for water retention and wildlife habitat needs.

All large trees are desirable, not just Ponderosa pine, Western larch, and Douglas fir. Stop catering to the timber industry and stop carbon loss instead, so that we can retain a viable planet. (See footnote 2 on DEIS p. 12)

Leave all felled trees as logs or as trees girdled as snags in RHCAs. We support hydrologic function improvement of stream channels in or near wet meadows, based on best available riparian and aquatic restoration science.

Avoid machine piling and jackpot burning for "fuel" (biomass) reduction, as it is more likely to sterilize soils and cause more ground disturbance and invasive exotic plant introduction and dispersal.

Drop planned "fuel treatment" within aspen stands, as aspen stands are often in wet meadows or along streams that benefit from down wood (in RHCAs) and down wood helps keep cattle out of an expanding perimeter of aspen sprouts needed for regeneration and viability of the clone. Prioritize fencing out cattle in larger perimeters than core live aspen stands. The size of the exclosure should be based on the historic extent of the aspen stand, based on soil type and on the aspects facing out from the aspen stand. The aspen are most likely to regenerate along a drainage or surrounding a water source like a spring, not out 150 feet on each side, as is planned for conifer removal. The furthest perimeter out from the aspen stand should be only a maximum of 100 feet unless there are multiple historic aspen clones along a drainage, in

which case the conifer thinning should extend in the directions of the drainage to cover the historic area of the aspen stands. There should be no large conifers felled in or removed from aspen stands.

All water sources except livestock troughs that are away from a spring or stream should be fenced off to cattle. Spring and stream water retention and sustainability based on INFISH and PACFISH Riparian Management Objectives need to be prioritized over cattle, who are systematically destroying the riparian areas—especially streams and springs—throughout the Ellis project area.

See our enclosed field survey sheets and photo samples regarding cattle over-grazing and riparian area damage by cattle, as well as for tree species composition and forest structure data and wildlife sign, as part of our comments.

Recreationists do not want to see "vistas" of widespread commercial logging along the Scenic Byway! A defining aesthetic value of the Scenic Byway is views of denser moist mixed conifer forest and drier Ponderosa pine/Douglas fir stands with large trees, not clearcuts, virtual clearcuts, "fuel breaks", or other logging.

Regarding road management, there should be no use of existing closed or decommissioned roadbeds as "temporary" roads and definitely no building of new "temporary" roads. There are far too many road miles in the project area already. So-called "temporary" roads are usually not fully decommissioned and are used again in the next timber sale as proposed in the Ellis DEIS as "temporary roads on existing roadbeds", making them de facto system roads. "Temporary" roads impair riparian functioning, fragment wildlife habitat, and allow access to livestock, ATVs, illegal firewood cutting, fur trapping, and introduction and dispersal of exotic invasive plants, which leads to more poisoning of soils, water, and native plants by toxic herbicide use.

The DEIS in this section fails to disclose the planned miles of re-opening of closed roads. We are opposed to re-opening closed roads that were closed due to ecological damage, the need for greater wildlife security, or the need to reduce road density. We are opposed to re-opening closed roads that are causing ecological damage, reducing wildlife security, or are overgrown or redundant. There should be more road mileage fully decommissioned and far fewer closed roads re-opened.

Changes to alternative 3 should include a much narrower "Low Intensity" zone, no commercial logging in designated wildlife corridors (not clarified in this section of the DEIS and not addressed in a section on effects to wildlife corridors, as is standard in regional EISes), and more road decommissioning and road closures for elk security and for fewer impacts from roads, such as sedimentation of streams. There should be a broader, higher basal area retention range for commercial logging in dry forest types of at least 40 square feet of basal area to 100 sq. ft. of ba+ to allow for old growth stands and greater development of large trees, snags, and logs.

There should be no allowance for lower basal area retention for so-called "sanitation" or "salvage" cuts. Virtual clearcuts do not reduce future insect infestations or disease. Logging is known to spread root rot and mistletoe. Virtual clearcutting creates homogenous young stands that are more susceptible to insect epidemics and disease. Virtual clearcutting to very low basal area does not support forest resiliency or health.

Planned 300 foot roadside "fuel" reduction should not include commercial logging (>9" dbh) or hazard tree removal or felling beyond the roadside hazard tree height that could actually fall well within the road—more like a 50-100 foot width in from the road. A 300 foot hazard tree zone is not consistent with guidance from the Forest Service's "Danger Tree" identification manual.

We are opposed to logging in cold and cool moist mixed conifer forest. "Low Intensity" zones log all the way down to only 10 to 20 square feet of basal area retention. We support the alternative 3 reduction of small diameter mechanical thinning, only hand thinning of small trees <9" dbh in OFSS and OFMS and in cold and moist forest types, and not using hand thinning in RHCAs outside the LIZ. However, the benefits of small trees in RHCAs need to be considered and balanced against theoretical fire reduction, such as providing hiding cover for wildlife, holding slopes and streambanks, and providing shading to streams, and contributing to wildlife habitat, including for Neotropical migratory songbirds (which are not analyzed for effects in this DEIS, contrary to standard EIS inclusion of this issue across the region), and for beavers. All riparian hardwoods should be protected from logging impacts and mechanical thinning.

Close more roads and decommission more roads under alternative 3. There is often restoration funding separate from timber sale revenue that could be used to increase road closures and decommissioning of ecologically damaging roads.

The DEIS does not clarify specifically how basal area retention levels would be adjusted based on "species composition, stand age and size classes, soils, and desired future conditions." From our perspective, greater stand density should be retained on: more productive soils, in riparian areas, on steep slopes and north to northeast aspect slopes, and in moist hollows or where there is evidence of old growth fir, including at higher elevations and on ashy soils. (See DEIS p. 15, 4th par.)

There should be no commercial logging in the Potamus Inventoried Roadless Area or in any other never logged area (see our survey sheets) under alternative 3 or any other action alternative. Logging in the IRA would be contrary to the Roadless Area Rule. We also oppose non-commercial thinning in the IRA as unnecessary over-management. IRAs and never logged areas are the best natural habitat for wildlife and maintain reference conditions for study and by which to judge the effects of management elsewhere in similar ecological settings.

We are strongly opposed to alternative 4 (and 2 and 5) logging in OFMS to convert these stands to OFSS and to emphasize logging in the excessively large and contiguous "Ember Reduction Zone" (ERZ)—primarily in moist mixed conifer forest. The ERZ and Low Intensity Zone roadside fuel breaks would destroy an astoundingly huge block of forest.

For the Ellis sale, the Forest Service has a very strange concept of what constitutes elk security habitat, as elk are well documented to select for denser forest cover, not comprehensively logged areas. Any elk hunter could tell you that. Logging down to only 30 to 80 square feet of basal area does not provide or retain suitable elk habitat. Nor would logging down to only 10-90 sq. ft. of basal area in cold forest types and only 20-100 square feet basal area for cool moist forest provide sufficient cover for elk security habitat. Elk are unlikely to use areas with much less hiding and thermal cover than current conditions and are likely to be even more displaced onto private lands. If they survived the increased exposure to hunters, they would be an increasing economic strain on local ranchers. Converting so much current elk habitat in the northern ERZ area to only 30 to 80 square feet of basal area is contrary to the purpose and need of providing more elk security and reducing their displacement to private lands. This alone (and other inconsistencies with the purpose and need and Forest Plan goals) should rule out adoption of alternatives 2, 4, and 5.

17,449 acres of roadside logging (which actually would extend up to a mile and a half from the road, intersecting with other "fuel" breaks to form huge contiguous blocks) is the equivalent of a large entire timber sale elsewhere. This seems like a scam to increase commercial logging that is not backed by the majority of the science. Closing and decommissioning more roads (and not re-opening closed roads and

building new roads) would prevent the expense of endlessly maintaining fuel breaks along190 miles of roads and trails.

Alternative 2 would log up to 20" dbh in the ERZ, meaning that Alt. 4 would not just be focusing on "small diameter thinning", which is usually only up to 9" dbh. Yet the DEIS claims that alternative 4 would "focus" on small diameter thinning while having the same mechanical management (logging) as alternative 2. (See DEIS p. 17, par. 5) There is a trend throughout most of the DEIS to characterize what would actually be virtual clearcutting over a huge area under alt.s 2, 4, and 5, as "commercial thinning", "thinning from below". This is very deceptive and misleading analysis.

Regarding alternative 4 (DEIS p. 17): There should be no commercial removal of trees from the RHCAs or use of heavy machinery within the RHCAs. This would be a violation of INFISH and PACFISH Riparian Management Objectives, as conifer removal would not be related to riparian area restoration. This would defeat the point of RHCA "no logging" buffers to protect fish runs, other aquatic and riparian species, water quality, and natural riparian ecological processes. We strongly oppose any commercial logging and heavy equipment use in RHCAs, as contrary to RHCA and INFISH/PACFISH goals and objectives.

The DEIS for the Ellis timber sale/project has a lot of gaps in informing the public. For example, which other alternatives would commercially log in the RHCAs—alternative 2? 3? 5? Elsewhere the DEIS claims to be following the Eastside Screens, including RHCA buffers, except for alternative 5 re: logging large trees. However, that's apparently not true. The DEIS does not disclose how many miles of roads would be re-opened under each alternative in chapter 2, the alternatives section, or elsewhere. These are standard disclosures in the other EISes I've read. By omitting this information, the DEIS fails to disclose impacts of the alternatives in the description of the different alternatives.

Regarding alternative 5: We are strongly opposed to logging of any large trees except legitimate hazard trees. Since Old Forest Single-Stratum (OFSS) is deficient within the project area and Old Forest Multi-Strata (OFMS) is within the Forest Service determined Historical Range of Variability (HRV), there should be no logging of OFMS or OFSS, and no logging of large trees. Such logging would be contrary to Forest Plan goals and objectives to retain and increase large tree structure and old growth forest, not log and remove it. Converting OFMS to OFSS still removes future large tree structure and degrades the quality of the old growth habitat overall. Non-commercial thinning up to only 9" dbh by hand would remove most of the density in the dry forest types, which are the forest types more likely to have had Old Forest Single-Stratum structure historically. We are not opposed to some limited non-commercial thinning up to 9" dbh by hand in the dry forest Old Forest Multi Strata, that would largely convert those stands to Old Forest Single-Stratum structure. There should still be retention of hiding cover patches in those stands.

The Umatilla National Forest was not even meeting the 5% of the District requirement for old forest in 1992, when I did the old growth inventory for the Heppner District on a cost share contract between the Forest Service and the Audubon Society. 5% of the Forest being in old growth condition is nowhere near the historic abundance of old growth forest and large tree structure that existed prior to extensive heavy logging on the Umatilla and other Blue Mountains National Forests.

