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Dear Responsible ODEQ Officials,

I am submitting these comments on "Oregon's Water Quality Assessment Draft Methodology in Support of the 2018 Integrated Report" on behalf of Blue Mountains Biodiversity Project.

Blue Mountains Biodiversity Project (BMBP) is a nonprofit environmental advocacy organization dedicated to the conservation of the natural ecosystems in eastern Oregon and the native flora and fauna they harbor. BMBP and our members actively participate in governmental decision-making processes on public lands, including national forests, in eastern Oregon.

I want to extend my thanks to Oregon Department of Environmental Quality (ODEQ) for their willingness to listen to and take seriously public input regarding this process. BMBP is very appreciative of ODEQ extending the public comment deadline for Oregon's Water Quality Assessment Draft Methodology in Support of the 2018 Integrated Report until June 28th, 2018. We are also extremely appreciative of ODEQ's efforts to work with the US Forest Service (USFS) to ensure water quality data from National Forest lands are submitted. As part of this effort, we recognize and thank ODEQ for also extending their 'Call for Data' deadline until July 25th, and for expressing their willingness to possibly be flexible even past this deadline.

We are heartened that the Forest Service is now coordinating a regional effort to submit some of their water quality data to ODEQ. However, we remain concerned and have questions about issues related to the USFS's water quality data and upcoming data submissions.

One of our primary concerns is the scope of water quality data that the Forest Service will be submitting to ODEQ during the current call for data. Based on conversations with USFS hydrologists and regional representatives, such as Joy Archuleta (who is helping to coordinate the USFS's data submission effort) it is our understanding that only the data within the USFS's NRIS/AQS database will be submitted. Apparently, it is up to individual districts how much emphasis is given to ensuring that data not previously inputted into this NRIS/AQS database is entered before submission to ODEQ. While the USFS has told me that they have tried to encourage staff to regularly upload water quality data onto this database, we are extremely concerned about the high likelihood that much of the USFS's water quality data, including temperature data, are not in the NRIS/AQS database and so will not ultimately be submitted to ODEQ as part of the current call for data.

In relation to requests we've made for water quality data or inquiries into stream monitoring projects, our repeated experience with the Forest Service has been that such information must be tracked down from different individuals working on different projects, with data residing in multiple different

places/computers. For example, regarding my recent FOIA requests for USFS water temperature, sediment, and turbidity data, the Malheur National Forest referred to the request as "complex" and implied that it would take some time to coordinate among specialists in order to provide responsive documents. If all relevant water quality data were housed in a central USFS database, this would not be a complex request. Repeatedly, the USFS has not been able to provide water quality data or answer specific questions regarding USFS monitoring activities. It seems highly unlikely that most of their data, particularly the data most relative to current timber sales and potential adaptive management issues, or data showing potential WQ violations, will be housed in this central NRIS/AQS database. BMBP has not yet received any of the water quality data we requested in our FOIAs to the Forest Service. If the data that the USFS submits from the NRIS/AQS database does not contain some of the more relevant data where active logging and other management is occurring, BMBP may not be able to submit this data to ODEQ. Our FOIAs were submitted at the end of April and the beginning of May to five National Forests across eastern Oregon. Our FOIAs focused on streams in several recent timber sales, and USFS NEPA documents show a variety of water quality issues in these streams—including severe temperature violations in streams that support ESA-Threatened species such as Mid-Columbia River steelhead and are Designated Critical Habitat.

The Forest Service has a legal responsibility to uphold state water quality standards on the federal lands they manage. Their directives include adhering to 'adaptive management' practices. We are very concerned that the USFS is not upholding water quality standards and not adequately tracking or sharing the results of their water quality monitoring with the public or ODEQ, and that they have failed to create a framework for adaptive management. For example, the Forest Service lacks data or evidence showing that recent logging activity and current logging proposals will not adversely affect or further degrade water quality, including in streams that are already in violation of state water quality standards for temperature or sediment. The USFS, despite our persistent inquiries, has not been able to provide us with examples of or data from any upstream/downstream and before/after monitoring from logging projects in priority watersheds, including logging projects taking place within Riparian Habitat Conservation Areas. It seems that there *may* have been one or two projects that might have had such a targeted monitoring design, but the USFS has not been able to provide us with a location, name of stream, or any data. None of the dozens of USFS staff or specialists I've talked with have been able to say for sure if such monitoring has taken place, or tell me a location or stream where it will take place in the near future. The USFS does conduct subwatershed and watershed scale water temperature monitoring—these monitoring data often reflect high stream temperatures that are in violation of state water quality standards. The necessary follow-up work to figure out what is causing these widespread water quality issues and violations is lacking.

