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First name: Paula

Last name: Hood

Organization: Blue Mountains Biodiversity Project

Title:

Comments: Please see attached BMBP's edited objection. Thank you, Paula Hood

Paula Hood, Co-Director

Blue Mountains Biodiversity Project

Eugene Office

1560 Chambers St.

Eugene, Oregon 97211

August 27th, 2019

OBJECTOR'S NOTICE OF OBJECTION, STATEMENT OF ISSUES AND LAWS,

AND REQUESTED REMEDIES

NOTICE OF OBJECTION

RE: Blue Mountains Biodiversity Project's objection to the Pacific Northwest Region Aquatic Restoration Project Decision Notice and Final Environmental Assessment

Dear Objection Reviewing Officer,

Blue Mountains Biodiversity Project (BMBP) and Bark hereby formally submit the following objections to the Pacific Northwest Region Aquatic Restoration Project Decision Notice and Final Environmental Assessment (also referred to as "the EA" or the PNW Region Aquatic Restoration EA). BMBP and Bark have secured the right to submit objections and thereby participate in the predecisional administrative review process for this project. BMBP and Bark have submitted timely written scoping comments regarding this project and extensive comments on the Draft Environmental Assessment.

Although not all of the issues raised within this objection are relevant to forests that Bark monitors (i.e., riparian forests covered under PACFISH/INFISH), the issues contained in this objection have enough overlapping organizational concerns that Bark shares the concerns and objections raised in this document. Issues outlined below by the lead objector are also shared by Bark.

Lead objector Blue Mountains Biodiversity Project is a non-profit organization based in Fossil, Oregon. BMBP's stated mission is to defend and restore the natural ecosystems of the Blue Mountains and Eastern Oregon Cascades bioregions on public lands. BMBP is a local environmental non-profit organization, and we have been active in the region since 1991. BMBP has a specific interest in this decision, which has been expressed through participation throughout the NEPA process. Staff, volunteers, and supporters of BMBP live in various communities in and around the project region, particularly in eastern Oregon, and use and enjoy the National Forests in the region extensively for recreation, drinking water, hunting, fishing, bird watching, general aesthetic

enjoyment, family gatherings, viewing flora and fauna, gathering forest products, gathering and using edible and medicinal wild plants, and other purposes. The value of the activities engaged in by BMBP volunteers, supporters, and staff may be damaged by the implementation of this project.

Bark's mission is to bring about a transformation of public lands on and around Mt. Hood National Forest (MHNH) into a place where natural processes prevail, where wildlife thrives and where local communities have a social, cultural, and economic investment in its restoration and preservation. Bark has over 25,000 supporters who use the public land lands surrounding Mt. Hood, including the areas proposed for logging in this project, for a wide range of uses including, but not limited to: hiking, skiing, nature study, non-timber forest product collection, spiritual renewal, and other recreation. The value of the activities engaged in by Bark members and staff will be affected by the implementation of this project.

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

Paula Hood

1560 Chambers St.

Eugene, Oregon 97402

Request for meeting

BMBP requests a meeting with the Forest Service to discuss matters in this objection and seek resolution of concerns through negotiation.

Blue Mountains Biodiversity Project is supportive of the following proposed actions in the PNW Region Aquatic Restoration Project EA:

Fish Passage restoration, including Culvert repair and replacement

Blue Mountains Biodiversity Project fully supports restoration activities such as those addressing fish passage barriers (ex: culvert repair, removal, or replacement) and decommissioning, removal, or closure of roads (such as non-system roads as proposed here), the abbreviated analyses and public review per each project are appropriate.

The EA on pg. 3 notes that "over 3,000 fish migration barriers in perennial streams within the region. The USFS also notes that at the current rate of repairs, it will take over a century to complete essential restoration work in the region. We wholeheartedly agree that it is unacceptable for such excessive delays with regard to fish passage barriers and culvert repair or addressing other road-related issues. We agree that the pace and scale of these restoration activities that address fish passage barriers and other road-related issues needs to be sped up considerably, many times over the current rate.

Road decommissioning, such as the proposed decommissioning of nonsystem roads

BMBP fully supports aquatic restoration actions such as the decommissioning, obliteration, and/or closure of roads (including nonsystem roads), especially those roads which are causing negative impacts to aquatic ecosystems.

It is not clear what the implications of are of the EA if the National Forest does not have a Travel Plan. The EA (pg. 9) notes: "[t]he modified proposed action limits decommissioning to non-system (unauthorized) routes, consistent with each Forest's travel management decisions and associated motor vehicle use map. Travel

management subparts A and B must be in place for these actions to occur and no system roads or trails would be decommissioned." Since the Malheur and Wallowa-Whitman National Forests do not have Travel Management Plans, would there be no decommissioning of nonsystem roads on these forests under this proposal? Why must the travel management plan be in place to remove illegal roads that are further exacerbating the ecological, economic, and safety hazards that are currently present due to the bloated road networks on these forests? It is also not clear why this EA only applies non-system roads. The PNW Region Aquatic Restoration Project should include removal of system and nonsystem roads. At the very least, nonsystem roads should be included for removal in the Malheur and Wallowa-Whitman National Forests. The streams and ecosystem integrity of these forests should not be further damaged by illegal roads simply because the Forest Service has dragged their feet on completing Travel Management in these forests. Please see our attached exhibit which includes BMBP's recent letter to the Office of the Secretary of Agriculture for more detail on some of the road-related issues specific to the Malheur as well as the region.

Other proposed actions we generally support:

- * Small dam removal (though it is still not clear why the EA limits the proposed actions to small sized dams. We are under the impression that part of the purpose of this project to speed up some of the restorative actions, including some that are already covered under ARBO II?)
- * Bull trout protection, such as removing Brook trout
- * Fencing to protect riparian restoration projects from 'other land uses' (we are assuming this refers primarily to livestock grazing).

- * More intensive monitoring of subwatersheds that support ESA-listed fish and other aquatic species is needed, as well as more serious consideration by the USFS of excluding cattle from high priority watersheds that support ESA-listed fish, especially if there are issues with permittee violations or struggling ESA-listed fish populations.
- * In-channel nutrient enhancement
- * Piling and other structure removal (ex., mine tailings)
- * Reduction and rehabilitation of recreation impacts

- * It is unclear why the project doesn't include closure or relocation of recreation sites that maybe causing damage to riparian areas or riparian restoration projects. Even if it's covered under ARBO II, isn't part of the intent of this project to speed up some riparian restoration projects, including some that may be covered under ARBO II?
- * Setbacks or removal of existing berms, dikes, or levees
- * Aspen and hardwoods restoration
- * We are also supportive of some hardwood replanting and restoration--particularly in the widespread and often decimated areas that have been overgrazed by livestock. However, we note that livestock exclusion is necessary to protect riparian restoration efforts and the ecologically beneficial outcomes of these projects in many areas. We have serious concerns based on our experiences with tracking and commenting on projects on National Forests in eastern Oregon.