See our additional handwritten comments regarding alternative 5, with reference to DEIS p.18, starting on notebook page 6.

Regarding the description of alternative 5 on DEIS p. 18, alternative 5 is not legal, as there was no disclosure in the scoping stage of the public process that large tree logging was being considered or could

take place in the Ellis sale. Other Districts of the Umatilla National Forest and other eastside National Forests are recognizing this, and not proposing large tree logging under the Region 6 amendment to change the 21" dbh logging limit for timber sales not scoped for potential large tree logging. On the Umatilla, the Elbow CE timber sale and the Turkey Tail CE sale were not scoped for large tree logging and were not switched to large tree logging as a consequence. The same constraints and rationale apply to the Ellis timber sale. The Region 6 amendment to the Eastside Screens to allow an inadvisable return to large tree logging is obviously not motivated by any ecological imperative, but is a gift to the timber industry at the expense of the broader public, wildlife species' viability, carbon sequestration and storage needed to reduce extreme climate change, and recreational and cultural values. This is clear, as the removal of large trees (which are also usually old) by definition would not "maintain and/or enhance old forest structure", which is defined by the number of large trees per acre under the eastside Forest Plans.

Further, retaining vitally needed carbon sequestration and storage is best served by retaining all large and old trees, recruiting more large trees by letting mature trees grow bigger, and thus by also not logging most mature trees—especially the largest size class of any given stand. See Bev Law's study on this and David Mildrexler's study showing how few large trees are actually left in eastern Oregon due to past logging of large trees. A return to logging large trees would decimate that structure and increase the already huge deficit in large and old trees across eastern Oregon and southeast Washington. Many wildlife species rely on large tree structure abundance. See science articles sent in support of these comments by Blue Mountains Biodiversity Project and Western Watersheds Project for examples of studies not disclosed or considered in the DEIS analysis.

There seem to be some errors in Table 2-7 (DEIS pp. 31-39), where effects descriptions apparently refer to a different alternative than the one directly above the text as a heading in the chart. For example, see p. 37, where alternative 4 is determined to have less effects than alternative 4 itself. Likewise for alternative 5—both for the soils (erosion) issue. Similarly described effects for the same issue seem switched between alternatives 2 and 3. These errors continue further on p. 37, raising questions as to the accuracy of other parts or pages or the Table.

Drop all commercial logging in undeveloped lands or other never logged areas and lightly logged areas with little or no evidence of logging. We are strongly opposed to logging or roading in any undeveloped lands. See Table 2-7, DEIS p. 38, top issue.

Alternatives Considered but Eliminated from Detailed Study:

Since the vast majority of high tree density across the entire Ellis sale area is only small young trees generally only up to 9" dbh, using small diameter thinning and prescribed burning only is actually a reasonable alternative for meeting project objectives and should not have been rejected from detailed study. Due to multiple timber sales across the project area having already significantly removed mature and large tree forest cover, leaving many gaps in overstory canopy and many openings already, just non-commercial thinning and doing prescribed burning in the less productive, more water-stressed dry forest type would be sufficient to achieve the desired outcomes of forest health and vigor, reduction of "undesirable" effects to wildlife, and providing forest products and employment to support local communities. There are still jobs created (which is the main purpose of forest work in this area) through small tree thinning by hand, prescribed burning, riparian restoration work, hazard tree felling along major roads, and road closures and decommissioning. Non-commercial small tree thinning, and burning in the dry forest type areas would greatly reduce the most flammable biomass "fuels" regarding fire, and would relieve inter-tree competition stress for water and nutrients substantially.

Alternative C, "Structure Ignition Zones" actually does effectively address the overall objectives of reducing the risk of "uncharacteristic" severe wildfire effects to values at risk (residential homes in the Ellis project area) and should have been studied in detail. There are current science studies that find that the most effective fire risk reduction for homes and infrastructure is doing biomass "fuel" reduction within 100 feet of the home or other building—not ¼ to 1 ½ miles out from the homes or structures. See our enclosed science articles as part of our comments, including "Everything You Wanted to Know About Wildland Fires in Forests but were Afraid to Ask: Lessons Learned, Ways Forward" by Ph. D. scientists Dominick A. DellaSala, Timothy Ingalsbee, and Chad T. Hanson, March 30, 2018.

Regarding Alternative D: Reduced Livestock Grazing: There seems to be little accountability for the chronic cattle overgrazing to extremely low stubble heights, hedging of riparian hardwoods, erosion of streambeds, alteration of stream channels to greater width vs. depth ratios, and simplification of plant communities, with concurrent livestock-caused increased introduction and dispersal of exotic invasive plants. These severe impacts are killing off the biodiversity, vitality, and sustainability of riparian ecosystems in the Ellis project area. Allotment plans are obviously not stopping violations of grazing standards and are allowing for trends toward "functioning at risk" or non-functioning riparian systems instead of moving toward INFISH/PACFISH Riparian Management Objectives.

The Ellis timber sale DEIS must plan to avoid all further timber sale logging and road impacts to stream systems, moist and wet meadows, springs, seeps, fens, and river system tributaries. The Ellis "project" as a whole should be focused on ecologically sound restoration rather than commercial logging, closed road re-opening, "temporary" road building, and any management that further dries out the forest (like extensive "fuel" breaks in cool, moist or cold forest) in order to maximize water retention and riparian ecological vitality in the face of climate change-fueled chronic droughts and heat waves, plus less overall precipitation. Livestock over-grazing effects and extreme climate change effects should have been included in <u>all</u> the cumulative effects analysis.

Chapter 3: Affected Environment and Environmental Consequences:

Fire and Fuels: The DEIS existing condition section on "Fire and Fuels" fails to disclose significant scientific controversy over the use of fire regimes (Powell 2011) and condition class analysis that is considered flawed and misleading. The fire risk characterization (as on DEIS p. 47) emphasizes surface fuel loading and tree crown canopy instead of prioritizing consideration of more significant factors that are driving high intensity and extensive wild fires. These driving factors include low humidity, high ambient air temperatures, and high wind speeds, all of which are exacerbated by climate change. However these fire-driving factors can also result from heavy logging of stands, which dries out micro-climate conditions and increases wind speeds through more open stands.

Systematically, throughout this DEIS, analysis is grossly inadequate, as it does not disclose the insights of competing credible science that paints a different picture of cause and effect. This includes the negative impacts of proposed extensive logging to very low basal area retention, the negative impacts of logging large trees and mature trees that would grow into large trees that are more fire-resistant, and the problems with contiguous huge blocks of heavy logging (e.g. the combined ERZ and LIZ "fuel" breaks extending up to 1 ½ miles from roads to intersect with other road "fuel" breaks) that would increase wind speeds through the stands and cumulatively dry out the stands by removing shading and down wood, as well as leaving lots of flammable small tree and branch slash. The DEIS also fails to disclose more ecologically sound approaches than the proposed management that better restore, rather than degrade, ecological functioning and habitat for declining wildlife and plant species.

Note that the example of heavy ladder fuels in Figure 3-5 on DEIS p. 48 is all or mostly small trees that could be non-commercially thinned, rather than requiring any commercial logging. This is very typical of the tree density along major roads in the Ellis project area.

What is not being mentioned in the DEIS analysis for wildfire is that there are scientists who have found that there is not just a deficit ecologically for low severity fire, but also for all wild fire, including mid- and high severity fire. Many native species of wildlife and plants evolved with fire-created habitat niches from different severity levels of wildfire. These include tree species such as Western larch, Ponderosa pine, and Lodgepole pine, and wildlife species such as Blackbacked woodpecker, Olive-sided flycatcher, and species that depend on fire scars and cavities for dens, such as American marten and Pacific fisher.

The DEIS analysis ignores multiple studies finding that even Ponderosa pine-dominant forests were not just adapted to low severity, but also subject to stand replacement severity fire.

Transportation:

Road maintenance and ecologically sound restoration need to be disconnected from timber sales so that the Forest Service can end the practice of "destroying the forest in order to save it" through KV funds. See more of our comments on transportation in our handwritten comments and other parts of our typed comments.

Socioeconomic effects:

Why was the economic and social analysis area made so extensive as to include all five of these counties in their entirety? Was this to artificially bolster the perceived socioeconomic impacts?

The DEIS often implies that proposed management under the action alternatives would prevent damage from wildfire, which is a very unlikely outcome, especially given extreme climate change.

Re: DEIS p. 50: The heavy bias in favor of logging permeates all aspects of the DEIS. For instance, commercial logging, too many roads, and livestock grazing all tend to create "extensive loss of ecosystem services" attributed only to wildfire. Yet over-management degrades natural amenities that "affect how much people are willing to pay for real estate" and "can reduce property values", though these effects are attributed only to wildfire.

It's notable that forestry is a continually declining income source due to substantial past over-logging and greatly reduced average tree size, as well as timber industry automation and major timber corporations leaving the area for easier pickings in other countries with less environmental regulation. Thus the DEIS combined forestry with the more substantial agriculture sector, plus fishing and hunting (which are often harmed by timber sales and livestock over-grazing removing forage for deer and elk) to make it look like a major sector of employment at a combined 13.9%. However forestry is a much smaller percentage of employment, especially when measured as timber sale revenue-related jobs instead of forestry in general, which could include aquatic restoration, non-commercial small tree thinning, prescribed burning, trail maintenance, etc. This seems purposefully misleading. (See Figure 3-6, DEIS p. 51)

Obviously, based on Table 3-7 on DEIS p. 51 and statistics in the paragraph above, the eastern Oregon economy no longer relies heavily on the timber industry. You can't squeeze blood out of a turnip.

So many Forest values are still being sacrificed for what is now only 2.2% of total employment in "forestry-related sectors" in the broad analysis area of five counties, and only 5% of all timber-related

jobs in Oregon. Values being sacrificed to continued over-logging on a completely unsustainable scale, pace, and intensity include biodiversity of wildlife and plant species, water retention, carbon sequestration and storage, and foundational ecological processes.

We are concerned that the elk population has been drastically reduced from what it used to be in the Ellis sale area, which comprises what used to be prime elk habitat and a highly valued hunting area. Staying in the Ellis area over two different seasons for about a month or more to field survey sale units revealed very little elk sign and few elk sighted. This was the case both during bowhunting season, when the elk seemed to be expending a lot of energy to evade hunters, who were everywhere throughout the sale area, and during the non-hunting season field surveying in early summer. I was shocked by how few elk seemed to be in the area compared to my previous experiences with seeing many elk in this area, starting in 1992. This represents either mass displacement of elk to private lands or lower reproduction and survival rates or both. An 8% success rate for hunters in the Heppner unit seems very low for hunters compared to hunting seasons as recent as 20-30 years ago. The elk gender ratio has long been very skewed, with fully mature elk bulls being in a ratio of about 1 mature bull to 150 mature elk cows, likely due to the over-hunting of trophy bulls. The apparent decline in elk numbers on the Heppner District and reasons for this decline are not addressed in the Socioeconomic section.

