MURPHY

January 4, 2023

Oregon Board of Forestry
Oregon Department of Forestry Headquarters
2600 State Street
Salem, Oregon 97310

Chair Kelly and Board of Forestry Members, and State Forester Mukumoto

My name is Knox Marshall, and I am the Vice President of Resources for Murphy Company located in Eugene, Oregon. Please accept this written testimony for submission of public comments, Agenda Item 1, 1/4/2023 Hybrid Public meeting.

Worth mentioning is the format of these meetings. Public comments are necessary for the Board members to hear first-hand opinions outside the confines of public service offices what stakeholders find to be most important in relation to topics being considered for policy changes. The format of having oral testimony confined to 2 minutes is not satisfactory to properly inform the Board Members of concerns that are critical to stakeholders. The meetings are confining the comment period to one hour and are only allowing 2-minute testimony with a hard stop of one hour maximum in the agenda. Even when there is time left in the slot staff are not allowing testimony beyond 2 minutes, this happened on January 4 with more than 20 minutes remaining in the agenda. Each individual preparing comments is deeply committed to their testimony, traveling to Salem, allocating the time and in no way is 2 minutes adequate to inform Board Members. The optics of shortening this testimony is that the Board is simply checking a box of public engagement, instead of truly listening to and engaging with stakeholders.

In other public formats, more time is allotted and available. If this means individuals are randomly selected to testify, but given more time to comment, the outcome for the Board Members would be better information. I suggest that the Board consider some options to improve the format to bring more information in front of the board from the concerned public.

I would also suggest that when the Board is considering major policy changes a different format be adopted periodically to hear from a full spectrum of stakeholders that are selected by the staff to consider a balanced approach with testimony provided by invited

individuals. This would match up to some degree like committee hearings in the United States Congress with opportunities for questions and answers following testimony from the Board Members. This would allow the Board Members to engage directly with those providing testimony. This does not need to be every public meeting but a movement towards this format periodically would be encouraging for those who are going to be most impacted by policy changes.

Founded in 1909, Murphy Company operates facilities in Washington and Oregon. Murphy employs approximately 970 people and is a leading producer of hardwood and softwood plywood, laminated veneer lumber (LVL), and softwood veneer in the Pacific Northwest. Murphy Company operates two veneer plants in Oregon that are dependent on the ODF timber sale program. The timber offered by the ODF into the marketplace is critical to our milling infrastructure and generates stable revenue for the counties that depend on them. Sustainable forest management is critical for maintaining the milling infrastructure in small communities where our facilities are located and the jobs, they support are a key piece of the economic stability of the community.

The concept of sustainable forest management can be described as the attainment of balance. The balance between society's demands for forest products and the preservation of forest health and diversity. This balance is critical to the survival of forests and the well-being of forest-dependent communities in all areas of the world.
As the board considers options for the future of the state forests it is critical that they consider what impacts there will be globally. Our Oregon population is increasing its demand for wood products and responsible sourcing is critical for the health of our changing climate.

Murphy Company is one of the largest producers of decorative panels in the United States. Our products from our Eugene Plywood facility are built primarily out of sustainable wood products sourced from right here in Oregon. We are third party certified in our sourcing to the rigorous standards of the Forest Stewardship Council and the Program for the Endorsement of Forest Certification to ensure that the strictest environmental standards are met. As more and more forests are set off limits in Oregon competition to meet demand from foreign sources are imported from areas of the world where there is little to no environmental oversight.

Here is a real-world example. A great deal of decorative panels is now being sourced from countries like China and Vietnam. At the start of the war in Ukraine, the Forest Stewardship Council put a ban on products sourced from Russia directly or indirectly, most particularly Russian Birch, recognizing the lack of environmental and social responsibility from its origin. The Russian Birch made its way into Vietnam and now is being masked as sustainably sourced from countries like Vietnam. These Russian Birch panels are highly demanded to consumers all over America including Oregon. As fiber supplies dwindle here at home, imports from countries like Russia will be ready to meet demand with little or no recognition of the environmental impacts.