- * Aspen and hardwood stands will not be restored without excluding or removing livestock in order to protect these stands.
- * Large conifers should not be felled. Aspen and hardwood stands often contain areas (such as microhabitats/topographically variable areas) with conifers that have historically coexisted with hardwoods, and in which there are large and old conifers present. Large and old conifers should be retained. Mid-sized and younger trees should also be retained in these areas to ensure eventual old-growth and snag recruitment.
- * The biodiversity contained in old growth conifers within aspen/hardwood stands should be protected.

Important caveats and cautions:

We are very concerned about heavy machinery in riparian areas, especially within the floodplain and/or the

stream channel. We recognize that for many of the proposed actions require the use of heavy machinery, such as removal of legacy structures (mine tailings, etc.) restoration of floodplain and channel connectivity, beaver dam analogs, etc. However, extreme caution is warranted when using heavy machinery in riparian areas and stream channels.

In addition, while these proposed actions provide important restoration opportunities that are likely to be ecologically beneficial in the long-term, we are very concerned that some are less well-studied and have not been implemented until relatively recently, and are therefore land managers have less experience with them (such as beaver dam analogs). The potential for mistakes and unintentional negative consequences is high (please see much of the history of riparian management by the USFS, which has included removing wood in streams, placing weirs and riprap which often did more ecological harm than good, etc. Further, we are concerned that such actions do not adequately consider potential cumulative impacts to water quality parameters and stream habitats from commercial and noncommercial logging both in the uplands and within riparian areas/RHCAs, livestock grazing, roadrelated issues, and climate change.

Other proposed actions we generally support but may have concerns about potential issues associated with the proposed action:

Placing wood in streams

BMBP has concerns regarding down wood. We want the USFS to assure that plenty of large and midsized trees remain in riparian areas in order to retain:

- * Plenty of remaining large and mature trees to provide for the needs of wildlife and ecosystem processes
- * Felling of trees should not reduce amount of LOS or move forest conditions away from LOS conditions
- * Plenty of snag, and dead wood recruitment an.
- * Enough density remains for wildlife cover and to maintain connectivity corridors

No logging/tree felling in mature and old growth forests should occur beyond what is necessary to meet forest plan standards for wood in streams. Such activities should exclude pristine, never-logged, otherwise healthy streams[mdash]especially those that are close to achieving Forest Plan standards for wood in streams.

We support the encouragement of beaver and beaver reintroductions

Beavers are crucial to restoring streams ecosystems in the region. We fully support beaver reintroduction, and/or the encouragement of beaver recolonization through the restoration of appropriate conditions. BMBP has some concerns regarding beaver analog dams. We are concerned they may create unintentional negative impacts such as raising stream water temperatures and creating fish passage barriers. We are also very concerned that beaver analog dams will increasingly become prioritized, rather than reintroducing and restoring of actual beaver on the landscape.

Proposed actions that BMBP is extremely concerned about and/or do not support:

BMBP does not support or agree with the abbreviated analyses and public review process as proposed here for 'vegetation management' in RHCAs/riparian areas. We also have concerns with extensive implementation of more controversial or less-well-studied activities such as beaver dam analogs and extensive prescribed fire (including 'vegetation management' associated with prescribed fire proposals) in streamside corridors.

Extensive prescribed fire and riparian 'vegetation management' is likely to exacerbate effects from commercial and noncommercial logging and prescribed fire already occurring across the landscape, much of which has not been adequately analyzed for cumulative effects. Many commercial timber sales in eastern Oregon now include

logging (commercial and/or noncommercial) within riparian areas/RHCAs. Most of these sales are EAs rather than EISs, despite being back-to-back sales with many miles of logging within RHCAs and several thousands of acres of proposed commercial logging in the uplands. Many of these sales have not considered the quantitative or qualitative cumulative impacts their NEPA analyses, and so do not adequately examine cumulative impacts to streams, water quality, and ESA-listed or sensitive aquatic species.

Further, we are concerned that the proposed actions in this EA also do not adequately consider potential cumulative impacts to water quality parameters and stream habitats from thinning within riparian areas/RHCAs, and that they have not adequately considered other issues such as widespread livestock grazing, road-related issues, and climate change.

BMBP's objections to the Pacific Northwest Region Aquatic Restoration Project focus in large part on logging within RHCAs and riparian areas. BMBP is very concerned that logging ("thinning" or "vegetation management") has been lumped in with other less controversial forms of aquatic restoration activities. Logging in riparian areas is risky, experimental, scientifically and publicly controversial, and has speculative and unsubstantiated outcomes. BMBP has tracked, field surveyed, and submitted detailed comments on a number of projects that include streamside logging on National Forests in eastern Oregon. Given the intensive silvicultural prescriptions associated with noncommercial logging for these "restoration" projects, we are extremely worried that the Pacific Northwest Region Aquatic Restoration Project will have long-term negative impacts across the project area and the region due to the inclusion of noncommercial logging as part of this project. (Please see discussion further down in these comments for examples of specific projects). Other actions, such as prescribed burning, fire suppression in the form of low and moderate severity burns in areas that historically had high-severity fires, riparian planting (including of conifers), and widespread use of heavy equipment, may also have significant negative effects on stream temperature and sediment levels, forest structure, and natural processes.

The extent and intensity of 'vegetation management' (i.e., the felling of conifers) in relation to proposed actions including placing large wood and prescribed burning is not made clear in the EA. If, as is stated on page 108 of the EA that 'vegetation management' will only equal approximately 30 acres over the life of the project, then BMBP has little concern about this aspect of the proposals contained in the EA. However, the EA suggests in other places that it is unlikely that 'vegetation management'. For example, page 105 of the EA notes that in relation to this project and Inventoried Roadless Areas, "The Regional Forester will review the cutting, sale, or removal of generally small diameter timber when needed to improve threatened, endangered, proposed, or sensitive species habitat. Contact the Regional Inventoried Roadless Area Coordinator for a briefing with the Regional Forester. On page 15 (Table 2) suggests that 'riparian vegetation' will equal 12% of the total projects in the proposed action. We're assuming that 12% of the proposed actions equate to greater than 30 acres. In addition, the characterization of needed large wood for placement in streams (particularly in the DEA) and also the descriptions of prescribed burning, suggest a far greater extent of felling conifers than just 30 acres. It's also not clear if the analyses regarding the felling of conifers ('thinning', 'vegetation management', etc.) includes the felling of conifers that will occur in relation to the above mentioned actions. The EA is chronically unclear and not transparent in this regard, and unfortunately lumps together multiple kinds of 'restoration' without regard to the distinctly different nature and potential effects of those actions.

Given the extensive upland and riparian logging that has taken place across eastern Oregon (and the region), streamside corridors and riparian habitats often contain some of the last-best habitat left, and provide some of the only large trees and old and mature forest habitats left in many areas. They often provide wildlife corridors, source habitats for marten and other species associated with mature and old forests.