The lower success rate of hunters in the Ukiah area may be due to substantially lower forest hiding cover compared to the Heppner District area, which should have been analyzed for effects from the Ellis timber sale.

Recreation and Scenery:

We strongly support no management being planned for management areas to support non-motorized recreation (Management Area A-1) as well as for all undeveloped lands, the Potamus Inventoried Roadless Area, and other never logged lands (see our survey sheets for other never logged areas.)

We support there being no commercial logging along, or visible from, the Scenic Byway. The existing long distance view from the Scenic Byway is ugly and depressing due to obvious logging.

The Penland Lake campground area doesn't need more logging on top of the commercial thinning and fuel breaks that have already been implemented. Logging removes overstory and shade immediately, while fire effects may not take place or have that effect there. Crown to crown contacts are recreational assets to a campground for shade and aesthetic values, with shade more important than ever with unprecedented heat waves.

Stop commercially logging the few developed recreation sites except for individual hazard trees near structures and parking, including for the Ditch Creek rental cabin. There is nothing unnatural or threatening about tree crowns touching—including Lodgepole pines. (See DEIS p. 54, 2nd to last sentence)

The dense edge of the Divide Well Campground should not be logged, as this is a swampy RHCA with some standing water even in the summer. It is a unique habitat and needs to be protected from logging, as it is critical for wildlife habitat as a water source with security cover, and is interesting for recreational exploration.

All cool moist and cold forest types, as well as Old Forest Multi-Strata and Old Forest Single-Stratum should not be commercially logged but could be non-commercially thinned up to 9" dbh by hand only, while still leaving sufficient hiding cover patches. Cool moist and cold forest types should not be prescribed burned due to the following reasons: these forest types retain more moisture and are less

subject to water stress; commercially logging and burning these forest types degrades or eliminates habitat suitability for species adapted to these forest type conditions of a moister, more productive environment; and more continuous overstory canopy cover, and greater numbers of old growth live trees, snags, and logs, and/or multi-layered canopy.

There is no evident need to do "fuel" reduction or logging along the canyon rim surrounding Potamus Point—not based on the DEIS description, nor on the existing condition of the area experienced on the ground, which I witnessed. Leave the whole Potamus IRA and canyon rim alone except for careful prescribed burning. It is a very open area with good road access for egress from a wild fire.

203 of 251 inventoried campsites being within 300 feet of an open road demonstrates that it's not necessary to keep so much mileage of roads open (See DEIS p. 55, 2nd par.), as in alternative 3 and alternative 2, with 280.5 miles open year-long under alt. 3 and 214 miles open year-long under alt. 2. Thus it is also not necessary to implement such high mileage of roadside "fuel" breaks and so much hazard tree felling, which depletes snags for wildlife.

Hydrology and Aquatic Species:

Why is there no data available for the Potamus Creek and Mallory/Ditch watersheds, and only a 1999 "evaluation" for the North Fork John Day/Matlock and Fivemile watersheds? This seems like dereliction on the part of the Forest Service, especially when the evaluation found that the North Fork John Day/Matlock and Five Mile watersheds were "Functioning at Risk" and there was no follow-up restoration and continued monitoring on the ground. What will the Forest Service do to restore conditions in the Potamus Creek-North Fork John Day watershed to move it away from "Functioning at Risk" for sediment and turbidity and for the Lower Camas Creek watershed "Functioning at Risk" based on current data? Why did the DEIS analysis state that the Lower Camas Creek watershed was "Functioning at Risk" based on current data, only to say two sentences later that: "Data were not available for evaluating the Lower Camas Creek watershed"? (See DEIS p. 56, par. 2.) If the latter statement is correct, why is there no data available for evaluating the Lower Camas Creek watershed?

Why has nothing been done by the Forest Service to restore the Potamus Creek-North Fork John Day and Lower Camas Creek watersheds from "Not Properly Functioning" for water temperature, based on the most recent data? If anything has been done to restore proper riparian functioning of these watersheds, I assume that would have been reported in the DEIS analysis. (See DEIS p. 57, 2nd full par.)

We are concerned that: "Data from the last 10-15 years of the PIBO monitoring program suggest that higher than desired levels of fine sediments in pool tailouts (<6 mm) occurred in streams of the Blue Mountains ecoregion and specifically on the Umatilla National Forest (Archer and Groce 2020; Archer and Ojala 2017). Having high fines in this habitat type leads directly to issues with spawning and emergent salmonids, as these are the specific locations where many species of fish prefer to spawn. Many streams in the project area experience high summer water temperatures. Only one of the stream sites monitored in the Potamus Creek or the Fivemile Watersheds are properly functioning for stream temperature. The Smith Ditch site did barely meet the upper temperature threshold for properly functioning in 1997….This is the only site sampled in either the Potamus or Fivemile watersheds that met standards. This pattern is also evident for sites in the PIBO program. The Matlock Creek-Stony Creek, Ellis Creek-Potamus Creek, Potamus Creek, Mallory Creek, and Ditch Creek subwatersheds were described as exceeding water temperature standards (U.S. Department of Agriculture 2004)." (DEIS p. 56, last two par.s)

We are also concerned that: "The most recent information from the Oregon Department of Environmental Quality indicates several subwatersheds and streams in the project area as being impaired, or not meeting established water temperature standards." (DEIS p. 57, 1st full par.) "Watershed functioning, using most recent data for the Water Temperature Indicator, resulted in a "Not Properly Functioning" call for both the Potamus Creek-North Fork John Day River and Lower Camas Creek watersheds." (DEIS, p. 57, 2nd full par.) Several subwatersheds and streams in the project area being impaired or not meeting established water temperature standards is cause for alarm, and should be enough for the Forest Service to re-focus their attention and funding on saving the integrity of these subwatersheds and streams through ecologically sound aquatic restoration, in order to maintain viable fish runs of Threatened Mid-Columbia River Steelhead trout and Sensitive Redband trout, and aquatic and riparian habitat for many other species, including Sensitive Columbia spotted frog, possible salamander species and Sensitive Pacific lamprey, and potential Sensitive freshwater mussels such as Western ridged mussel.

Instead, the Forest Service is planning a massive, landscape scale timber sale with heavy, intensive logging, road construction, re-opening of closed roads, and use of heavy ground-based machinery with the Riparian Habitat Conservation Areas under alternatives 2, 4, and 5. Such widespread heavy logging, road work, and direct impacts within RHCAs can be foreseeably expected to increase excess sedimentation of streams, destabilize stream banks, increase surface run-off, remove a lot of plant cover that would otherwise filter run-off, destabilize slopes that are logged, and displace ash soils off logged slopes, potentially into streams below, as well as potentially further increase water temperatures. All harmful to the Threatened and Sensitive fish species, any resident freshwater mussels, and possibly Columbia spotted frog. Such widespread biomass removal and burning as planned under these action alternatives could also have a net effect of reducing moisture otherwise retained by tree shading and down wood.

As the DEIS analysis acknowledges, most of the existing impairment of watersheds and streams in the Ellis project area is likely a consequence of numerous previous timber sales in the area:

"Timber harvest has occurred within RHCAs in the Potamus Creek watershed, the majority prior to 1996 (U.S. Department of Agriculture 2004). Percentages of estimated timber in RHCAs harvested by subwatershed were 4 (Deerhorn Creek-North Fork John Day River), 52 (Matlock Creek-Stony Creek), 44 (Ellis Creek-Potamus Creek), 23 (Potamus Creek), 17 (Mallory Creek), and 48 (Ditch Creek)….Historic timber harvest in RHCAs has resulted in increased soil erosion and sedimentation in streams, reduced recruitment of large wood affecting pool formation and cover, and reduced shade, affecting water temperature." (DEIS p. 57, 3rd full par.) Regarding stream shading, the DEIS acknowledges that: "Many values were less than 20% and likely reflected the timber harvest in RHCAs that occurred prior to the stream surveys." (DEIS p. 57, 4th full par.)

Heavy commercial logging that could cause sediment run-off, logging on steep slopes over riparian areas, and logging or further road construction within RHCAs (as buffers are designated by INFISH and PACFISH) should be prohibited based on the history of severe degradation following such logging, as recognized in the DEIS analysis on p. 57.

The DEIS analysis also describes a long-term trend of watersheds not properly functioning in the Ellis planning area that threatens aquatic and riparian-associated wildlife species' viability in the area:

"Timber harvest in RHCAs and stream shading were used to characterize RHCAs for the 1999 evaluation. Using these indicators, watershed functioning was rated as "Not Properly Functioning" for the Mallory/Ditch, North Fork John Day/Matlock, and Fivemile watersheds and "Functioning at Risk" for the

Potamus Creek watershed in the 1999 evaluation. Currently, "Not Properly Functioning" is the most appropriate rating for the Potamus Creek-North Fork John Day River and the Lower Camus Creek watersheds." (DEIS p. 57, 5th full par.)

Further, the DEIs reports that: "Watershed functioning using most recent data for the Substrate/Embeddedness Indicator suggested the Potamus Creek-North Fork John Day River and Lower Camus Creek watersheds as "Functioning at Risk". The data above and field observations indicate that fine sediments continue to be a problem in many streams in the Project area." (DEIS p. 57, par. 6) This should trigger adaptive management approaches on the part of the Forest Service that would avoid increasing fine sediments in streams in the Ellis area by, for instance, not re-opening closed roads or building "temporary" roads within RHCAs, not using ground-based equipment within RHCAs, and not allowing logging on steep slopes over RHCAs. Yet the DEIS analysis doesn't focus on ways to avoid sedimentation of streams; reduction of down wood within RHCAs; potential impacts to stream shading; potential de-stabilization of stream banks; and loss of plant cover and diversity in RHCAs. Yet NEPA required analysis is intended to focus the agency on problem solving, including figuring out how to avoid or prevent foreseeable ecological impacts.

The DEIs notes that road densities and locations are preventing proper functioning of watersheds: "Watershed functioning for road density and location for all the Mallory/Ditch, Potamus Creek, North Fork John Day/Matlock, and Fivemile watersheds in the 1999 evaluation were 'Not Properly Functioning.'" (DEIS p. 57, last par.)