More than 1,240 stream miles on National Forest lands in the Blue Mountains are listed as not meeting water quality criteria. The most common water quality impairment on National Forest lands is stream temperature (Draft EIS for the Blue Mountains Forest Plan Revision, Vol. 1 pg. 272). As demonstrated by BMBP's attached spreadsheet showing streams that are almost certainly violating state temperature standards but that ODEQ does not have data for, this figure (likely based on ODEQ's past Integrated Databases) is almost certainly a severe underestimate. Many streams are violating the state temperature standards by substantial margins, including those in mid and high-elevation forested streams that support ESA-listed species such as Mid-Columbia River steelhead and Bull trout, and are Designated Critical Habitat. It is not uncommon for these streams to be over 70 degrees Fahrenheit. Please see our attached spreadsheet for a few examples. The problem is almost certainly more widespread than the streams we had time to investigate.

BMBP strongly believes that interagency coordination and oversight is key to providing the framework and infrastructure for identifying and addressing landscape scale issues. The Forest Service is tasked with, among other responsibilities, producing a certain volume of board feet every year from each National Forest. Interagency oversight in tracking and protecting water quality is an essential check and balance in such a situation. ODEQ has joint responsibility with the Forest Service to protect water quality standards on National Forest lands. While the USFS continues to state in their NEPA documents that logging, including commercial logging, within RHCAs will not affect water temperature in any measurable or long-term way at the subwatershed or watershed scales, the USFS does not offer any proof for this assertion. We are extremely worried that because the USFS has not adequately shared data with ODEQ or the public, and because there is little or no project-scale monitoring of temperature and other water quality parameters, the Forest Service cannot in reality claim that they are 1) protecting water quality and 2) implementing an adaptive management framework.

In order to illustrate some of the issues involved and what is at stake, I've included a brief discussion below of a recent timber sale on the Malheur National Forest. The Camp Lick sale in the Blue Mountains District includes commercial logging within the RHCAs of numerous streams, and extensive non-commercial logging in their RHCAs. The commercial and non-commercial logging silvicultural prescriptions by the USFS seek to shift tree species compositions and create 'openings' within inner and outer portions of the RHCAs, including in steep, moist-mixed conifer, and streams at mid and higher elevations. For example, the Camp Lick Final Environmental Assessment (FEA) states that the upper limits for logging in the silvicultural prescriptions for warm/dry forests include: outer portions of RHCAs in warm/dry plant associations could be as low as 40 square feet per acre basal area; as little as 5% of the outer RHCA may be left untreated for wildlife patches; openings of up to one-half acre in size would be created in units with commercial logging; inner RHCAs would be left with as little as ~80 square feet per acre; and "openings" of up to one acre in size that may consist ***of up to 30 percent of the inner RHCA***. In the silvicultural prescriptions for cool moist forests, upper limits for logging include: only 45% of RHCA treatment areas would be left untreated; ***20% of the inner RHCA could contain mini-clearcuts ("openings") with no trees left***. Late seral tree species left would comprise only 1/3 of the species present. Furthermore, the Camp Lick timber sale, when examined in combination with other nearby or adjacent sales within overlapping time frames, have the potential to cause widespread negative cumulative impacts to stream temperatures and to ESA-listed or Sensitive-listed fish species. For example, BMBP summed the percentages of suitable habitat affected for Sensitive or Threatened fish as stated in the EAs and EISs from several back-to-back timber sales on the Malheur NF (all are on similar or overlapping timelines). Examined in combination, in the Camp Lick, Magone, and Big Mosquito timber sales, the **suitable habitat for Threatened Mid-Columbia River steelhead across the Forest that will be affected is 23.2 percent (**Magone FEIS pg. 124; Big Mosquito FEA pg. 136). Examined in combination, the Camp Lick, Magone, and Big Mosquito timber sales would also affect approximately **40.2 percent of suitable Redband trout habitat across the Forest** (Magone FEA pg. 124; Big Mosquito FEA pg. 137; Camp Lick FEA pg. 142). These are the USFS's own numbers. Rather than looking at the percentages of affected areas in isolation and only for each timber sale as the USFS did, we simply added together the percentages the USFS stated in each EA or EIS for these timber sales. The Ragged Ruby timber sale is also adjacent to the Camp Lick, Magone, and Big Mosquito sales, proposes thinning within RHCAs, and will affect habitat for Sensitive-listed Redband trout and Threatened Bull trout and Mid-Columbia River steelhead. However, the Ragged Ruby sale is currently in the scoping phase and so the percentage of habitat for these species that may be affected by this sale has not yet been published. These examples reflect one area of one District in the Malheur National Forest; there are many such examples across