No 'vegetation management' or extensive prescribed burning should occur in riparian areas/RHCAs in mature or old mixed-conifer forests, or forests that show evidence of being historically dominated by mixed-conifer forests. This generally includes forests in deep gulches, on north and northeast facing slopes, in higher elevations, on very moist or productive soils, on ash soils, those that are fir dominant or co-dominant, and those containing old

growth fir or mixed-conifer tree species (including stumps).

No logging/tree felling in mature and old growth forests beyond what is necessary to meet forest plan standards for wood in streams. Pristine, never-logged, otherwise healthy streams that are close to achieving Forest Plan standards for wood in streams should be excluded.

Clear prohibitions regarding the intent and kind of riparian vegetation management should be included.

National Environmental Policy Act (NEPA)

Inadequate range of alternatives

The Pacific Northwest Region Aquatic Restoration Project FEA should have included more than one action alternative. The USFS should have considered a wider range of possible actions and outcomes—including those that analyzed, for example, a "no thinning" alternative, an alternative that allowed for wildfire and the associated ecological benefits in some areas, an alternative that was not limited to addressing only non-system roads, and an alternative that allowed for the removal of dams larger than those included in this analysis.

BMBP's comments on the Draft EA for the PNW Region Aquatic Restoration raised both commercial and noncommercial logging as a concern. Our comments were not limited to commercial logging, and we provided specific discussion of our concerns on noncommercial logging, including examples (and pictures) of noncommercial thinning in the Malheur National Forest that are extremely problematic. The Final EA for the PNW Region Aquatic Restoration project notes that the 'commentator' who raised logging in riparian areas/RHCAs as a concern was referring to commercial logging, and so a 'no logging' alternative was not included in the FEA. However, this was not the case—we remain concerned about potential noncommercial logging that may be conducted under this EA, and we very clearly raised these concerns in our DEA comments. Alternatives for this should have included a no logging alternative/i.e., no 'vegetation management' alternative.

The USFS cannot truly address landscape level restoration project of ESA-listed fish and aquatic ecosystems without adequately addressing roads, which are likely the largest driver of water quality problems across the region (along with grazing). While such restoration efforts would have to tie to other plans, such as road management plans, there are certainly foci of aquatic restoration actions regarding roads and livestock grazing that would be appropriate for more actions, further consideration, and in-depth analyses in an EIS for the PNW Region Aquatic Restoration Project. The EA notes that "ARBO II addresses closing or decommissioning roads and trails. The modified proposed action limits decommissioning to non-system (unauthorized) routes, consistent with each Forest's travel management decisions and associated motor vehicle use map. No system roads or trails would be decommissioned". However, it is clear that roads have not been sufficiently addressed in ARBO II or by any USFS actions or plans. The USFS has consistently avoided addressing road-related issues, analyzing widespread negative ecological impacts related to roads, meeting road density standards, and decommissioning or obliterating roads that are causing negative impacts to water quality and ESA-listed fish and other native or special-status species and their habitats. Surely there are roads such as "temporary" roads and skid trails, as well as certain closed system roads, that are having disproportionately negative impacts to water quality and ESA-listed fish that the PNW Region Aquatic Restoration Project could address. We also note that some forests, such as the Malheur National Forest, have yet to complete a travel plan, despite being required for many years to do so. It is essential that the USFS work to address, at a minimum, the roads that are causing the most damage to aquatic systems would be essential for a regional aquatic restoration project. Similarly, additional actions that may address pervasive and severe negative impacts to water quality and ESA-listed fish due to livestock grazing should be considered in an alternative within the PNW Region Aquatic Restoration Project (such as livestock exclusion in certain priority subwatersheds supporting key populations of ESA-listed fish, particularly if there is a history of severe negative impacts in the subwatershed due to livestock grazing).

The "vegetation Management" proposed actions in the Pacific Northwest Region Aquatic Restoration Project proposed actions will not meet/contradicts the Purpose and Need of the project.

The "Need for Proposal" section of the FEA discusses the need to restore ESA-listed fish, water quality, and fish passage. The USFS also notes that (on the eastside) PACFISH/INFISH has been key in addressing management-related impacts. Much of the successful stream restoration that has occurred in the Blue Mountains has been the result of passive restoration. While we fully agree that actions such as removing fish passage barriers, culvert repair, and road obliteration of certain roads are needed, logging (including noncommercial logging or 'vegetation management') will not address or restore the problematic issues discussed in the "Need for Proposal" section of the EA.

High stream temperatures are the most widespread water quality violation across National Forests in the region. High stream temperatures are the most biologically limiting factor for ESA-listed fish and other sensitive aquatic species. Excessive fine sediments in streams are also a pervasive and widespread problem across the region that is limiting to ESA-listed fish and other sensitive aquatic species. Water quality impairments regarding high stream temperatures and fine sediments are both legal and ecological issues for which the Forest Service has responsibility; i.e., streams across the landscape are generally not meeting Clean Water Act and state water quality standards, Forest Plan standards, PACFISH/INFISH RMOs, or the biological needs of ESA-listed fish or sensitive native species. Logging does not address water quality impairments of high stream temperatures or excess fine sediments, and instead exacerbates these problems. Yet logging is the most commonly implemented and emphasized action in practice across the landscape. Note Table 1 in the EA shows that "vegetation" projects (logging and burning projects) were far more common and had disproportionate focus compared to any other less risky or controversial stream restoration. Nothing in the PNW Region Aquatic Restoration Project would prevent the continued prioritization of logging over other more sound, proven, and less risky restoration strategies such as culvert repair. There is a severe mismatch between the actual water quality problems (high stream temperatures and elevated fine sediments) and the USFS responding with logging. Logging fails to address these problems and will likely exacerbate the main problems as well as create others (invasive weeds, soil compaction and erosion, etc.). Logging retards the attainment of Riparian Management Objectives (RMOs) on eastside forests, increases stream temperatures and fine sediments, and decreases large tree and wood recruitment. There is no evidence to suggest that 'vegetation management' as it is being implemented in eastern Oregon would not have negative impacts on stream temperature or excess fine sediments.