We are concerned by existing road densities within RHCAs are as high as 2.7 miles per square mile by watershed and 3.8 miles per square mile by subwatershed. As the DEIS admits on p. 58: "To meet the 'Properly Functioning' category, overall road density needed to be <2 mi/mi2 with no roads in RHCAs. Similarly, to meet the 'Functioning at Risk' category, overall road density needed to be 2-3 mi/mi2 with 0.1-1.0 mi/mi2. [In RHCAs?] Using the most recent data, both the Potamus Creek-North Fork John Day River and Lower Camas Creek watersheds were 'Not Properly Functioning'."

Riparian restoration work shouldn't be tied to timber sales such that more logging damage is used to pay for more restoration. Instead, the Forest Service could use funding under the most recent ARBO decision and from Biden's new influx of funding to get the rest of the roads within RHCAs fully decommissioned and overall road density brought down to 1.5 miles per square mile or less. So the Forest Service should be planning to fully decommission all existing roads within RHCAs and reduce overall road density to 1.5 miles per square mile or less under all action alternatives.

Any major streamside roads that are heavily used by the public should not have commercial logging next to the road or within the RHCA buffers and should incorporate natural swales on the downhill side of the road to capture sediment. Existing stream crossings should be considered for riparian restoration based on the current best available science, with no new stream crossings used. Some of these roads adjacent to creeks include 5316 (Thompson Creek), 2104-150 (Graves Creek), and 2104 along Ditch Creek. There should be buffers left between these roads and the adjacent creeks, not barren fuel breaks. Where these are mid-slope roads (e.g. 53, 5320 and 2105), there should be effective natural swales on each side of the road to capture sediment, and no barren or near barren slopes created by fuel breaks or other logging on both sides of the road.

Undeveloped Lands:

We are opposed to all commercial logging and road building in undeveloped or never logged lands (which may not all have been identified by the Forest Service.) Where these occur in <100 acre patches,

these could be retention areas for wildlife that are not logged or roaded. Bigger areas should also be dropped from all management except prescribed burning only where they exist in dry forest types. There are few undeveloped lands left on National Forests outside of Wilderness Areas and Inventoried Roadless Areas. See our more detailed comments on effects to undeveloped lands in our handwritten comments on notebook pages 93-96.

Omission of a separate effects section to analyze changes to old growth structure:

Unlike other EISes in the eastern Oregon region, the Ellis DEIS does not have a separate effects section to analyze changes to old growth structure and how these changes would affect old growth-dependent wildlife. This is a critical gap in the analysis that downplays the importance to large and old growth forest structure for many wildlife species, including Management Indicator species, such as Pileated woodpecker, American marten, and Northern goshawk.

Forest Vegetation: See our handwritten comments on notebook pages 102-121.

Fire and Fuels: See our handwritten comments on notebook pages 121-129.

Wildlife: In addition to the following typed comments, see our handwritten comments for the following species: American marten: pages 13-22; Northern Three-toed woodpecker: pages 22-24; Pileated woodpecker: pages 25-35; Primary cavity excavators: pages 35-40; Rocky Mountain elk: pages 40-51.

Wildlife:

The following is an unsubstantiated DEIS claim: "This section analyzes and discloses the effects of proposed activities on all federally threatened, endangered, and proposed (T &E), Forest Service Region 6 sensitive terrestrial wildlife species, and management indicator species (MIS) that are known to occur, have the potential to occur, or have suitable habitat within the project area." (DEIS p. 83, last par.) This claim is not true, in that the DEIS wildlife section does not analyze and disclose the effects of the proposed activities on <u>all</u> federally Threatened-listed and Sensitive species "that are known to occur, have the potential to occur, or have suitable habitat within the project area." There is no analysis of potential effects to Threatened Canada lynx and no disclosure or analysis of effects to Sensitive Pacific fisher and Sensitive wolverine. Pacific fisher and wolverine are not even listed in Table 3-31 (DEIS p. 85) for consideration for effects.

As of January 2021, the Threatened-listed Canada lynx is still listed as a Threatened species on the Umatilla National Forest (see DEIS p. 84, last par.), was historically known to occur on the Umatilla National Forest, still has potential to occur on the Umatilla, and has suitable habitat in the Ellis project area, with high elevation cool moist mixed conifer forest and Lodgepole pine with relatively continuous blocks of cover for winter habitat. There are also Snowshoe hares, their main prey, in the Ellis area (we have seen the Snowshoe hares there), and I have had two positive spring and summer daylight sightings of Canada lynx just south of the southwest end of the Heppner District and crossing highway 19 by the John Day River within the last decade, with the highway 19 sighting only a year or two ago. Canada lynx apparently disperse to lower elevation habitat in warmer weather after significant snow melt, and return to higher elevation forest with high snowpack in the winter to avoid competition for prey with coyotes and bobcats. Their prey is not limited to Snowshoe hares.

It only requires one of these requirements for occurrence or suitable habitat to be met for the DEIS claim to be false or misleading. An ex-employee of the Fish and Wildlife Service verified to me that the sudden changes from mapped "Lynx Analysis Units" in the 1990's in the Ochoco and Umatilla National Forests (which the DEIS does not disclose) were based on purely political decisions, not on the science.

Three Blue Mountains Biodiversity Project also positively identified a Canada lynx in higher elevation Lodgepole pine/moist mixed conifer forest habitat on the Ochoco National Forest in the early 2000's. in the vicinity of the Black Bear timber sale.

The Ellis DEIS analysis also does not disclose potential occurrence and effects to Sensitive Pacific fisher, even though Pacific fisher historically occurred in most forest across the state, and was identified in analysis by the Umatilla National Forest staff as still potentially existing in the Fox Roadless Area around 1995. There may be some suitable Pacific fisher habitat in the Ellis project area—especially in the old growth moist mixed conifer In the north half of the sale area. I have also had a night sighting (in my truck's headlights' range) of a likely Pacific fisher in the Heppner District of the Umatilla National Forest by highway 207, another night sighting of what looked like a Pacific fisher crossing Highway 20 in the Metolius area of the Deschutes National Forest between the Camp Sherman turn off and Suttle Lake, and a daylight positive sighting with a volunteer of a Pacific fisher in appropriate old growth mixed conifer habitat at high elevation (about 6,000 feet) in the Wolf timber sale area on the Ochoco National Forest while field surveying. Both of us saw the Pacific fisher in the Ochoco sighting. The Deschutes Forest Service staff have also documented the known existence of Pacific fisher through trail camera photographs in various timber sale NEPA analysis, in recent years (over the last two decades) for the Newberry Crater area and the southern Deschutes, including near a big marsh in the Crescent District. In other words, Pacific fisher are apparently dispersing from recovery populations in the Cascades and southwest Oregon, or else have always maintained at least low populations in eastern Oregon that were undetected. Thus there is reason to believe that the Pacific fisher could be using Ellis sale area habitat.

Environmental Impact Statements throughout the Blue Mountain National Forests and the Deschutes National Forest have included analysis for potential effects to California wolverine (or Gulo Gulo) as a standard component of their analysis over the last three decades. Asante Riverwind and I saw definite wolverine tracks in snow in the Emigrant District of the Malheur and Asante also had a rare daylight sighting of a wolverine in the southern Malheur National Forest. The Malheur Forest staff have recognized the potential for wolverine on the Malheur. The Umatilla National Forest has more potential source habitat for wolverine than the other Blue Mountains National Forests due to the Umatilla's inclusion of the most high elevation Wilderness Areas, along with the Wallowa-Whitman National Forest having substantial Wilderness Area proximity. Wolverine roam over a territory of thousands of acres for foraging, since they are scavengers. This means that they could be found in many different forest habitats with a range of elevations outside of their winter denning period, including the Ellis project area. There is historic evidence of wolverine in Blue Mountains National Forests, including a dead wolverine found near the Strawberry Mountain Wilderness Area on the Malheur National Forest in the late 1990's and a stuffed wolverine in Fossil, Oregon's small museum.

The Ellis DEIS should have included detailed, in-depth analysis for potential effects to rare, Sensitive-listed wolverine and Sensitive Pacific fisher (both of whom were candidates for federal up-listing), and Threatened-listed Canada lynx.

Even if there is no resident population of Canada lynx on the Umatilla National Forest (which is highly debatable, as there is plenty of suitable habitat and Snowshoe hares on the Umatilla), effects to dispersing lynx (and fishers, and far-roaming wolverine) should still be analyzed. (See DEIS p. 84, last par.) A single, politically-motivated "white paper" is not enough to justify failure to consider potential project effects to a Threatened-listed species (and two Sensitive-listed species) known to have historically occupied the Umatilla National Forest. As far as I know, there has been no on-the-ground long-term scientific study to establish the absence of lynx, Pacific fisher, or wolverine on the Umatilla National Forest.

The following DEIS conclusion that is usually used to support the need for detailed potential effects analysis to federally or state-listed wildlife species that could be using a project/timber sale area, should have been applied to inclusion of analysis for potential effects to Canada lynx, Pacific fisher, and wolverine: "It is also important to note that accurate estimates of wildlife populations relative to the project area are difficult if not unfeasible to obtain. It is unlikely that all activity centers such as dens or nests have been found. Lacking complete information on species distribution and abundance, when this habitat occurs on which a species depends, we generally consider the habitat as potentially occupied." (DEIS p. 84, par. 2) Considering the habitat as potentially occupied is a justifiable precautionary approach to consider potential effects to rare and listed species. This is also the usual approach used by the Forest Service for both wildlife species and plant species effects analysis when there is no certainty that the wildlife species or plant species is not present in the planning area.

There is no evidence presented in the DEIS to substantiate the claim that there is a lack of suitable habitat within the project area for Canada lynx (and of course the same applies to Pacific fisher and wolverine, who were not even disclosed or considered in the analysis.) Notably, the "U.S. Fish and Wildlife Service concluded that lynx may occur on the forest as dispersers that have never maintained resident populations (USFWS 2003)." (DEIS p. 84, last par.) Dispersing wildlife need suitable habitat and wildlife connectivity corridors in which to disperse, as well as potential suitable habitat to occupy, which is now more important than ever under the effects of extreme climate change rendering lower elevation habitat and habitat further south unsuitable due to droughts, increasingly high temperatures, and potentially more intense wildfires.