many Districts on National Forests the eastside.

We bring up these issues to illustrate the importance of ODEQ's role in helping to accurately track and assess water quality data across the state, including on public federal lands. National Forests in Oregon support much of the 'last best' habitat in the state for many threatened and at-risk aquatic species. Clean, cold water is essential for many of Oregon's most imperiled aquatic species. Unfortunately high-quality habitat continues to be degraded or destroyed on federal public lands, and excessively high stream temperatures and excess fine sediments continue to be widespread problems. It is essential that ODEQ uphold its oversight, partnership, and legal responsibilities in protecting water quality on federal public lands.

The Clean Water Act directs that states adopt water quality standards. The Forest Service has a responsibility to protect water quality and uphold the Clean Water Act, as implemented by ODEQ. Monitoring and accurate inclusion of water quality data into Oregon's Integrated Database are key components for ensuring that water quality standards are being upheld, and for protecting the viability of aquatic species, including ESA-listed species. Given the widespread logging on public lands across eastern Oregon, including the increasingly common practices of commercial and non-commercial logging within streamside RHCAs, inclusion of accurate water quality data in ODEQ's Integrated database is key for examining and assessing landscape scale data and for implementing adaptive management strategies.

Based on our conversations with Forest Service personnel, it is our understanding that ODEQ is not encouraging the USFS to submit their fine-sediment related data at this time (such as embeddedness data). My impression from Joy Archuleta at the USFS is that there is not currently a mechanism for ODEQ to accept embeddedness data from the USFS. Forest Plan standards on eastside National Forests call for equal to or less than 20% embeddedness in streambeds; this standard was developed to be protective of sensitive native aquatic species. While ODEQ focuses in general on turbidity as a measure of fine sediments, the USFS's embeddedness standard seems to be in line with ODEQ's stated criteria of "[t]he formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life or injurious to public health, recreation, or industry may not be allowed." We request that USFS stream embeddedness data, as well as any turbidity or other sediment-related data, be accepted by ODEQ and that ODEQ encourages the USFS to submit this data. While we recognize the ecological and logistic complexity inherent in and associated with fine sediment data, it is clearly a widespread and severely under-reported issue that is harming sensitive and ESA-listed aquatic species. Such an issue deserves attention; the USFS submission of such data would be a good start. It would again seem that if the USFS were regularly updating data in their NRIS/AQS database, then it would not be especially difficult for these data to be submitted to ODEQ. If large bodies of data exist for sediment and/or temperature data, does ODEQ not have an obligation to include and consider that data, even if not all of it is collected with exactly the same protocols and/or if there are differences between USFS and ODEQ protocols? Wouldn't the USFS and ODEQ risk not identifying clear patterns of problems, including landscape level problems, if they do not include these data? It would seem that fine sediment-related data in particular would be important to examine at a larger landscape scale through the ODEQ Integrated Database in part because of the inherent complexity and difficulties of examining fine sediment at smaller scales. Inclusion and assessment of such data is especially important on National Forest lands, given the large amount of spawning and rearing habitat (and often Designated Critical Habitat for ESA-listed species) located on these public lands, and issues such as the extremely high road densities on some National Forests (the Malheur National Forest has an average road density of over four miles per square mile).