For example, what follows is a summary of portions of the silvicultural prescription for noncommercial logging in Big Mosquito RHCAs on the Malheur National Forest which includes very heavy noncommercial logging: For cool moist forest: logging includes the floodplain and upland RHCA, and will include: openings, variable density thinning, and leave patches. Leave patches will consist of approximately 10%-40% of the RHCA. Openings will consist of approximately 15%-25% of the RHCA. Openings will leave 0-40 ft²/ac of basal area of early seral species and will be $\frac{1}{4}$ to 1 acre in size, with the potential to increase that size to 2 acres if stream shading recovers as planned. As little as 10% of the RHCA could be left untreated. Created openings (mini-clearcuts) could be up to $\frac{1}{4}$ of the entire RHCA for that stream reach. These mini-clearcuts may literally have no trees left in them. For warm moist forest: The silvicultural prescription will leave approximately 5%-15% of the upland RHCA untreated as wildlife leave patches, except in Jungle Creek which is designated as a wildlife corridor. For Jungle Creek leave approximately 10%-25% untreated. The floodplain RHCA will have periodic openings $\frac{1}{4}$ to 1 acre in size. The openings will consist of 20%-30% of the floodplain RHCA. Some of the logging in the Big Mosquito timber sale is already complete; some logging is still taking place. Such logging prescriptions are standard in the Malheur National Forest and other eastside forests. There is no reason to assume that such 'vegetation management' will not increase stream water quality or fine sediment loading. The Camp Lick timber sale on the Malheur National Forest has similar silvicultural prescriptions in RHCAs, and in addition includes proposals for commercial logging within RHCAs. Camp Lick is noted as a priority watershed in the PNW Region Aquatic Restoration Project EA, and will ostensibly receive greater prioritization for 'restoration'. Hopefully this restoration does not include any vegetation management, or prescribed fire in RHCAs, which would likely

exacerbate negative impacts associated with proposed logging within RHCAs in the Camp Lick sale.

In eastern Oregon, the USFS is regularly attempting to convert mature/old growth/historic mixed conifer dominant forests into Ponderosa pine dominated forests, even when it is ecologically inappropriate. Unfortunately, this conversion of mature/old forests to more Ponderosa pine dominated forests (often with less complex canopies and with more homogenous structure) has gained a lot of traction on the eastside, especially in the Malheur National Forest.

Table 2 in the EA shows that riparian vegetation projects (logging and burning projects, primarily), will include 12% of actions (based on the percentage of expected outcome). However, a single riparian or RHCA thinning project can and often does include many miles of logging along streams. While "vegetation projects" are shown as constituting 12% of expected outcomes, the number of thinning projects may extend many stream miles and have far-reaching impacts that are not accurately reflected in this 12% figure. In addition, Table 2 notes that "future percentages may vary". There is no mechanism in the PNW Region Aquatic Restoration Plan that would ensure the prioritization of restoration actions that are less risky or controversial than logging. Logging should not be lumped in with other stream restoration actions. Logging fails to address the project need, and would in fact retard restoration of water quality and fish habitat-- the very parameters that the USFS is claiming to restore. Especially if the USFS continues on its current track record for disproportionate prioritization and implementation of logging as "restoration" in RHCAs, we are very concerned about the resultant widespread negative impacts to water quality, fish habitat, and stream ecosystem integrity across the region.

Public engagement and the NEPA process

Our concerns regarding the abbreviated NEPA process are largely focused on the noncommercial vegetation management proposed within streamside corridors. This includes 'vegetation management' and/or felling of trees in relation to clearing trees and vegetation as part of prescribed fire; extensive use of prescribed fire in riparian forests/forests in RHCAs (especially those that are mature/old mixed conifer forests, and those riparian/RHCA forests that are providing important wildlife habitat, and connectivity corridors, etc.); in obtaining large wood for placement in streams; felling trees in order to shift tree species composition, etc.

We are extremely concerned that projects taking place under the PNW Region Aquatic Restoration Project EA would not allow for adequate site-specific analyses, transparency to the public, or meaningful public review or substantive comments. In addition, issues relevant to a specific project area that may arise-- such as with riparian logging (including noncommercial "thinning") potentially affecting a genetically important population of ESA-listed fish or other ESA-listed species such as Canada lynx--will not be subject to site-specific review or meaningful public involvement. Lack of site-specific environmental analyses or environmental impact statements would result in lack of accountability, and may create widespread and negative ecological impacts. The lack of environmental analyses and extremely limited options for public review would allow little or no recourse for the public. The PNW Region Aquatic Restoration Project does not define or limit the number of streams or stream miles that may experience riparian thinning (there is an annual constraint, but not an overall project constraint that we are aware of). As discussed throughout these comments and in additional materials we submitted, this is an ecologically risky strategy with unsubstantiated and speculative outcomes. These actions should include site-specific analyses that take a "hard look" at potential site-specific effects on the environment. In addition, risks and unexpected negative ecological impacts can also be associated with less risky aquatic restoration strategies. One does not have to look far back in history to find lessons regarding well-intended USFS stream "restoration" actions with negative outcomes (removal of wood from stream, straitening of streams, placement of damaging weirs, incorrect placing of large wood, use of ecologically damaging rip-rap, and on and on). Even seemingly non-controversial projects can have unintended and negative ecological impacts. Site-specific environmental impact statements and environmental analyses with full public involvement are necessary for sound management and for adherence to NEPA.

The NEPA process should not be circumvented or curtailed for projects such as vegetation management. Relying on expert opinions without transparency or public oversight has resulted in many poor decisions regarding land management. NEPA came into existence because poor decisions (made by experts) made it very apparent and widely recognized that a dramatic shift towards transparency, standardized environmental review that takes a 'hard look' at how actions may affect the environment, and public oversight was necessary to protect human health and the environment.

Vegetation management, as well as extensive prescribed burning in riparian areas (particularly in moist/productive forests such as in mature/old eastside mixed-conifer forests), have not been shown/well established to be beneficial. Table 1 of the EA shows that 9,845 acres of upland and riparian vegetation have been "restored" through ARBO II on National Forest System lands from 2013 to 2017. In contrast, just 281 miles of aquatic organism passage has been restored, and only 130 miles of habitat restoration regarding road decommissioning and stormproofing has occurred. Unfortunately, this shows a lack of political will from the Forest Service at large with regard to addressing road-related and fish passage barrier issues. This does not suggest a problem with the speed of NEPA, as almost 10,000 acres of logging was carried out under ARBO II in just a few years (likely this logging was mostly commercial in the uplands and a combination of commercial and noncommercial in riparian areas—please clarify if BMBP is wrong about this assumption). These figures also point to the consistent implementation of logging-related perceived fixes by the Forest Service—often to problems that are only exacerbated by logging, not fixed. It is not clear if the floodplain and side channel restoration included in this table may refer to, for example, felling conifers in the floodplain. Circumventing the NEPA process will exacerbate the issues discussed here.

As mentioned, we are also concerned about the potential unintended negative impacts such as increased stream temperatures and retarding or blocking fish passage in some cases. Beaver dam analogs have not been well-studied or time-tested. Most of our concerns regarding beaver dam analogs can be remedied by implementing clear guidelines for monitoring and an adaptive management framework.

Failure to analyze direct, indirect, and cumulative impacts:

The preservation of clean, cold water, large blocks of core habitat, wildlife corridors, carbon sequestration (most in mature/old growth/never logged forests) should be prioritized on National Forest lands. Activities such as culvert repair and replacement and road decommissioning are good steps towards these goals. However, thinning and widespread prescribed burning in streamside corridors is a risky and experimental strategy, and is scientifically and publically controversial. The USFS has not adequately analyzed potential direct, indirect, and cumulative effects associated with logging and burning in RHCAs and riparian areas. The PNW Region Aquatic Restoration Project EA also failed to adequately analyze the cumulative effects associated with the proposed actions and livestock grazing, road density and other road-related impacts, and climate change.