Potential effects to dispersing Sensitive Gray wolves are not considered in detailed, in-depth analysis in the Ellis DEIS even though Gray wolf is listed in Table 3-31 on DEIS p. 85. This is a strange omission, as the description heading for Table 3-31 is: "Sensitive vertebrate species listed for the UNF [Umatilla National Forest] that may be impacted by [the] project and required additional analysis." (DEIS p.85, emphasis ours) This Table description should have triggered the required additional effects analysis for Gray wolf, as well as for Sensitive Pacific fisher and Sensitive wolverine, based on the full listing of regional and Umatilla National Forest Sensitive species. Of course the same should have been done for the acknowledged Threatened-listed Canada lynx. Yet the rest of the description for Table 3-31 has this terse shunting off of responsibility through lack of disclosure in the DEIS: "Full list pulled March 2019 (see Wildlife Report for full list of species)." The public should not have to find and read a separate wildlife report to know what the full list of Sensitive wildlife species is for the region and the Forest, and which species were left out of the analysis, as we described above. The analysis discussion of potential effects to Rocky Mountain elk should have also triggered in-depth analysis of effects to Gray wolves, as they are the elk's main natural predator.

There should be disclosure in the DEIIS for the public of the full list of TESC (Threatened, Endangered, Sensitive, and Candidate-listed) species, Management Indicator species, and Land Birds of Conservation Concern, which is standard for an EIS throughout the region. This information should not be hidden away in a separate wildlife report. The public should be allowed to decide whether or not proposed actions will affect TESC species, Management Indicator species, and Land Birds of Conservation Concern by knowing which of these could be in the project area and what specific habitat all of these species need. (See DEIS p. 84, par. 4) Wildlife species cannot be excluded from effects analysis in the DEIS because of "project design and design features or other mitigations" (DEIS p. 84, par.4), as these should be disclosed in detailed effects analysis for the wildlife species, so that the public can evaluate whether or not the project design, design features, or other mitigations are sufficient to protect the species' habitat. Even when a wildlife species or its habitat is not considered present in the project area,

these species are usually disclosed in at least a table in the EIS to show why that determination was made, including description of the species' suitable habitat.

Threatened Canada lynx, Sensitive Pacific fisher, and Sensitive wolverine should have been analyzed in depth for effects in the DEIS as potentially occurring in the Ellis project area and having at least potential dispersal and foraging habitat in the project area. Pacific fisher and wolverine should have been included in Table 3-31 as Sensitive vertebrate species "that may be impacted by [the] project and required additional analysis." (DEIS p. 85, Table 3-31 description heading) There should have been acknowledgement that these three species have been known to occur on the Umatilla National Forest. The DEIS analysis should have included any reported sightings or other evidence of presence for Canada lynx, Pacific fisher, and wolverine; with description of the species' habitat needs and ranges, and the acreage of suitable habitat a pair of each of these three species would need to have a viable population. Effects to these species' successful dispersal for migration between winter and summer habitat and for genetic diversity or escaping climate change effects rendering existing former habitat unsuitable should have been covered in the DEIS analysis for consideration of effects to the viability of Canada lynx, Pacific fisher, and wolverine in the project area.

Have there been any surveys, camera set sightings, bait station evidence, or reported sightings for Canada lynx, Pacific fisher, or wolverine on the Umatilla National Forest or in or near the Ellis project area in recent years? This lack of disclosure seems like a politically motivated erasure of these species. How is the public supposed to assess the accuracy of effects analysis when it doesn't appear in the DEIS, and relevant wildlife species that could exist in the project area, including Sensitive-listed species, are not even disclosed in the DEIS? This lack of disclosure and detailed effects analysis violates NEPA.

A Draft Environmental Impact Statement can't just arbitrarily omit analysis of effects to known Sensitive species on the Forest that may occur in the project area, including the Sensitive bat species, Sensitive butterfly and bee species, Upland Sandpiper, Gray wolf, and Bighorn sheep. This is inadequate analysis through omission. (See DEIS p. 85, 2nd to last par.) The DEIS claims that: "There are several sensitive species that were analyzed in more detail resulting in an "overall beneficial effects" determination from proposed activities for all action alternatives." We would like to see that detailed analysis in the DEIS so we can make more own assessment as to whether a determination of "overall beneficial effects" is warranted for these Sensitive species. Instead, the DEIS just avoids this requirement under NEPA by making the public have to look for and read the Wildlife Report: "See Wildlife Report for details of these species and the potential positive impacts from proposed actions." (DEIS p. 85, 2nd to last par.) All the other Environmental Impact Statements I've read have included effects analysis for wildlife species when they have potential to occur in the project area, regardless of the type of effects anticipated.

Likewise, the methodology and data used is disclosed and described in more detail in the wildlife report, but not in the DEIS. NEPA requires that methodologies used for analysis be disclosed and described in an EIS. Relevant data should also be disclosed in an EIS. See DEIS p. 84, 1st par.: "The wildlife report describes the methodology and data used in more detail…."

The DEIS acknowledges that "it is important to note that because different vegetation data sets were used to estimate project level and forest wide MIS source habitat, a direct comparison of impacts of the proposed treatments within the project area to forest level impacts of source habitat has limitations and should be used with caution." (DEIS p. 84, 1st par.) There is another reason to be wary of Forest-wide vegetation data sets to determine the viability of a species within a project area regarding the effects of proposed management actions: there is usually no analysis of ongoing and foreseeable future

management effects to these species across the whole Forest in the EIS. This tends to downplay negative impacts to the species based on the dilution of effects to the species at the Forest scale. This is the case since the viability of the species is determined at the Forest scale—without consideration of cumulative effects of ongoing management and foreseeable future management impacts to the species at the Forest scale. Thus switching the scale of analysis to determine species viability results in unreliable effects determinations for the viability of the species.

Lewis' and White-Headed Woodpecker:

The DEIS admits that the effects analysis for Lewis' and White-headed woodpeckers have been lumped together despite the habitat differences for the two species: "Both species occupy similar habitat [,] therefore their analysis has been lumped together." (DEIS p. 85, last par.) Actually, Lewis' and White-headed woodpeckers have distinct habitat niches that don't always overlap.

Lumping the analysis of White-headed woodpecker and Lewis' woodpecker together is inaccurate and not sufficient. This is especially the case when the analysis then fails to evaluate and disclose specific effects to Lewis' woodpeckers, who have some different habitat needs, such as post-stand replacement fire-burned forest that burned a decade or more ago, and riparian forest with large Cottonwoods habitat that is not documented as White-headed woodpecker suitable habitat. The DEIS states that the two species will be analyzed together and then immediately makes a U turn by saying: "However, the focus is on White-headed woodpecker." (DEIS p. 85) This tosses out specific consideration of the status of the Lewis' woodpecker and their habitat needs. This also results in over-stating the amount of habitat available for Lewis' woodpeckers, by basing the analysis on 4,628 acres of source habitat for White-headed woodpecker, which is likely to be more broadly distributed than the less available for specific habitat needs of the Lewis' woodpecker. Neither of these woodpecker species just needs "open dry habitat" , a gross over-simplification of their habitat requirements.

The two species' differing habitat needs and relative rarity are not considered. The DEIS fails to recognize that if "No Action" leads to more high severity fire, as posited, the Lewis' woodpecker would benefit over time while the White-headed woodpecker might not. Generally enough snags remain standing from a stand replacement fire to meet the Lewis' woodpeckers nesting and perching requirements, whereas White-headed woodpeckers depend on live old growth Ponderosa pines for eating the seeds and gleans insects from smaller live Ponderosa pines. The analysis fails to consider the differences in prey for the two species, as the Lewis' woodpecker depends on flying insects, and the White-headed woodpecker depends on insects on or in standing tree bark, as well as old growth Ponderosa pine seeds. So it's not true that all action alternatives would benefit both species as claimed. The Lewis' woodpecker loses suitable habitat if there is not enough stand replacement severity wild fire (i.e. if the action alternatives or just wildfire suppression reduce the incidence and extent of high severity fire.) The White-headed woodpecker would lose more suitable habitat under alternative 5 if there is logging of large Ponderosa pines, and also through hazard tree removal under all the action alternatives, as well as through heavy logging of mature Ponderosa pines, as this would reduce the number of future large, old Ponderosa pines. While both species are declining, they are not necessarily declining due to the loss of the same kind of habitat, so the different action alternatives have different effects on the two woodpecker species. The Lewis' woodpecker could be more harmed by riparian area logging than the White-headed woodpecker, through loss of large Cottonwood trees or loss of moisture retention in riparian areas.

The analysis for White-headed and Lewis' woodpecker fails to analyze any of the many negative effects of the action alternatives to either species. Negative effects which are not discussed for the two species

include loss of large trees—live under alternative 5 and action alternative hazard tree logging, as well as future large structure through heavy, extensive commercial logging planned under alternative 2, 4, and 5, and to a lesser degree, alternative 3. All of the action alternatives would greatly reduce the abundance of mature trees up to 21"dbh that could otherwise grow into large trees, and cause loss of live, snag, and log large tree structure through associated hazard tree removal. The excessive fuel breaks planned (the Ember Reduction and Low Intensity Zones) and prescribed burning would remove many snags, most down wood, and numerous live trees on a landscape scale. None of those effects from the action alternatives would mimic the natural disturbances with which these woodpecker species evolved, as huge amounts of biomass would be removed, not just re-distributed as snags, logs, remaining live tree patches, and ash, over a short time period (within a decade) on a landscape scale of tens of thousands of acres.

As usual, the Forest Service's viability analysis for Lewis' and White-headed woodpeckers is flawed, as the analysis fails to consider cumulative impacts of many other timber sales, "fuel" breaks, and prescribed burning across the Forest to these species' habitat—from ongoing implementation of current timber sales, and from timber sales that have not been implemented yet but have decisions allowing their implementation, as well as foreseeable future timber sales and other projects—across the entire Forest.

There is no certainty that 23% of the available source habitat (which actually only pertains to White-headed woodpeckers) would not be negatively affected rather than positively. There is no analysis as to what a rather large loss of source habitat of 23% would mean to the viability of either species in the planning area. Without up to date credible scientific data as to the population status currently of these species on the Forest and in the project area, there is no credible basis for an assurance of continued viability of either Lewis' or White-headed woodpecker in the project area or on the Forest.

Scientific data used to determine species' population viability should include reproductive success rates, population trends, current population status, and scientifically determined viability thresholds for all Management Indicator species and TESC species, based on peer-reviewed field studies.

Table 3-33 is confusing. Does the "No/Yes" under "Documented Habitat/Present?" mean that there is no documented habitat but the species is present? This doesn't make much sense.

Johnson's Hairstreak (Butterfly):

Regarding Johnson's Hairstreak butterfly, the analysis for effects from alternative 1 and 2 contradict each other, saying under alternative 1 that "the benefits of increased flowering plants will be negated with the loss of its needed mistletoe" while alternative 2 analysis claims without justification that "The offset between reduced mistletoe but increased adult nectaring food sources should balance out most disturbances that could arise for the Johnson's Hairstreak during the Ellis Project…." (DEIS p. 87, 2nd to last and last par.s) The "disturbances that could arise for the Johnson's Hairstreak during the Ellis Project" implementation and its aftermath would include the targeted removal of trees with the specific plant associated with this Sensitive imperiled species for larval survival food and substrate, but this isn't mentioned.