Based on our conversations with the Forest Service, we are concerned that the USFS is increasingly attempting to substitute shade data in place of stream temperature data, and sometimes use the availability of data for percent of shade as justification for not monitoring water temperature. One has only to look briefly at NEPA documents to understand that data on the percent of shade in a streamside corridor is a poor substitution for water temperature data. For example, in the Aquatics Report of the Camp Lick timber sale on the Malheur National Forest, 25 out of the 31 stream reaches that the USFS surveyed for shade met fish habitat objectives. Yet, only 6 out of 25 of the reaches with stream temperature data met the USFS's fish habitat objectives in those streams (Camp Lick Aquatics Report pages 17-19). Clearly, relying on stream shade in these eastside forests is not appropriate. Again, there are many such similar examples across National Forests on the eastside. Given that there is joint responsibility between the two agencies to ensure that monitoring is taking place on National Forests lands, does the ODEQ have authority to require the USFS to monitor stream temperature in certain situations, and for inclusion into the state's Integrated Database?

BMBP continues to be extremely concerned about the cumulative impacts of timber sales, roads, and livestock grazing on streams and water quality on public lands. In addition to our concerns detailed above, we are also very concerned that once a stream is included on the 303d list or has its TMDL approved, insufficient oversight or focus on restoration of water quality on public federal lands is a widespread problem. The USFS routinely focuses on vegetation removal and manipulation as the main component in their "restoration" plans; this is increasingly the case within RHCAs—even if the primary water quality concern is temperature and/or excess fine sediments. Meanwhile, issues such as roads and road related impacts, livestock grazing, and impacts from logging go largely unaddressed. (Note: BMBP generally supports USFS actions such as increasing large downed wood in streams, and beaver restoration efforts. We do bring some caveats to the table in these conversations—for example making sure that even if some trees are felled into streams, there are sufficient numbers of trees left near streams for future recruitment of large trees and snags). While there are situations in which thinning may be ecologically appropriate, such as dry Ponderosa pine forests at lower elevations, the USFS continues to overly broadly apply this idea across the landscape, including in situations in which it is clearly ecologically inappropriate such as within RHCAs *and* in situations in which they lack monitoring data and the necessary components for an adaptive management framework. Again, we bring this issue up here because of the clear risks to water quality and aquatic species across the landscape. We are very concerned that when TMDLs and restoration plans are put in place, more oversight is necessary from ODEQ and other agencies in order to uphold water quality standards.

As stated in the 2014 Final Oregon Nonpoint Source Management Program Plan, the Memorandum of Understanding between the USFS and ODEQ holds both agencies to protecting stream water quality and beneficial uses (such as salmonid spawning, rearing, and/or migration). MOU states that "The physical, chemical, and biological conditions of the Waters of the State"…"will be protected, restored, and maintained by working in a proactive, collaborative, and adaptive manner through this MOU" (2014 Final Oregon Nonpoint Source Management Program Plan pg. 33). We cannot stress enough that the USFS and ODEQ must, in order to achieve these goals, uphold water quality standards, and meet their legal responsibilities: 1) ensure that the USFS submit all relevant temperature and sediment-related water quality data 2) increase water quality monitoring efforts, particularly in key or prioritiy watersheds *and* in a targeted manner in relation to USFS land management activities (such as logging, especially within streamside RHCAs) 3) put in place and <u>implement</u> adaptive management--i.e., collect data on how USFS actions are actually affecting water quality, and then with public and ODEQ/multi-agency cooperation and oversight, adapt their activities so that widespread water quality degradation does not continue to occur across the landscape.

BMBP also submitted, as part of our comments, a letter to the Forest Service Supervisors requesting that the USFS submit their water quality data to ODEQ during this data call.

Thank you very much for considering our comments on "Oregon's Water Quality Assessment Draft Methodology in Support of the 2018 Integrated Report". We appreciate your time and consideration in these matters.

Sincerely,

Paula Hood, Co-Director
Blue Mountains Biodiversity Project