We note that the USFS has, unfortunately, greatly increased number of proposals within the past few years to non-commercially and commercially log within RHCAs, despite PACFISH/INFISH direction and despite the well-documented and recognized gains resulting from passive restoration. Table 1 in the EA shows that almost 10,000 stream miles has been affected by completed "riparian and upland vegetation" (i.e., logging and burning) in the past five years. The PNW Region Aquatic Restoration Project, as written, may also increase the pace and scale of riparian logging and burning (as well as other, less controversial actions). Where is the evidence that this extent, pace, and scale of logging in riparian areas and RHCAs will not have significant and long-term negative effects? What is the biological basis for determining that thinning in RHCAs and riparian areas will not have significant and long-term negative effects in subwatersheds that support ESA-listed fish species?

The USFS provided a list of "examples of present and reasonably foreseeable future actions" as part of the supporting documents for the Pacific Northwest Region Aquatic Restoration Project. While we understand that this list is not exhaustive, we have serious concerns that the cumulative effects analysis does not sufficiently

analyze or include the increasing number of projects across the region (and specifically the PNW Regional Aquatic Restoration Project area) that include logging within riparian areas or RHCAs. Examples of such projects across eastern Oregon include the Gap project on the Ochoco National Forest, the Green Ridge project in the Deschutes National Forest, and the Big Mosquito, Camp Lick, Magone, Ragged Ruby, Austin, and Bark projects on the Blue Mountains District of the Malheur National Forest. All of these projects propose extensive logging across many miles of streamside corridors along dozens of streams. Such projects are being proposed or implemented in subwatersheds that support ESA-listed species and their critical habitats in eastern Oregon and the region, and may overlap spatially and temporally with the effects resulting from the Pacific Northwest Region Aquatic Restoration Project. Many of these projects may occur within the same general timeline for implementation, share adjacent or nearly adjacent boundaries, and affect overlapping habitats and species. This situation creates extensive cumulative effects that must be analyzed in an EIS.

BMBP is very concerned that numerous key ecological functions and parameters will be put at risk from logging and burning in RHCAs/riparian areas, and that these were not adequately considered in the direct, indirect, or cumulative effects analyses. We are concerned about the lack of sufficient analyses regarding issues such as: livestock grazing, large tree and wood recruitment, snags and downed wood recruitment, continued exclusion of wildfire, ongoing USFS management geared towards maintaining low severity fire regimes across the landscape (despite ecological norms of mixed-severity), loss of post-fire habitats created by medium and high severity fire due to continued fire suppression, and climate change. The PNW Region Aquatic Restoration Project lacks any substantive analysis regarding climate change. The Management Plans that this EA tiers to are decades old, and lack new science and understandings regarding climate change. Core habitats, terrestrial and stream connectivity, and protecting and preserving stream shade are sound restoration strategies commonly recommended by scientists in the face of climate change. Please see our addendum discussing such studies for more detail.

The FEA does not appear to have clarified certain issues we raised about the DEA. For example, the DEA stated that "to the extent possible" large logs would come from roadside hazard logging and other large tree logging". Presumably enough logs would be supplied from roadside hazard logging for stream restoration, rather than removed through commercial logging in hazard and "other" logging? A very large amount of large logs are described as needed for this project. The EA notes that an average of 141 logs per project would be needed, with approximately 109 logs needed for each stream mile of restoration. Given the volume of large wood that the USFS says would be needed for the stream restoration projects in this proposal, it does not seem like roadside hazard trees would provide the huge volume/number of large wood logs 'needed' by this project. Are there any circumstances in which this Project would authorize the removal of large trees, including in forests with large tree limits on logging (such as the Forest Plan prohibition on logging trees equal to or greater than 21" dbh on the eastside)? If so, that is very problematic, particularly in eastside forests that have a well-documented and severe deficit of large trees. The EA lumps different class sizes of "large" trees together and defines "large trees" to include 15" dbh to over 21" dbh trees. "Large" trees on the east side are generally considered to be those = or > 21" dbh. This creates a confusing and inappropriate dialog that does not sufficiently consider the different size classes, or the loss of specific classes of mid and large sized wood and trees, or their recruitment. Removing the large amount of large wood, as described in the project, from the surrounding landscape would have a significant impact on large wood recruitment across the landscape and specifically in riparian forests, where they are crucial for wildlife. Removal of this amount of large trees and future large tree and dead wood recruitment may create recruitment gaps for these size classes of trees for decades to come, particularly in combination with other large tree logging. The USFS needs to analyze the cumulative impacts of logging mid-sized and large trees in combination with other large tree logging across the region. The streamside corridors that would be affected are likely to contain a substantial portion of the "last best" fish habitat, aquatic and terrestrial connectivity, and high quality wildlife habitat on the landscape. Such areas also contain some of the last remaining large trees, late seral and mature forests, and complex forest canopies on the eastside because these areas have had more protection relative to upland forests in recent decades. Streamside forests experience disproportionate wildlife use, with many species heavily relying on the forests in riparian corridors for at least one stage of their life cycles.

We are particularly concerned about potential effects to species that rely on complex, multi-story canopies, and later seral or old growth forests (often in riparian forests) such as Northern spotted owls, Pacific fisher, American marten, Northern goshawk, numerous bat species, Pileated woodpeckers, Three-toed woodpeckers, Primary Cavity Excavators, and others.

Additional effects analyses are needed in an EIS for this project regarding actions such as controlled burning and riparian planting. The USFS often seeks to shift tree species composition, and could pursue such projects within the PNW Region Aquatic Restoration Project. However, the assumptions the USFS relies upon to determine what tree species composition and density "should" be is scientifically controversial. Shifting tree species composition and density can cause significant and long-term ecological effects. In some circumstances, effects may be both beneficial and negative. For example, trees may be planted too densely, have too homogenous of a composition, not allow for genetic adaptation and evolution, not be genetically appropriate to a given site, disrupt natural processes and regeneration, etc. Positive benefits would include reestablishment of willows and other hardwoods after severe cattle damage (provided livestock are excluded to allow for restoration). The USFS needs to consider these and other direct, indirect, and cumulative effects in an EIS. Please see our addendum containing discussion on ecological risks of prescribed burning, as well as discussion on replanting. We are particularly concerned about prescribed burning in the spring, during nesting seasons, in areas that disrupt or destroy habitats for at-risk or ESA-listed species, that may displace or kill species such as Northern spotted owls, Marbled murrelets, Johnson's hairstreak butterflies, and others. Projects which may include extensive RHCA thinning or burning, for example, deserve more detailed and site-specific analyses. There is no mechanism within the EA for ensuring that water quality and fish restoration activities are prioritized over "restoring" conifer stand structure or other 'vegetation management' activities.