This is incredibly sloppy and inadequate analysis for wildlife species. For instance, there is no disclosure that Johnson's Hairstreak butterfly is incredibly difficult to detect in surveys. Then the DEIS analysis concludes without substantiation that while "individuals may be affected by proposed project activities", these are "not likely to lead to a trend toward federal loss of viability, especially since there are no known documented sightings in the Ellis Project" even though this is an imperiled species already.

Then, after that, the analysis repeats the contradictory claim: "Though the dwarf mistletoe reduction may have negative effects to Johnson's Hairstreak, the potential increase in nectaring plants will have beneficial effects which should balance overall effects." (DEIS p. 88) Apparently there is no editing oversight for unsubstantiated or contradictory claims—as long as they support the timber sale going forward as planned.

Management Indicator Species:

The generalized effects analysis for alternative 1 for three Management Indicator species is very biased, as it fails to consider the benefits over the long-term for all three species of No Action, as all three species have evolved with wildfire but not with logging. All three species (American marten, Pileated woodpecker, and Three-toed woodpecker) have arguably declined from historical species abundance since the increasing and cumulative pressure of commercial timber sales removing their habitat over multiple decades. Multiple timber sales, now at a greatly increased scale and pace, as well as with a return to greater logging intensity, have resulted in big openings that jeopardize security from predators and in much more young forest lacking abundant snags and logs—now on a landscape scale. American marten and Three-toed woodpecker are now ranked as "Vulnerable" and Pileated woodpeckers are starting to decline as well. The woodpecker species also benefit from insect outbreaks, but this is not disclosed in the analysis for alternative 1 that characterizes for all three species that No Action would "increase the risk of losing the existing habitat to disturbances such as insect, disease, and high intensity wildfires." (DEIS p. 88, par. 4) Natural disturbances can benefit all three species by creating more abundant snags and logs, but this is not considered in the analysis.

The Ellis planned logging would have far more negative effects than no action, including removal of forest cover in contiguous blocks on a landscape scale, which would greatly reduce these species' habitat requirements of "medium to large trees, closed canopy, snags and down wood." (DEIS, p. 88, par. 3) Yet the negative impacts to common habitat requirements for all three species (identified for all three species on DEIS p. 88) from planned management in the Ellis timber sale are not considered.

Problems with the generalized action alternatives effects analysis for marten, Pileated woodpecker, and Three-toed woodpecker: All three species would likely be "displaced" for the <u>long</u>-term, as commercial logging removal of needed habitat and canopy closure would either eliminate habitat suitability (very likely) or greatly degrade habitat quality. Pileated woodpeckers depend on high canopy closure—60% for nesting and 40% for foraging--for protection from larger raptors and owls. These needed levels of canopy closure are not likely to be retained in the majority of the commercial sale units—on a landscape scale. Marten are known to not cross big openings, which would be created by this timber sale. Marten need abundant down logs and big snags that would largely be lost to "fuel" (biomass) reduction and "fuel" breaks, as well as to commercial logging and prescribed fire, as well as hazard tree removal. Three-toed woodpeckers require abundant snags and old growth Lodgepole pine forest structure, neither of which are likely to survive planned timber sale logging, unless Lodgepole pine forest and cool moist mixed conifer forest is not logged and Old Forest Multi-Strata and Old Forest Single Stratum are not logged, as in alternative 3 or No Action. Retention of "minimum" down wood and large snags would not be enough to support the viability of these three Management Indicator species, as required by the National Forest Management Act (NFMA). Commercially logged old forest would <u>not</u> be likely to "continue to provide habitat for these species" as claimed. (See DEIS p. 88, last par.) <u>The Ellis sale could foreseeably result in loss of viability for Pileated woodpecker, American marten, and Three-toed woodpecker in the project area and lead to an up-listing trend for these species unless No Action or alternative 3 is chosen.</u>

See pp. 13-20 for more comments on effects to American marten in our handwritten comments. See pp. 22-23 of our handwritten comments for more comments on effects to Northern Three-toed woodpecker. See more comments on effects to Pileated woodpecker in our handwritten comments on pp. 25-29. See more comments on effects to Primary cavity excavators in our handwritten comments on pp. 35-39.

Primary Cavity Excavators:

Forest Service staff seem to have been strangely reluctant to fully disclose their data sources, methodology, or specific numerical estimates regarding effects to wildlife species, contrary to NEPA requirements. Usually in an EIS there would be a table to show known reference conditions for snag densities compared to existing available snag densities by size. Yet for the effects to Primary cavity excavators, even though it's clear they are using this information, they refuse to divulge it in the DEIS. For instance, large snag densities are judged to be "very close to reference conditions" in the Ponderosa pine/Douglas fir habitat type, but neither the reference condition large snag density nor the existing snag density is divulged, so we don't even know if large snags are above or below reference conditions, or by how much. The attitude of the Forest Service seems to be that the public should just blindly trust whatever they say, while the point of NEPA is to disclose sources, methodology, and actual figures pertaining to agency claims, so the public can make their own judgements, based on the science. Knowing the details is essential to informed public comment.

Remarkably, the analysis for Primary cavity excavators (PCEs) does not even disclose all the bird species that are PCEs or specifically what the habitat needs are for each of these species. It's important to know which species are PCEs because: "Thomas (1979) indicates that 62 species use cavities created by cavity excavating birds in the Blue Mountains of Oregon." (DEIS p. 91, par. 5) And that's the end of the science cited for the section on PCEs, as if the related science abruptly stopped in 1979.

The DEIS also fails to provide the usual explanation of DecAID and the important caveat that DecAID tolerance levels cannot be used to determine or ensure species viability. There is not even disclosure of what a 50% tolerance level means, or that the tolerance levels for bird species requiring snags goes up to 80%, , not just 50%. 50% means only that half of the species' population may use habitat with that snag density for that specific size of snags. Thus a 50% tolerance level could mean that half of the population has dispersed, looking for more suitable habitat, or that half of the presumed population has died. That current snag levels meet only 50% tolerance levels for "several species" that remain mostly unidentified, is not reassuring. There is no methodology disclosed that shows how DecAID was used to reach this conclusion. For instance, did the Forest Service just average out the deficit for snags in moist habitats with the greater abundance of snags in drier habitat in order to claim that the 50% tolerance level was met for "several species"? This would be an egregious misuse of the science, if so. Why are other species that theoretically have the snag abundance for a meager 50% tolerance level not named? Without knowing the methodology used, it seems odd that three species with very different habitat needs would all reach the 50% tolerance level for snags. White-headed and Blackbacked woodpeckers and marten have very different needs for snags. White-headed woodpeckers and marten need large snags for nesting and denning respectively, but marten may use more species of snags, and Blackbacked woodpeckers need more abundant snags that don't need to be as big.

Our handwritten comments on effects to Primary cavity excavators pick up from here on pages 35-39.

The effects analysis for PCEs regarding down wood/logs neglects to disclose current levels of down wood in the Ellis project area and whether they meet Forest Plan standards for down wood. The analysis also fails to make any attempt to quantify how much down wood would be left under each of the action alternative's extensive commercial logging, biomass/fuel reduction, hazard tree removal, and road

construction and re-opening of closed roads, as well as prescribed burning, and whether those consequent changed down wood levels would meet Forest Plan standards for down wood. Without in-depth analysis and quantification, the chances of all that management—including a lot of it in contiguous huge blocks—meeting Forest Plan standards is extremely low, based on our post-timber sale field experience.

(See the 2nd par. of p. 39 of our handwritten comments for the rest of our comments regarding PCEs.)

Rocky Mountain elk:

Notably, the DEIS analysis admits in regard to Rocky Mountain elk that: "They are primarily grazers, but also require dense forested stands for hiding cover. These stands are used for escaping predators (including humans) and during periods of high disturbance, including hunting seasons." This is why just closing more roads will not provide elk security habitat in the wake of widespread removal of forest cover in contiguous blocks, largely eliminating the denser forest that elk select for security habitat. All the action alternatives would remove significant amounts of elk security habitat with denser forest conditions. The greatest loss of elk security forest cover would be from alternatives 2 and 5, which promise the most road closures, which alone do not ensure elk security habitat. Cougars and wolves are not dependent on roads to predate upon elk. Elk are not likely to keep using forest that has been reduced to very open stands on a landscape scale. Alternatives 2, 4, and 5 all target the most prime elk habitat in the moist mixed conifer forest in the north half of the sale area for massive removal of forest cover, based on density reduction. Alternative 3 would avoid most of the commercial logging proposed for the moist mixed conifer and Lodgepole pine forest types, both of which are favored by elk. No Action would be the most beneficial alternative for retaining elk security cover, but not for reducing human disturbance.

The 30% elk security goal across a large landscape is a valid goal, but it not only requires extensive road closures and road decommissioning, but also retaining a lot of elk and deer security forest cover—denser forest.

While non-commercial thinning, and prescribed burning in dry forest types could improve forage availability for elk, the key cumulative negative effect on forage in the Ellis area is over-grazing by cattle, which must be addressed to increase wildlife forage abundance and quality.

See more comments on effects to elk in our handwritten comments on pages 40-50.

Elk distribution is not just determined by road densities, as implied in the description of effects to elk under alternative 1. (See DEIS p.94, par. 1) The Forest Service needs to take action to reduce the influence of other cumulative effects, including cattle over-grazing and over-hunting, to reduce elk displacement.

Analysis of effects of the action alternatives to elk security ignores the continued need for elk security habitat—including retention of denser forest. The analysis claiming that "Alternative 5 will improve elk security to the recommended 30% or better for the project area" demonstrates the omission of the reality that elk greatly prefer denser forest and are unlikely to stay in a barren, heavily logged landscape. The analysis also claims that "Alternatives 2 through 4 will still improve elk security"—somehow, after landscape scale removal of contiguous huge blocks of forest cover. Effects to elk would be particularly negative if the logging and biomass reduction ("fuel breaks") are focused on the primary elk security habitat in the northern part of the sale area, which consists of moister mixed conifer forest and Lodgepole pine forest. Only alternative 3 and No Action would avoid removing most of the naturally dense forest in the north end of the Ellis planning area on a landscape scale.

This false dichotomy of more road closures versus less logging is a classic example of trying to force environmentalists to support the most intense logging proposed, combined with devastating large tree removal. This false choice is set up by restricting improvement of elk security (with regard to reducing road disturbance) at the full recommended 30% of the project area to only the heaviest logging alternative, alternative 5.