Again, as the Board considers options for the State Forests, it should be recognized that impacts to the highly regulated domestic producers will decline, and wood products will be imported to meet the shortfall in supply. As Oregonians it is our responsibility to sustainably manage all forest lands for the perpetual outputs that meet the goals for the global environment and not transfer our environmental responsibility to countries with far less strict policies. The demand for wood products will continue to grow as they become globally recognized for their positive benefits to climate change.

We are confident that the Board of Forestry members will consider the best scientific guidelines on what should be recognized as it relates to carbon sequestration and active forest management. The Intergovernmental Panel on Climate Change (IPCC) 4th Assessment recognized not only the carbon mitigation benefits of forests, but also the wood products derived from forests.

- *"Mitigation options by the forestry sector include extending carbon retention in harvested wood products, product substitution, and producing biomass for bioenergy. This carbon is removed from the atmosphere and is available to meet society's needs for timber, fiber, and energy."*

- *"In the long term, a sustainable forest management strategy aimed at maintaining or increasing forest carbon stocks, while producing an annual sustained yield of timber, fiber or energy from the forest, will generate the largest sustained mitigation benefit."*

The IPCC 6th assessment directly points out the global picture and what costs to carbon sequestration will be to substituting either other building products that are more carbon intensive in acquiring and producing, or even if substituting for other wood products from across the world what will be the additional energy used in generating and transporting those products to where they are used.

- *"…carbon storage in wood products and the potential for substitution effects can be increased by additional harvest, but with the risk of decreasing carbon storage in forest biomass when not done sustainably (Smith et al. 2019b). Conversely, reduced harvest may lead to gains in carbon storage in forest ecosystems locally, but these gains may be offset through international trade of forest products causing increased harvesting*

There often seems to be a lack of recognition from those who ideologically oppose active forest management that human activity – meeting society's needs – requires tradeoffs. Short-term and long-term. As the IPCC makes clear sustainable, science-based management and the forest products sector is part of the climate solution. The conversation must focus on finding balance, not on an unrealistic expectation that we can meet the needs of an 8 billion world population without environmental, social, and economic tradeoffs. We rarely consider or evaluate the impacts of *not* taking action. At Murphy Company, we are committed to that balance. It is our culture.

We are appreciative that the Board of Forestry is being careful in all its assumptions to maintain a viable industry for equity towards the rural communities of Oregon while perpetually managing the state forests for sustained production of forest products. The decisions made on the trajectory of these forests is critical to our state's future as a provider of raw materials for our societies needs and all the ecological contributions managed forests provide. The debate over the importance of these issues will continue. There is often a failure by those who ideologically oppose active forest management to recognize these values are *already* shared by most Oregonians and have long been practiced by those working within the timber industry, creating an "either/or" conflict rather than appreciating that Oregon's forests are an "and/in addition to" asset. These values are the future of management decisions and will shape and guide the view of forest management worldwide. Please be careful in consideration of management decisions that will drastically change the future of these State Forests.

If you have any questions, please call me at 541.461.1222.

Sincerely,

Knox Marshall
Vice President Resources
Murphy Company

To: Oregon Board of Forestry
CC: State Forester Mukumoto
Date: January 4th, 2023
Re: Post-disturbance harvest rule-making

Chair Kelly, members of the board, and State Forester, thank you for the opportunity to comment. I speak today as Oregon Wild's state forest policy coordinator.

I support Item E on your consent agenda, but it needs context. Section 6 of SB 1501 reads: "the State Board of Forestry shall initiate rulemaking concerning the post-disturbance harvest of trees that, but for the disturbance, would not be harvested under rules adopted, amended or repealed." Section 47 states that all rule changes must be consistent with the Private Forest Accord. So, any post-disturbance harvest must comply with the Accord & the rest of the private forest habitat conservation plan (and meet the Services requirements). If you choose to conclude anything other than that "the PFA-established non-disturbance buffers remain the buffers, post-disturbance," I ask that you direct staff to perform a systematic literature review in coordination with PFA Authors. To meet Oregon law & the Services' requirements, that review must conclude that any proposed post-disturbance practices will have no negative impact on aquatic species relative to the PFA guidelines for non-disturbance harvests.