The action alternative did not adequately consider cumulative effects of ongoing activities on the efficacy or success of proposals in this project.

- * The USFS cannot pretend that cows are not everywhere on the landscape and destroying/degrading hardwoods, stream bank stability, and severely negatively affecting water quality
 - * The EA did not include effects of opening up riparian areas through logging for increased livestock access and therefore more severe impacts.
 - * Restoration efforts will not be successful unless there are widespread attempts to exclude cattle from areas that have been
 - * EA did not include analyses/guidelines/decision tree for determining where hardwood planting is appropriate (for example, may not be appropriate in deeper gulches, steep or northfacing slopes, etc.
- * Also, USFS does not seem to acknowledge or include in their analyses the cyclical nature of hardwoods, fire refugia, and other cyclical processes.

Riparian Vegetation Treatment (controlled burning) includes reintroduction of low- and moderate severity fire into riparian habitat conservation areas. The EA notes that "[t]his activity is permitted in dry forest types east of the Cascade mountain crest and southwestern Oregon. Further, this can be applied to more localized fire-dependent ecosystems, such as oak woodlands, west of the Cascade mountain crest. Conifer thinning may be required to adjust fuel loads for moderate severity burns to regenerate deciduous trees and shrubs. Resulting benefits include restoration of desired levels of stream shade, bank stability, soil erosion and stream turbidity, stream nutrients, large wood inputs, or a combination of these things. Additional benefits include maintenance of late-seral (old-growth) trees, which serve as sources of large wood to streams. Equipment would include drip torches and chainsaws, along with fire suppression vehicles and equipment."

- * Does the above paragraph mean that USFS activities that would manipulate "plant species composition and structure" (e.g., logging and burning) would only apply to low elevation Ponderosa pine forests? While such activities may be problematic in Ponderosa pine forests for all of the reasons discussed, it is nevertheless an

important distinction. Logging in mixed conifer forests is even more controversial than logging in lower elevation Ponderosa pine forests.

* The USFS mis-categorizes forests as "dry" forest types on a relatively regular basis.

* For example, the streamside forests along Trail Creek within the Camp Lick timber sale (Malheur National Forest) is categorized as "dry" in the Final EA, yet the throughout the reach these forests contains huge old growth Grand fir and twinflower (an indicator of moist productive forests). The USFS admitted this stream was miscategorized, yet never corrected this oversight despite the more intense silvicultural prescriptions associated with commercial logging in dry forests within the RHCA along this stream. This is one of many examples that BMBP has discovered while field surveying timber sales.

* We are also concerned about the chronic failure of the USFS to include ecologically important variation in the landscape/micro habitats. The USFS's lack of nuance and variation on the landscape often results in logging and silvicultural prescriptions that are not ecologically suited to a specific site, exacerbating the already negative impacts associated with logging.

BMPs are generally mitigations designed to ameliorate the negative impacts from USFS actions such as logging. They are not restorative, they simply make the USFS action taking place less damaging or degrading. Only a handful of sites on each National Forest are inspected annually for the efficacy of BMPs. It is our understanding that approximately seven sites per year are checked for BMP adherence; of those, only two to three sites are in relation to logging projects. None are required to have an indepth investigation of BMP efficacy. Such a small handful of sites do not adequately demonstrate adherence to water quality standards, or efficacy of BMPs in protecting water quality or stream habitats, and is not in any way a statistically robust representation. This makes the effectiveness of BMPs and PDCs difficult or impossible to verify. Additionally, BMPs and PDCs are overwhelmingly worded to be unreliable and unenforceable, with phrases such as "when practical" or "as necessary" rendering the majority of BMPs and PDCs subjective and optional.

The USFS does not have an adaptive management framework, or adequate monitoring to ensure an adaptive management framework, or even an accurate baseline of water quality conditions.

The USFS should conduct an EIS for this project, given the likely extensive prescribed burning and 'vegetation management' associated with the project. If these activities will not be extensive, the Forest Service needs to clarify its proposed actions.

The Proposed Action will likely have numerous and significant effects on the environment. Our comments demonstrate the highly controversial nature of the effects of the certain aspects of the Proposed Action on the quality of the human environment. As evidenced throughout our comments and objection, there are significant disputes regarding much of the science and data on which the Forest Service relied in selecting the Proposed Action. Also, the Pacific Northwest Region Aquatic Restoration Project has establishes a regional precedent for future actions with significant effects, and represents a decision in principle about a future consideration. The Pacific Northwest Region Aquatic Restoration Project warrants a full environmental impact statement due to likely significant impacts to ecological functioning, fish and wildlife species (including ESA-listed species), and likely cumulative impacts with other similar adjacent and nearby projects. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts. The Northwest Region Aquatic Restoration Project warrants a full environmental impact statement due to likely significant impacts to ecological functioning and wildlife species from its large scale, cumulative impacts with other similar adjacent and nearby timber sales. The cumulative effects analysis has not sufficiently considered widespread and pervasive impacts from grazing, present logging (ongoing and proposed; upland as well as riparian), Forest Resiliency Project, road-related impacts, climate change, and others. The project area is inhabited by numerous ESA-listed species, and thereby requires much closer consideration of any environmental impacts that could adversely affect either the species or their critical habitat. The Project is likely to raise stream temperatures and thus violate the Clean Water Act and

TMDL objectives and guidelines.

Failure to disclose or analyze public or scientific controversy

Logging and burning in RHCAs and riparian areas may be associated with negative and long-term impacts to water quality and ESA-listed fish. Please see our addendum including copies of scientific studies we've included with our objection that demonstrate the ecological risks of logging in streamside corridors, which includes a discussion of the scientific controversies regarding this issue.

Clean Water Act (CWA)

Actions in the project, including thinning within RHCAs and riparian areas, is likely to increase stream temperatures and excess fine sediments in streams, in violation of the CWA. Actions associated with logging such as road-related activities, skidding and moving logs and machinery, removal of shade, operation of heavy machinery adjacent to and in streams, and other activities are some of the mechanisms by which stream temperatures and excess fine sediments may increase. BMP and PDC efficacy and effectiveness in protecting water quality and stream habitats is problematic, as discussed in other portions of these comments and in our addendum.

TMDLs and other restoration plans do not necessarily address upstream water quality issues on USFS lands. Often upstream issues on National Forests such as temperatures and excess fine sediments are barely mentioned in TMDLs, despite 303d listing for these water quality impairments. TMDLs and restoration plans often focus on lower elevation issues, such as toxic or point source pollutants (i.e., waste water treatment plants, mills, chemical industries, etc.). The USFS has also had persistent problems with lack of follow-through, accountability, monitoring, and oversight for restoration and monitoring plans. Reliance on TMDLs and restoration plans for management direction is inadequate for ensuring recovery of water quality and stream habitats.