See continuation of our comments re: effects to elk in pages 43-46 of our handwritten comments.

Based on Figure 3-8 on DEIS p. 95, all the action alternatives would entail removal of an extraordinary amount of forest cover and hiding and thermal cover for elk, all at once (over about 3 years of commercial logging and up to 10 years for the non-commercial thinning and prescribed fire) and over a huge area. While alternatives 2 and 5 would remove the most forest cover, leaving extreme devastation of forest wildlife habitat and loss of carbon sequestration and storage in its wake, the levels of lost "satisfactory" thermal cover (loss of mature to large trees) in alternatives 3 and 4 are also unnerving and unwarranted. A timber sale at the scale of alternatives 3 or 4 are still unprecedented for the scale of commercial logging and other management being done all at once. Such a large scale timber sale with high intensity logging would be a great shock to ecological functions and wildlife that may be so severe as to cause local extirpation of multiple wildlife species dependent on mature forest cover, multilayered canopy, old growth forest structure, and water retention. This landscape scale shock could potentially threaten the existence of resident elk; goshawk; marten; Pileated woodpecker; Gray wolf; and potential Canada lynx and Pacific fisher; and many Neotropical migratory songbirds in the area, as well as Threatened Mid-Columbia steelhead trout; Sensitive Redband trout; and Columbia spotted frog.

See p. 47 of our handwritten comments for our comments on the last par. of DEIS p. 95.

Ever since at least the second Bush administration, the official public relations narrative to promote more commercial logging has been to take advantage of public fear of fire. This gets taken from reasonable concerns to ridiculous stretching of the truth, such as by claiming that a large scale fire of high severity would result in "a reduction in edge habitat between cover and forage areas" (DEIS p. 95, par. 1), when actually high severity wild fire, like other wild fires, tend to burn in a mosaic, creating a lot of edge habitat, as well as openings for elk forage. Further, it's not just wild fire that degrades elk habitat through a loss of cover, but definitely also the effects of landscape scale logging, such as that planned for alternatives 2, 3, 4, and 5. (See the last sentence of par. 1, DEIS p. 95)

Transportation:

There is no justification provided for keeping Maintenance Level 2 roads open and maintained. As I have pointed out elsewhere in these comments, there are funds available for restoration that should be used to fully decommission many miles of road that the Forest Service has not been able to maintain. Logging is not "restoration". Road decommissioning is a valid part of ecologically sound restoration.

The Forest Service should not be planning to re-open closed roads and build so-called "temporary" roads when they admit that: "Currently the Ellis project has many ML-2 roads in need of repair, however the Forest Service only has the funds to repair ML-3 and above roads on a regular basis." (DEIS p. 97, last par.) The National Forest road system is absurdly and detrimentally excessive already, as demonstrated by it being more extensive than the U.S. highway system, with a combined length long enough to reach the moon and back. The existing network of too many open roads in Ellis, along with associated hunting throughout the area, is causing elk to become refugees, emigrating to private lands. Then the analysis admits that: "Without the funds from timber sales, the roads in the Ellis project area will continue to deteriorate in the short and long term." (DEIS, p. 97, last par.) Obviously the Forest

Service needs to change it mission so as to stop blindly destroying forest ecosystems through endless cycles of logging and roading at an unsustainable scale, pace, and intensity. We are strongly opposed to building "temporary" roads and haul routes and re-opening closed roads that have not been maintained for seasonal use. Instead we are in favor of fully decommissioning roads that were closed due to ecological damage, the need for wildlife security, hydrological connections to streams, and/or due to being built on unstable slopes, causing erosion. Roads affecting water quality, including those within RHCAS, and roads that are redundant, unnecessary, overgrown, or effectively blocked should also be fully decommissioned. This would save taxpayers a lot of money and would help restore badly damaged ecosystems and restore elk and other wildlife species.

It is not at all clear that the No Action alternative would "be most detrimental to those who value non-motorized access and solitude in the Forest." (DEIS p. 98, 1st par.) We support the No Action alternative over the action alternatives due to No Action meaning no more commercial logging and no more road construction and no more re-opening of closed roads to the detriment of wildlife species, recreationists, soil fertility, and biodiversity, as well as to carbon sequestration and storage badly needed to reduce extreme climate change. The No Action alternative would at least temporarily stop the cycle of destruction in the Ellis area, which is nearing the point of no return due to excessive resource (life source) extraction.

The open road density analysis is deceptive in that it avoids discussing the impacts of re-opening closed roads, building new "temporary" roads, and leaving most of these roads not fully decommissioned. Closed but un-decommissioned roads still fragment the forest, and increase access for ATVs; hunters; livestock; illegal firewood cutting; fur trapping; and introduction and dispersal of exotic invasive plants. Alternative 5 would be the worst in this regard, along with causing the most destruction of forest cover needed by wildlife. Alternative 3 would not build "temporary" roads and would likely re-open the least closed roads among the action alternatives, although that is not considered in the analysis.

The Forest Service should have defined for the public what is meant by the ML road classifications. The meaning of the whole road analysis is obscured by the DEIS failure to define the maintenance levels. If these were clear, readers could suggest their choices of which roads to close or leave open.

While we support closure of all un-maintained roads, we are more interested in them being fully decommissioned so as not to be "stored" for the next timber sale. We oppose the contradictory re-opening of closed roads, which would largely offset planned road closures, as many of these roads would be reconstructed, with most never fully decommissioned. Most "temporary" roads are never fully decommissioned and are used for the next timber sale as "existing disturbance", along with skid trails, becoming de facto system roads and skid trails that are not allowed to fully recover. We are strongly opposed to the construction of "temporary" roads.

The DEIS recognizes that "roads that remain open to motorized use will see more traffic and those roads would likely require maintenance more often and slightly increase maintenance costs and deferred maintenance costs over the long term." (DEIS p. 99, 1st par.) So how would the Forest Service pay for increased maintenance for roads that would remain open or be re-opened from being closed? Alt. 5 would be the worst for increasing the mileage of unmaintained but accessible roads, along with alt. 2, and next worse with alt. 4. Alternative 3 not being associated with any road decommissioning and not closing as many miles of roads as the other action alternatives is a typical Forest Service blackmail tactic against environmentalists.

The transportation effects analysis fails to identify the mileage of closed roads that would have to be reconstructed to be re-opened and used, and also fails to identify the reasons for these roads being closed.

It is standard on the Malheur National Forest to disclose the status of roads that would be re-opened, closed, or decommissioned, which helps the public to see why roads would be closed and which ones are not in use.

See more of our comments on transportation effects in our handwritten comments on p. 53.

Socioeconomic effects:

As with the effects section for Rocky Mountain elk, the Socioeconomic effects analysis falsely assumes that elk security habitat only consist of higher mileage of road closures, not on forest thermal or hiding cover, even those there are Forest Plan standards for "satisfactory" (thermal) cover, marginal (hiding) cover, and total cover for elk. Elk need thermal protection from high heat and severe winter storms and hiding cover to protect them from predators, including human hunters. Alternative 5 certainly doesn't provide the highest level of elk security habitat based on elk forest cover needs, as alternative 5 would log the most heavily, removing forest cover across large contiguous blocks of what is now their preferred denser forest habitat in the moister mixed conifer and Lodgepole pine forest, and also in the denser forest in the Ponderosa pine/Douglas fir forest type, especially along riparian zones with streams and meadows. Too much opening of forest next to meadows and streams could reduce elk use of these areas due to lack of adjacent hiding cover. The "values for wildlife" section of the Socioeconomic effects analysis seems to be either very uninformed or extremely biased toward heavy logging.

The false over-generalization that "Thinning projects, such as the Ellis project, generally benefit elk and other wildlife species (Wildlife Report)" is unsubstantiated in the DEIS analysis and shunts any rationale for this extremely broad claim to the "Wildlife Report" outside the DEIS analysis. This is inadequate analysis, as many wildlife species, including elk, do not always benefit from commercial logging (aka the euphemism, "thinning").

Then the cumulative effects analysis makes the huge fallacious leap to claim that: "Therefore, the action alternatives have positive cumulative effects on people's values for wildlife, comparted to Alternative 1", which is nonsense. Blue Mountains Biodiversity Project supporters certainly don't prefer recent logging evidence for their wildlife experience. Most people value more pristine conditions for experiencing wildlife.

Recreation and Scenery:

Re: Table 3-39 on DEIS p. 103: Recreational and scenic values are not just based on recreational access and scenic quality only considered along road 53, but on overall forest conditions and wildlife diversity.

The Recreation and Scenery effects analysis continues the trend of not identifying or describing the Management Area classifications and relevant Forest Plan standards and guidelines in the text of the analysis. Instead, only "Resource Indicators" and "Measures" used are identified in Table 3-39 on DEIS p. 103, depriving the public of full knowledge of Forest Plan requirements and whether they would be met.

For instance, "Achievement of Management Area A4 Standards" is included in Table 3-39, but the standards requirements are not disclosed. Nor are MA standards for MA A1, A6, and A9 disclosed, although the analysis claims to consider effects to those Management Areas.

Heaven forbid that the Forest Service could allow "Forest vegetation to grow", insects and disease to create openings as a natural disturbance, and wildfire to periodically occur, as in the No Action alternative! These are all natural processes that support biodiversity, habitat niche creation, and self-

thinning of the forest as a self-regulating ecosystem. Instead, the Forest Service would treat the forest like a manicured lawn, complete with mowing, tree felling, pruning, burning, and herbicide use. The No Action alternative for Recreation and Scenery is highly biased in its description, as if the action alternatives would prevent or significantly reduce these natural processes, and as if it is desirable to suppress natural processes through unnatural management manipulations.

The No Action alternative analysis is further biased and inadequate in its failure to acknowledge that widespread logging, road construction and reconstruction, and burning would also "remove vegetation from thousands of acres,…remove cover for wildlife, produce an influx of sediment into fish habitat, and increase water temperatures due to loss of shade" (if conifers were removed near streams) under all the action alternatives—definitely, and on a huge landscape scale, and over a relatively short time period, not just wildfire. Wildlife and plant species are adapted to wildfire, not to logging.

None of the action alternatives should propose management in Management Area A1, based on the MA-A1 goals to provide "non-motorized recreation opportunities in an area characterized by a predominantly natural or natural appearing environment with minimum sights and sounds of human activity." (DEIS Appendix B, Table B-1, p. 181) There is no need to create "fuel" breaks along a hiking trail. This is ridiculous. A lot of the trail system is in open country with various directions to escape from wildfire. In general, there should be no "fuel" breaks or commercial-size logging along hiking trails or in MA A-1, which are meant to be a primitive experience for recreationists. Stumps and burn piles would largely disrupt and degrade the semi-primitive recreational values. See DEIS admissions that "fuel break activities would detract from a natural appearing landscape for up to 3 years after treatment [logging and burning] and each time the fuel break is maintained…." (DEIS p. 106, 1st full par.) This would perpetuate a long-term unnatural appearance, contrary to the goals of MA-A1. Stumps can take decades to not be evident.