Your 20-yr landscape resilience strategy asks you to list restoration actions and geographies by priority. First, with limited funds & time for forest restoration, you can choose to focus close to homes and communities rather than far out in forests. The cost–in dollars, human suffering and displacement, and infrastructure–of wildfire damage is highest in communities. Second, the Strategy should support the Oregon Conservation Corps and other workforce training of young people while reducing the risk of wildfire to homes of low-income and wildland-urban interface residents.

Third, your Strategy should prioritize consultation and *management* with tribes.

Fourth, you have an enthusiastic constituency among outdoor recreators, anglers, and hunters across Oregon. In the Strategy, I hope you will consider them in your wildfire prevention and post-fire recovery work. Right now, the Santiam State Forest has trails indefinitely closed due to the Labor Day 2020 fires; remember that you have partners in trail alliances & hunter associations ready to help do wildfire prevention, post-fire assessment, and trail rebuilding work. Nurture the outdoor sector for long-term revenue.

Finally, switching topics: the term of the draft state forest HCP is long. Please consider Alternative 3 for a more conservative approach to the persistence of at-risk species. You don't want to be the ones who let them go.

Thank you for the opportunity to speak, and thank you for your policy leadership. Please know that your staff remain dedicated, responsive, and thoughtful!

Casey Kulla, ck@oregonwild.org

To: Oregon Board of Forestry
From: Michael Lang, Oregon Policy Senior Program Manager, Wild Salmon Center
Stacey Detwiler, Oregon Policy Senior Program Manager, Wild Salmon Center
Date: January 11, 2023
RE: Post-Disturbance Rulemaking and State Forest Habitat Conservation Plan

Chair Kelly, Board Members, and State Forester Mukumoto:

Thank you for the opportunity to provide comments. The Wild Salmon Center is a nonprofit organization based in Oregon that works to protect and restore healthy forests and abundant clean water to support thriving wild salmon populations in the state and across the Pacific Rim. The following comments focus on two items related to the January 4th, 2023 Board meeting.

1. **Consent Agenda Item E: Initiate Rulemaking on Post-Disturbance Harvest**

We thank the Board and ODF staff for your ongoing commitment to the Private Forest Accord (PFA), and related regulations which were finalized this past fall. We encourage the Board and staff to continue the momentum and establish a prioritized timeline for key components of the PFA, including developing technical guidance as well as establishing the Adaptive Management Program Committee (AMPC) and the Independent Research and Science Team (IRST) that will support implementation of the new rules.

Another key element of the Private Forest Accord is the post-disturbance harvest rulemaking, which was included on the consent agenda at the January 4th meeting. Thank you for the Board's unanimous vote of support to initiate the post-disturbance rulemaking to meet the November 30, 2025 deadline required by SB 1501.

As the Board and staff move forward with the development of this post-disturbance rulemaking, we wanted to highlight some key statutory changes in SB 1501 related to the Board's rulemaking authority.

a. **Any new post-disturbance rulemaking must be consistent with the requirements of the PFA Report or the approved PFA Habitat Conservation Plan (HCP),** under new changes to ORS 527.714(4) established under SB 1501.

> ***ORS 527.714(4)*** *If the proposed rule would change the standards for forest practices that relate to the protection of aquatic resources, the level of protection that is desired must be consistent with:*
>
> *(a) Requirements described in the Private Forest Accord Report dated February 2, 2022,and published by the State Forestry Department on February 7, 2022; or*

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(b) If a habitat conservation plan consistent with the Private Forest Accord Report has been approved, the terms of the habitat conservation plan.

b. The post-disturbance rulemaking must address desired future conditions (DFC), specifically related to vegetation retention measures for streams to align with new PFA requirements, as required under OAR 629-643-000.