The EA's estimation for the number of stream miles experiencing impaired water quality on National Forests is based, in Oregon, on ODEQ's 303d list. In general, National Forests in Oregon have not been sharing ODEQ data for at least 10 years. The USFS has data for many miles of streams that are violating water quality standards, yet ODEQ does not yet have this data. Consequently, this project's analyses regarding the current conditions of water quality impairments is based on a severe underestimation of the problems with temperature and sediment on public lands in eastern Oregon.

Endangered Species Act (ESA)

The EA (pg. 3) notes: "[t]he National Marine Fisheries Service is responsible for listing and delisting anadromous fish species, and the U.S. Fish and Wildlife Service is responsible for listing and delisting freshwater fish. Within the proposed project areas, 20 fish are anadromous: 6 Chinook, 2 chum, 3 coho, and 2 sockeye salmon, 6 steelhead trout, and the eulachon. Four fish are resident species: bull trout and three species of suckers." The large pace, scale, and the intensity of this project is likely to have significant impacts (both positive and negative) and long-term impacts on these species. The likely significant effects to these species warrants further analyses in an EIS. The USFS has not provided a reasoned explanation or evidence to suggest that there would not be significant impacts to ESA-listed species in the project area.

We are also extremely concerned about other ESA-listed and Sensitive species within the project area such as Canada lynx, Grey wolves, Northern spotted owls, Marbles murrelets, and special-status plant and lichen species.

Monitoring

* Multiple scales of monitoring are needed (reach, subwatershed, reference vs. impacted, etc.). Upstream/downstream and before/after monitoring is needed. The data must be well organized, in a pre-designated fashion, and publically accessible.

BMBP requests, as part of the public engagement process for this project, the following information:

* The project record (including references cited)

* How many acres are estimated for riparian 'vegetation management' over the life of the project?

RESOLUTIONS requested:

* In the final decision, please explain how the proposed actions regarding roads will be enacted in the Malheur and Wallowa-Whitman National Forests, given the lack of Travel Management Plans on these Forests.

* Include system roads (rather than only non-system roads) as part of the proposed action in the final decision.

* Include a clear and enforceable adaptive management strategy that includes monitoring of all beaver dam analogs. Beaver dam analogs should be monitored for effects on stream temperature and fish passage with adequate time to detect and correct any unintended negative consequences[mdash]before these structures are placed on a widespread basis in any given subwatershed.

* A cap of ~30 acres of 'vegetation management'. If 30 acres is indeed the total amount of acres of riparian vegetation management expected, then this should be specified as a cap, and detailed in the final decision. If there is no limit on 'vegetation management' in riparian areas, then substantially more 'vegetation management' than estimated may take place within the project area during the life of this project. If a larger acreage of 'vegetation management' were to take place than was accounted for in the analysis contained in this document, then the analyses contained in the PNW Region Aquatic Restoration Project EA are insufficient with regard to direct, indirect, and cumulative effects on the environment and with regard to public transparency and the public's opportunity for comment or input on the project. This issue can be easily remedied by including a cap on 'vegetation management' that matches the estimated acreage of the 'vegetation management'[mdash]i.e., 30 acres.

* If the acres or stream miles carried out may be substantially more than this figure (the EA was not clear in this regard), then an EIS should be conducted for this project.

* No logging/tree felling in mature and old growth forests should occur beyond what is necessary to meet forest plan standards for wood in streams. Such activities should exclude pristine, never-logged, otherwise healthy streams[mdash]especially those that are close to achieving Forest Plan standards for wood in streams.

* No 'vegetation management' or extensive prescribed burning should occur in riparian areas/RHCAs in mature or old mixed-conifer forests, or forests that show evidence of being historically dominated by mixed-conifer forests. This generally includes forests in deep gulches, on north and northeast facing slopes, in higher elevations, on very moist or productive soils, on ash soils, those that are fir dominant or co-dominant, and those containing old growth fir or mixed-conifer tree species (including stumps).

* Large conifers should not be felled in relation to aspen/hardwood restoration efforts. Old growth conifers within aspen and other hardwood stands should be retained to support and encourage biodiversity. Old growth conifers in aspen and hardwood stands often occur in areas of microhabitats/topographically variable areas, and these old growth conifers have clearly historically coexisted with hardwoods in the majority of these areas. Some of the mid-sized and younger trees should also be retained in these areas to ensure old growth and large tree

recruitment and snag/dead wood recruitment.

* Repeatedly, the USFS has misused loopholes/allowances in PACFISH/INFISH or other protective Forest Plan standards to carry out 'vegetation management' projects that focus on logging (commercial and noncommercial) as a way to achieve 'restoration' despite the speculative and highly controversial nature of such projects, and despite a mountain of scientific studies showing the negative impacts associated with such projects. If the PNW Region Aquatic EA does not intend for 'vegetation management' projects to be carried out extensively, or in mature or old forests, or with the intent fire reduction or tree species conversion (such as converting mixed-conifer dominant mature and old forests to PP dominant forests), then the Forest Service needs to clearly specify that such actions are not allowed under this EA.

We are also very concerned that issues such as widespread heavy livestock grazing, high road densities, and climate change, which are the key drivers of water quality problems across the region, are not being addressed by the USFS. Until livestock grazing and road-related issues driving water quality violations across the region are addressed by the USFS, other piecemeal restoration actions will not restore water quality or stream ecosystem integrity. Similarly, the USFS needs to adopt sound restoration strategies for stream and aquatic ecosystems in the face of climate change such as preserving core habitats and connectivity corridors, protecting stream shade and ensuring cold stream temperatures, and leaving forests unmanaged or minimally managed to store the most amount of carbon.

Thank you for considering our concerns and objections.

Sincerely,

Paula Hood, Co-Director

Blue Mountains Biodiversity Project

Michael Krochta

Forest Watch Coordinator, Bark

Exhibit 1, BMBP's letter to the Secretary of Agriculture:

Sonny Perdue, Secretary of Agriculture

U.S. Department of Agriculture

1400 Independence Ave SW

Washington DC 20250

May 2nd, 2019

Dear Secretary Perdue,

On behalf of thousands of supporters, we are writing to emphasize the importance of completing travel planning

on the Malheur and Wallowa-Whitman National Forests as required under the 2005 Final Rule for Travel Management; Designated Routes and Areas for Motor Vehicle Use, and to request that travel planning be completed on these forests as soon as possible. Travel planning for the Malheur and Wallowa-Whitman National Forests is essential for protecting public safety, water quality, and forest ecosystems in a fiscally responsible manner. Travel planning under the 2005 Final Rule is long overdue and urgently needed on the Malheur and Wallowa-Whitman National Forests.