The Forest Service should not be planning to violate Forest Plan standards, guidelines, and goals, as with the Forest Service original intention to create unnatural fuel breaks in MA-A1 under alternatives 2, 4, and 5, while admitting on DEIS p. 106, first full par., that "There would be no fuel break treatments proposed in Alternative 3 so impacts to A1 and a Semi-Primitive Non-Motorized condition would be consistent with Alternative 1." This implies correctly that Alt. 3 would be the only action alternative that would comply with MA-A1 goals.

See our handwritten comments on pages 54-69 for our further detailed comments on effects to recreation and scenery.

Comments on the Hydrology and Aquatic Species sections of the DEIS will be sent by Paula Hood, Co-Director of Blue Mountains Biodiversity Project.

The rest of our comments on the DEIS analysis are handwritten, as I was running out of time to submit these comments due to other work responsibilities. Following is a table of contents for locating the handwritten comments on other sections of the DEIS:

Inventoried Roadless Areas: pp. 101 Appendix C: Cumulative Effects: p. 101
Forest Vegetation: pp. 102-121 Fire and Fuels: pp. 121-129

Some sample excerpts from our handwritten comments:

American marten:

The DEIS analysis admits that "Action Alternatives 2, 4, and 5 will cause significant negative effects to marten source habitat within the project area." (DEIS p. 89, par. 5) However, contrary to the DEIS focus on "short-term" effects, effects to marten habitat would be very long term, likely taking more than 80 to 100 years to become suitable marten habitat….(p. 17)

The DEIS admits that Alternative 3 would have much less impact on marten source habitat: "Alternative 3 will have a slight impact on marten habitat, since mechanical treatments are not proposed in old forest structure or cold and moist upland forest types." (DEIS p. 89, par. 5) By contrast, "Alternative 2 and 5 would have a 56% (14,021 acres) reduction of source habitat in the project area." (DEIS p.89, par. 3, emphasis ours) This is an enormous loss of marten source (reproductive) habitat in the project area that foreseeably would result in loss of marten viability in the project area, in violation of the National Forest Management Act (NFMA). Notably, even without logging large live trees >/= 21" dbh, as in Alternative 5, Alternative 2 would also reduce source habitat for marten by 56% or 14,021 acres. This represents a major departure from Forest Service timber sales in the past, as it would wipe out over half of a Management Indicator species' source habitat with one landscape scale timber sale "project" all at once. (p. 18)

Alternative 4 isn't much better, in that it would wipe out 43% of marten source habitat all at once….The cumulative effects analysis should not just be confined to the project area when the species' viability is determined on the Forest scale. Further, the cumulative effects analysis is only three sentences, which do not qualify as the requisite "detailed" and "in-depth" analysis required by the National Environmental Policy Act (NEPA). (See DEIS p. 89, par. 6:) "Ongoing, proposed, and past activities which have cumulative effects include multiple thinning projects." Not only are these "multiple thinning projects" not described as to acreage, location, forest type, or intensity of effects to marten, but "thinning projects" are not the only management and public actions that affect marten. There is no analysis consideration of past clearcutting (not just "thinning"); high-grading (also not just commercial thinning); forest fragmentation and creation of big openings that marten typically won't use; or fur-trapping. This is not adequate cumulative effects analysis by any stretch of the imagination. Further, the effects description is just stated as: "It is expected for these projects to have the same effects as described for this project." (DEIS p. 89, par.7) It can't be assumed that all the prior "multiple thinning projects" have the same effects as described for this project, as the effects of the Ellis Project are on a much larger landscape scale than past commercial timber sales, and the effects of the Ellis sale would occur at a much larger scale all at once, under one decision. Further, there is the significant difference that marten used to be more abundant historically, and when earlier timber sales took place, whereas now the marten is ranked as Vulnerable and at risk of extirpation and extinction. So the effects of such a large timber sale to the existing marten population would be more acute, and more likely to cause an upward trend in federal listing and potential local extirpation compared to past timber sales longer ago. NEPA was designed to ensure good disclosure, detailed in-depth analysis, and public process to support informed public response. Even if some of the inadequate analysis is corrected for the Final EIS, the damage is done for public disclosure and detailed analysis intended to inform public comments.

The Effects determinations are also based on DEIS analysis. The Effects determination for marten is based on the false assumption that loss of a full 10% of marten source habitat across the entire Forest

from the Ellis sale alone (also unprecedented) would not threaten marten viability and would not lead to federal listing, with no substantiation, studies, or other evidence to support this conclusion. This includes no disclosure or analysis regarding ongoing logging and biomass "fuel" reduction on the Forest scale that will result in marten source habitat loss: "Although these effects are significant to source habitat in the project area it is expected that marten populations forest wide will remain viable and actions will not lead to federal listing." (DEIS p. 89, par. 7) Just saying so is not enough. The DEIS fails to disclose the population numbers of American marten on the Umatilla National Forest, their reproductive success rate, their viability threshold, and the percentage of the total marten population that is in the Ellis area. Without this information, population viability cannot be determined or ensured. " (pp. 19-21)

Pileated woodpecker: Similar to the analysis problems for American marten and the astounding magnitude of planned loss of suitable source habitat for both species:

The assumption of potentially 25-56 breeding pairs of Pileated woodpecker,…indicates that the Ellis area is a stronghold for Pileated woodpecker populations. We are appalled that the proposed Ellis timber sale management actions would log and otherwise degrade such a high proportion of the existing suitable Pileated habitat: 41,402 acres of the 43,578 acres of Pileated source habitat, with the same acreage of management detrimental to Pileated woodpeckers under Alternative 5, with the additional crippling removal of large trees up to 30" dbh…." (p. 26)

About 95% of the Pileated source habitat would likely no longer be suitable for Pileated woodpeckers under alternatives 2 and 5, and not much less under alt. 4. Even alternative 3 would remove about 80% of the existing Pileated woodpecker source habitat in the Ellis area….The very high percentage of source habitat removal seems unprecedented within the last 30 years that I have been monitoring timber sales on the Umatilla National Forest. (p. 27)

Recreation and Scenery:

The NEPA requirement for an EIS rather than an EA to document management potential effects to Forest values for an unprecedented large and all encompassing timber sale like Ellis, with landscape scale and highly intensive effects is meant to trigger more detailed, in-depth analysis of potential effects, as well as full disclosure of assumptions, methodology, and science used—within the text of the DEIS itself, to enable readers to comment in an informed way. The Ellis DEIS makes a mockery of this intent by systematically outsourcing key assumptions and methodology and omitting the specific requirements of Forest Plan standards and guidelines relevant to each Management Area. This travesty also circumvents the intent of the National Forest Management Act in designating Management Areas under the Forest Plan with standards and guidelines designed to protect multiple uses and Forest values across the landscape. (p. 54)

Soils:

Obviously, just trusting the Forest Service to use "the proper application" (which remains undefined) of "mechanical activity, fuels treatments, and Project Design Criteria" has not worked in past timber sales in the Ellis area to keep the impacts "short-lived" and "not decrease soil productivity in the long term" when there are still long-term detrimental soil impacts evident from past timber sales up to decades ago, such as the acknowledged "soil compaction, displacement, erosion, and less woody material than natural conditions within the current project boundary." (DEIS p. 121, 2nd to last par.)….Yet the DEIS does not even disclose the specific "Forest, Regional, and National recommendations" or how they would be met by the Project Design Criteria. The consistency of non-disclosure of critical information to the public for evaluating the severity of potential impacts is glaring.

The DEIS analysis continues this non-disclosure trend by not allowing the public to examine data on "current forest-wide soil quality conditions and trends as the basis for determination" if soil quality objectives, standards and guidelines are met and are in accord with current scientific knowledge." (DEIS p. 121, last par.) There are no science citations, science finding descriptions, or methodologies disclosed regarding how determination of no long-term soil impact being caused was made and how PDCs would keep soil disturbance and overall soil productivity "within levels identified by Forest, Regional, and National recommendations", which are also not disclosed.

All this non-disclosure may also violate Forest Service Manual 2520 Region (R6) Supplement No. 2520.98-1, "which identifies policy 2521.03 which directs forest to assess current forest-wide soil quality conditions and trends by conducting monitoring activities to determine if soil quality objectives, standards, and guidelines are met and are in accord with current scientific knowledge." (DEIS p. 121) This process must have been intended to lead to public disclosure of the consequent findings. (pp. 71-72)

The DEIS needs to demonstrate that resulting conditions will meet Forest Plan standards, which is impossible to do without disclosing known existing conditions in a quantified, sale unit-specific manner and without disclosing the likely percentage per area of detrimental soil impacts that would result from planned ground machinery-based or soil disturbing management actions. (p. 73)

The scale of proposed commercial logging and other mechanical thinning is shocking: "Alternative 3 proposes 42% and Alternative 4 proposes 50% of the total project area for mechanical thinning compared to Alternatives 2 and 5 which propose 77% of the total project area." (DEIS p. 124) (pp. 79-80)

The DEIS cumulative effects analysis for soils admits the contribution of commercial logging to perpetuating long-term soil damage. The startling admission that now commercial logging is being repeated on such an unsustainable rotation of only 10 to 15 years, which does not allow for any significant forest recovery in the interim between timber sales appears on DEIS p. 126, par. 2. (p. 82)

The cumulative effects analysis for soils fails to consider in depth how soil impacts affect plant biodiversity; soil carbon storage; wildlife habitat such as deer and elk forage; but also micro-habitat for riparian species such as aquatic macroinvertebrates that are essential fish prey, and micro-habitat conditions for a wide variety of insects and their predators, such as Neotropical migratory songbirds, and for pollinating insects; and recreational uses such as fishing; hunting; Nature study; Nature photography; camping; and hiking, as well as mushroom and medicinal plant foraging. This is inadequate cumulative effects analysis as it fails to consider effects to all the other Forest values dependent on fertile soil and stable slopes. For instance, logging on steep slopes can cause soil displacement, erosion, and excess fine sediment transport into streams, negatively affecting water quality and fish. Yet none of these cumulative effects are considered in the analysis. (pp. 83-84)

There are many more significant and useful comments in our handwritten comments.

Thank you for your consideration of our comments.

For the Wild,

Karen L. Coulter