629-643-0000 Vegetation Retention Goals for Streams; Desired Future Conditions

(1) The purpose of this rule is to describe the vegetation retention measures for streams, the measures' purposes, and how the measures shall be implemented. The vegetation retention requirements for streams, as described in OAR 629-643-0100 through 629-643-0500, are designed to produce desired future conditions for the wide range of stand types, channel conditions, and disturbance regimes that exist in Oregon's forestlands.

(2) Sections (3) through (6) of this rule, including tables in OAR 629-643-0300, are effective until replaced by the Board of Forestry as part of the post-disturbance harvest rulemaking directed by section 6(2)(a), chapter 33, Oregon Laws 2022 that is to occur no later than November 30, 2025.

2. Western Oregon State Forest Habitat Conservation Plan

Additionally, we ask the Board to support a strong Habitat Conservation Plan for Western Oregon State Forests that is grounded in science, meets the requirements of state and federal law, and protects fish and wildlife for the benefit of all Oregonians.

The Wild Salmon Center asks that you support Alternative 3 with additional measures. It is the only alternative that is fully consistent with federal law and fulfills your mandate to manage state forests for the greatest permanent value.

For example, Alternative 3:

- Provides increased protection of stream temperatures by providing larger buffers on small streams, thus mitigating against the impacts of climate change on water temperatures.
- Is the only alternative that addresses known and foreseeable increases in the frequency and density of landslides and debris flows related to ODF's clearcutting and road system.
- Requires ODF to "adopt a risk inventory and evaluation program" for roads and motorized trails in RCAs as well as set targets for vacating problematic roads at a rate equal to road construction.

In addition to Alternative 3, the following measures should be included in the final HCP:

- Include no-touch riparian buffers on non-fish-bearing seasonal streams that connect directly to fish-bearing streams. This would provide a greater chance of wood recruitment and habitat development.
- Shorten the permit period to 50 years, as contained in Alternative 4, given the climate and biodiversity crises. This would enable the Board to adjust to the effects of climate change, such as impacts to wildlife populations, stream flows and biodiversity.

- To anticipate and respond to the pressures of climate change, include an ecological, climate-smart approach to reforestation that would include prescribing variable spacing (and less density), retaining non-Douglas fir trees and non-conifer trees, planting diverse species mixes that are better adapted to future predicted climate scenarios, and retaining some of the understory shrubs, especially those that support ecologically important native invertebrates and birds.

The federal Environmental Protection Agency (EPA) also supports Alternative 3. In a letter to NOAA Fisheries dated May 25, 2022, the "EPA identified concerns that the Proposed Action may have adverse impacts to water quality and aquatic resources and recommends Alternative 3 (Increased Conservation) as the preferred alternative in the Final EIS to address these concerns."

The EPA letter contains several recommendations, including:

1. Support Conservation Action 1 to expand riparian conservation area (RCA) widths on small perennial non-fish bearing streams and seasonal non-fish bearing streams to 50 feet in the areas upstream of process protection zones in order to protect water quality and decrease stream temperatures.
2. Support Conservation Action 5 to develop a risk inventory and evaluation program for roads within proposed RCAs to identify roads that are a risk to water quality and set up a process to vacate these roads during the permit period.

While the benefits to water quality and aquatic resources in Alternative 3 are substantial, the impacts to harvest and net present value are minimal as compared to the Proposed Action. According to the Staff presentation on November 16, 2022, decadal harvest levels would be similar and remain over 2 billion board feet over the lifetime of the HCP. Net present value over the life of the HCP would differ by only $8 million, or 0.5%.

Regarding funding for local services from state forest timber revenue, we need to find solutions that stabilize funding for local tax districts and enable the state to balance the management of state forest lands for multiple benefits.