We are concerned that the Office of the Secretary of Agriculture may be considering exempting these forests from the 2005 Final Rule for Travel Management; Designated Routes and Areas for Motor Vehicle Use as a result of a petition submitted on March 1st, 2019 by the Chairs of several Eastern Oregon Counties. Forest Service compliance with the existing mandates to complete travel planning as required by the 2005 Final Rule for Travel Management would benefit public safety and access, as well as protect water quality, forest ecosystems, and native wildlife. The Forest Service has a social and economic responsibility to complete travel planning as directed by the 2005 Final Rule; the agency should not be hindered by delays or exemptions.

The 2005 Final Rule for Travel Management "requires designation of those roads, trails, and areas that are open to motor vehicle use". The Rule explains that "clear identification of roads, trails, and areas for motor vehicle use on each National Forest will enhance management of National Forest System lands; sustain natural resource values through more effective management of motor vehicle use; enhance opportunities for motorized recreation experiences on National Forest System lands; address needs for access to National Forest System lands; and preserve areas of opportunity on each National Forest for nonmotorized travel and experiences."

The bloated and sprawling road systems on National Forest lands, including the Malheur and Wallowa-Whitman National Forests, are fiscally burdensome as well as ecologically harmful. In discussing budget shortfalls, the Forest Service notes, for example, that on the Malheur National Forest, "it would take approximately \$56 million dollars to bring the entire road system back up to standard, and about \$6.2 million per year to keep it that way". For the Wallowa-Whitman National Forest, it would take approximately \$64 million dollars to bring the entire road system back up to standard, and approximately \$6.8 million dollars to keep it that way. On Blue Mountains National Forests, which includes the Malheur and Wallowa-Whitman National Forests, the Forest Service states that the "allocated annual road maintenance budget for national forests in the Blue Mountains only provides approximately 20 percent of the required annual maintenance funds needed to adequately maintain the current open road system. The annual shortfall adds to an already substantially deferred maintenance backlog". Across Oregon and Washington, the USFS manages approximately 90,000 miles of roads. The agency notes that it is "a challenge to maintain all roads to proper safety and environmental standards to increased use, aging infrastructure, and decreasing budgets. Many roads, built between 1950 and 1990, have exceeded their designated lifespan and require costly repairs. Unmaintained roads and infrastructure can impact water quality and wildlife habitat, especially fish-bearing streams. Backlog maintenance projects top \$1.2 billion, and funds available for road maintenance are only about 15% of what is needed to fully maintain the current road system." Clearly, the Forest Service needs to conduct analyses in order to determine how to operate within budgetary constraints and minimize environmental damage. Avoiding measures that seek to remedy these issues is fiscally irresponsible and potentially jeopardizes public safety.

Roads are ubiquitous on National Forest lands. The Malheur National Forest contains 7,033 miles of open roads and 2,637 miles of closed roads, for a total of 9,670 miles of existing inventoried roads. The Wallowa-Whitman has 4,633 miles of open roads and 4,486 miles of closed roads for a total of 9,119 miles of existing roads. One could drive from the northwestern tip of Washington state to the farthest northeastern tip of Maine, down to Miami, Florida, over to San Diego, California, and back up to the northwestern tip of Washington state, and still not have traveled as many road miles as are contained within either the Malheur or the Wallowa-Whitman National Forests. The USFS notes that "of the 90,000 miles of Forest Service roads in Oregon and Washington, about 2/3 of those are currently open and maintained for both public and administrative uses." The USFS estimates that approximately 12% of the overall road network is "likely not needed", with many of these

unnneeded roads already being "closed or stored", and only about 20% or 2,000 miles being currently open to the public.

Existing roads (in red) shown on the Malheur National Forest (administrative boundary in light green). Data sources and software: FSGeodata Clearinghouse accessed at <https://data.fs.usda.gov/geodata/edw/datasets.php>; GoogleEarth Pro. The Malheur and Wallowa-Whitman National Forests currently have existing road densities at levels that are recognized as threats to water quality, fish, and watershed health. The Malheur and the Wallowa-Whitman National Forests continue to exceed Forest Plan standards for road density in many watersheds, including those designated for prioritizing the protection of water quality and fish. Existing average road density on the Malheur National Forest is 3.56 miles per square mile. The average open road density averaged across the forest is 2.56 miles per square mile. If Wilderness and Roadless areas are excluded, then the average existing road density is 4.23 miles per square mile and the open road density is 3.05 miles per square mile. 16 Wilderness and Roadless areas occupy a small percentage of these forests, and the excessive road density outside of these areas has serious and ongoing negative ecological consequences for the majority of watersheds on these forests. Wilderness areas, for example, occupy approximately 17.1 percent of the combined area of the Malheur and Wallowa Whitman National Forests, and only four percent of Oregon's total land area.

The bloated road networks on National Forests lands in the region, including the Malheur and Wallowa-Whitman National Forests, threaten the long-term viability of Bull trout, steelhead, and other ESA-listed fish and aquatic species. The Forest Service notes that "[t]he most important road related environmental issue is the effects of roads on aquatic resources in general, and specifically Threatened, Endangered and Sensitive aquatic species (bull trout, mid-Columbia steelhead, and Columbia spotted frog)." High road densities have been correlated with low population levels and declines in bull trout and other aquatic species that rely on clean, cold waters. In addition, current standards may not be sufficiently protective to provide for the recovery of species such as Bull trout. Of particular concern are roads that interact with stream channels. For example, there are approximately 3,300 miles of roads on the Malheur National Forest that are considered riparian roads, and are within or directly adjacent to streamside corridors. Such roads are likely to have disproportionately negative effects on water quality and sensitive fish. Sedimentation from roads is known to be one of the largest contributors for degradation to water quality as well as a source of degradation to fish habitat and spawning areas. Roads in disrepair create safety issues and conflicts with protection for natural resources, especially for those such as water quality, aquatic species, and functioning wetland processes. The ongoing violations of road density standards, and the pervasive state of disrepair of many roads on National Forest lands, are also harmful to terrestrial and avian species that are sensitive to forest fragmentation and road-related disturbances.

Responsible Travel Planning on the Malheur and Wallowa-Whitman National Forests is essential for restoring water quality and aquatic ecosystems, and protecting wildlife habitat. Identifying a sustainable road network that operates within budgetary constraints is also key to providing for recreation and public safety. Travel Planning that address long-standing ecological and economic issues is a win-win-win approach: (1) it's a win for the Forest Service's budget, closing the gap between large maintenance needs and drastically declining funding through congressional appropriations; (2) it's a win for wildlife and natural resources because it reduces negative impacts from the forest road system; and (3) it's a win for the public because removing unnneeded roads from the landscape allows the agency to focus its limited resources on the roads we all use, improving public access across the forest and helping ensure roads withstand strong storms.

We urge you to encourage the Malheur and Wallowa-Whitman National Forests to comply with the commonsense requirements promulgated under the 2005 Final Rule for Travel Management; Designated Routes and Areas for Motor Vehicle Use. Thank you for considering our thoughts and request.

Sincerely,

Paula Hood, Co-Director

Blue Mountains Biodiversity Project