The Wild Salmon Center supports efforts to identify alternative funding solutions for local services beyond state forest timber revenues to fill any gaps that may occur in essential services as a result of reduced timber revenues from state forests.

We've seen that it's possible for conservation and industry to come together under the Private Forest Accord. Collaboration is not only possible, but necessary. Now is the time to work together to forge a new path and find solutions.

Finally, the Wild Salmon Center is pleased to see the results of the Oregon Values and Beliefs Center's Oregon Forest Management Survey that were presented at the January 5 meeting. The survey shows that Oregonians strongly support and prioritize habitat for wildlife, clean cool water for fish, and drinking water for nearby communities in Oregon state forests. These results closely align with the values expressed by the Wild Salmon Center and can help inform management decisions to determine the greatest permanent value of Oregon's state forests for all Oregonians.

Thank you for considering these comments.

Attachment: US EPA Letter DEIS Western Oregon HCP

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 155, 14-D12
Seattle, WA 98101-3144 REGIONAL ADMINISTRATOR'S DIVISION

May 25, 2022

Michelle McMullin
NOAA Fisheries West Coast Region
1201 NE Lloyd Boulevard, Suite 1100
Portland, Oregon 97232

Dear Michelle McMullin:

The U.S. Environmental Protection Agency has reviewed the National Marine Fisheries Service's March 2022 Draft Environmental Impact Statement for the Western Oregon State Forests Habitat Conservation Plan (CEQ Number 20220035, EPA Project Number 21-0011-NMFS). EPA has conducted its review pursuant to the National Environmental Policy Act and our review authority under Section 309 of the Clean Air Act. The CAA Section 309 role is unique to EPA and requires EPA to review and comment publicly on any proposed federal action subject to NEPA's environmental impact statement requirement.

The DEIS evaluates the potential environmental impacts associated with an authorization for incidental take of federally protected species during the Oregon Department of Forestry's HCP activities in state owned and managed forestlands in Western Oregon (i.e., west of the Cascade Range crest). The HCP activities include stand management, road system management, recreation infrastructure construction and maintenance, and conservation actions. The proposed HCP will support the anticipated incidental take permit (ITP) issuance. After analysis of potential impacts from the proposed action, the NMFS will process ODF's request for an ITP, then decide whether to grant, grant with conditions, or deny the ITP. The DEIS identifies and evaluates five alternatives: Alternative 1 (No Action), Alternative 2 (Proposed Action), Alternative 3 (Increased Conservation), Alternative 4 (Reduced Permit Term), and Alternative 5 (Increased Timber Harvest). The preferred alternative has not been selected.

EPA supports improved forest conservation strategies. EPA identified concerns that the proposed action may have adverse impacts to water quality and aquatic resources and recommends Alternative 3 (Increased Conservation) as the preferred alternative in the Final EIS to address those concerns. The enclosed Detailed Comments provide an explanation of this recommendation and other recommendations for the FEIS.

Thank you for the opportunity to review the DEIS for this project. If you have questions about this review, please contact Caitlin Roesler of my staff at 206-553-6518 and roesler.caitlin@epa.gov, or me at (206) 553-1774 or at chu.rebecca@epa.gov.

Sincerely,

Rebecca Chu, Chief
Policy and Environmental Review Branch

Enclosure

U.S. EPA Detailed Comments on the

Water Quality and Aquatic Resource Impacts

EPA recommends selecting Alternative 3 (Increased Conservation) as the preferred alternative in the FEIS, considering the project's potential for adverse impacts to water quality and aquatic resources. EPA notes that the potential adverse impacts resulting from the proposed action (e.g., stream temperature increases) described in the DEIS need further analysis and discussion. HCP Conservation Actions 1 and 5 in Alternative 3 are modified from those of the proposed action as follows: Conservation Action 1 expands riparian conservation area (RCA) widths on certain stream types and protections related to landslide initiation sites; Conservation Action 5 includes increased commitments related to prioritizing and selecting road projects. These modifications will help protect cold water important to species.

Stream Temperature

Alternative 3 increases the width of riparian buffers from 35 feet to 50 feet on small perennial Type N (non-fish) streams upstream of a 500-foot process protection zone (PPZ). A PPZ is an RCA where 120-foot buffers are maintained for a length of 500 feet of water upstream from fish-bearing stream sections. The upstream buffer in both alternatives will maintain some shade to limit temperature increases in the headwaters and the wider 120-foot PPZ buffer will provide additional shading to promote the cooling of water before it enters a fish-bearing stream. Successful recovery of stream temperature in the PPZ is dependent on the amount of expected heat dissipation and groundwater recharge attenuating heat added upstream. The HCP states the relative total flow contribution of non-fish streams in a harvest unit to the receiving fish-bearing stream is critical for determining whether the increased headwater stream temperature has any measurable impact on the fish-bearing stream's temperature.[1] An example given in the HCP is that a headwater stream experiencing an increase in temperature of 1.5°C must comprise no more than 13% of the total fish-bearing stream's flow. The proposed activities in and nearby riparian areas have the potential to cumulatively impact the broader riverine ecosystem including fish species, particularly the salmonids that are subject to the ITP, and their prey species.

Recommendation for the FEIS:

- Include data regarding relative contributions of headwater streams to fish-bearing streams in Western Oregon State Forests, including potential cumulative impacts from temperature increases in multiple headwater streams flowing into the same fish-bearing stream.

The HCP suggests that it is reasonable to assume a 35-foot horizontal buffer will limit temperature increases to 1°C.[2] As noted in our April 2021 comments on the Notice of Intent for this project, results from the 2018 "Ripstream" study[3] suggest a 35-foot buffer width would result in an average temperature increase of 1.65°C. A recently published study of the effectiveness of riparian management alternatives protecting cold headwater streams in western Washington showed that a continuous 50-foot buffer resulted in temperature increases above 1°C.[4] This study also suggested riparian buffers were subject to ongoing loss of trees to windthrow in post-harvest years that resulted in further loss of shade, increased temperatures, and an extended period of temperature recovery (with variation across buffer treatments and study sites).

[1] HCP, pg. 5-11.
[2] HCP, pg. 5-11.
[3] Groom, J. D., Madsen, L. J., Jones, J. E., & Giovanini, J. N. (2018). Informing changes to riparian forestry rules with a Bayesian hierarchical model. Forest Ecology and Management, 419, 17-30.

Recommendations for the FEIS:

- Extend buffers to greater than 50 feet.
- Consider the maximum range of temperature impacts that have been demonstrated to occur in the studies mentioned.
- Add a feathered buffer outside of the buffer to minimize blowdown and therefore better protect streams from temperature increase.

The DEIS states that "[s]tream temperature increases are projected to be minimal in groundwater-fed streams at high elevations in the Cascade Range and greatest in low-elevation streams that are fed by surface water (Dalton and Fleishman 2021)." Research has shown that stream temperature increases resulting from riparian disturbance have been shown to be partially mitigated by groundwater/hyporheic exchange within the stream network,[5] which can also vary the downstream temperature response extent.[6] However, stream temperature response to added heat loading due to riparian disturbance is variable but is generally greater in streams with lower volume and higher elevation.[7]

Recommendation for the FEIS:

- Ensure riparian management targets are applied to all streams regardless of the elevation of the stream reach.

Protecting Cold Water from Degradation

Working with NOAA, USFWS, States, Tribes and other scientific experts, EPA issued its Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards[8] demonstrating that in addition to biologically based numeric criteria, protection of cold water is integral to maintaining a complex natural thermal regime with spatial temperature patterns important to the recovery of protected species. Protecting cold headwater streams will likely become more important to covered species with increasing stream temperature due to climate change.

Preventing additional warming of cold water is consistent with the antidegradation requirements of the Clean Water Act (CWA). Antidegradation policies are water quality standards that apply to CWA activities in the Waters of the U.S. They are not source specific and apply to both point and nonpoint

[4] McIntyre, A.P., M.P. Hayes, W.J. Ehinger, S.M. Estrella, D.E. Schuett-Hames, R. Ojala-Barbour, G. Stewart and T. Quinn (technical coordinators). 2021. *Effectiveness of experimental riparian buffers on perennial non-fish-bearing streams on competent lithologies in western Washington – Phase 2 (9 years after harvest).* Cooperative Monitoring, Evaluation and Research Report CMER 2021.07.27, Washington State Forest Practices Adaptive Management Program, Washington Department of Natural Resources, Olympia, WA.

[5] Janisch J.E., S.M. Wondzell, and W.J. Ehinger. 2012. Headwater stream temperature: Interpreting response after logging, with and without riparian buffers, Washington, USA. *Forest Ecology and Management*.

[6] Davis, Lawrence J., Maryanne Reiter, and Jeremiah D. Groom. 2016 "Modelling temperature change downstream of forest harvest using Newton's law of cooling." *Hydrological Processes* 30.6 (2016): 959-971 and Arismendi, Ivan, and Jeremiah D. Groom. 2019. "A novel approach for examining downstream thermal responses of streams to contemporary forestry."*Science of the Total Environment* 651: 736-748.

[7] Fuller, M. R., Leinenbach, P., Detenbeck, N. E., Labiosa, R., & Isaak, D. J. 2022. Riparian vegetation shade restoration and loss effects on recent and future stream temperatures. Restoration Ecology.

[8] U.S. Environmental Protection Agency. 2003. EPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards. EPA 910-B-03-002. Region 10 Office of Water, Seattle, WA.

sources such as forest practices (see 40 CFR 131.12(a)(2)).[9] Antidegradation includes Tier 1 requirements for protection of existing uses; Tier 2 requirements for protection of waters at or above the quality needed to protect designated uses; and Tier 3 protections where no degradation is allowed for

any identified Outstanding National Resource Waters. Federal antidegradation rules at 40 CFR 131.12(a)(2)(ii) provide that before allowing any lowering of water quality for a "high-quality" water, a state shall find, after an analysis of alternatives, that such a lowering is necessary to accommodate important economic or social development in the area in which the waters are located.

Oregon DEQ's May 2, 2018, Memorandum "Addendum to Antidegradation IMD Clarifying Procedures When Allowing a Lowering of Water Quality"[10] suggests that ODF has a direct role in implementing antidegradation procedures for the state. The Memo indicates that Oregon has established programs for management of nonpoint pollution, including administrative rules adopted by ODF that require implementation of best management practices for nonpoint source control.

Recommendations for the FEIS:

- Discuss the need for maintaining cold headwater streams and the role they play in maintaining natural thermal regimes that are important to species protection.
- Explain the applicability of Oregon's antidegradation provisions to the project. • Discuss the State of Oregon's responsibility to determine if lowering of water quality in headwater streams (i.e., increasing headwater stream temperatures) is necessary to accommodate important economic or social development in the area in which the waters are located.

Activities in Riparian Conservation Areas

The extent of forest harvest activities proposed to occur in the RCA is important for stream temperature considerations, and it is currently unclear in the DEIS and HCP. The DEIS lists "[a]ctivities related to stream enhancement or restoration" as an activity that would be permitted to occur in RCAs.[11] However, the HCP states that "ODF will establish [RCAs] adjacent to streams. The functions of streams within the permit area will be maintained by retaining vegetation in riparian areas during adjacent harvest activities. No harvest will occur within the RCAs."[12] In addition, the DEIS states that "[u]nder the HCP, ODF would implement timber harvest activities according to a new FMP [Forest Management Plan] that is being developed as a companion document to the HCP. The companion FMP would guide ODF's forest management activities in accordance with the HCP."[13]

The modeling effort to establish RCA widths associated with the alternatives used unharvested riparian buffer conditions,[14] and thus including thinning within the RCA would likely result in requiring wider required RCA buffer widths.

[9] Davies, T. U.S. Environmental Protection Agency. 1994. Memorandum: Interpretation of Federal Antidegradation Regulatory Requirement. Office of Water, Washington DC. https://www.epa.gov/sites/production/files/2014-10/documents/davies-regrequire-memo.pdf.
[10] https://www.oregon.gov/deq/FilterDocs/saMemoPNPreq.pdf.
[11] DEIS pg. 2-7.
[12] HCP pg. 712.
[13] DEIS pg. 2-3.
[14] HCP Appendix E.

Recommendations for the FEIS:

- Clarify the occurrence, or not, of thinning activities in the RCA in the FEIS, HCP, and upcoming companion FMP.

- Describe the procedures and assessment methods that will be used to evaluate the additional impact of tree removal within the RCA on stream shade conditions, and subsequently stream temperatures, if thinning activities are included as a potential management option within the RCA.
- Provide studies to support evaluating the temperature impacts from thinning within the RCA.

Sedimentation

Road activities and harvest activities can be a source of high sediment loading into project area streams. EPA appreciates the protective actions (i.e., implementing a new risk inventory and evaluation program) to address potential sediment sources from roads for Alternative 3, however it is not clear what sediment protection and monitoring efforts will be implemented if Alternative 3 is not chosen as the preferred alternative. While the DEIS states that "[s]ediment did not rank in the top three impairment causes for any basin,"[15] EPA notes that even without sediment listings on the Oregon 303(d) impaired waters list, excessive sediment loading in forested areas can result in water quality degradation. For example, the USEPA 2013/2014 National Rivers and Streams Assessment survey found that 24% of forested stream in the western mountains were in poor condition due to "excessive streambed sediments."[16] In addition, ODEQ reported that approximately 20% of forested streams in the Willamette basin were in poor condition due to "Percent Sands and Fines."[17]

The DEIS explains that Conservation Action 5 of Alternative 3 "would include a requirement for ODF to adopt a risk inventory and evaluation program that includes motorized roads and trails in RCAs…The protocol would systematically identify road/trail-related risks that threaten water quality and aquatic habitat, including road surface sediment production and delivery, mass wasting risk from road-related gullies and landslides, risks of stream diversion and crossing failures, and road hydrologic connectivity."[18] EPA supports such a risk inventory and evaluation program for all alternatives.

Recommendation for the FEIS:

- Include an evaluation of potential excessive sediment sources and associated impacts from road activities as described in Alternative 3 Conservation Action 5.
- Consider adopting a risk inventory and evaluation program for the other alternatives, rather than Alternative 3 only, especially if Alternative 3 is not chosen as the preferred alternative.
- Provide more detail for the risk inventory and evaluation program, including how problems will be identified, how they will be fixed, what entities are involved in implementing the program, and the timeline for agreeing to the protocol.

Environmental Justice

EPA is pleased that the DEIS analysis considers impacts to the community, including Tribal Nations and those with environmental justice (EJ) characteristics, that are both located within the project area and "rely

[15] DEIS pg. 3.4-5.
[16] U.S. EPA 2020. National Rivers and Streams Assessment 2013–2014: A Collaborative Survey. EPA 841-R-19-001. Washington, DC. https://www.epa.gov/national-aquatic-resource-surveys/nrsa.
[17] ODEQ 2009. Willamette Basin Rivers & Streams Assessment #206-932. https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.969.237&rep=rep1&type=pdf.
[18] DEIS pg. 2-12

on or hold value for the goods and services from lands and waters in the plan area."[19] As discussed in the DEIS, adverse impacts on habitat quality of most fish species could adversely affect recreational fishing in the study area. Recreation impacts under Alternative 5 (Increased Timber Harvest) are described as being the same as the Proposed Action and, due to benefits from increased timber sales, EJ populations would be less adversely affected. However, the DEIS describes the environmental consequences of fish and wildlife as such for Alternative 5: "Effects on covered salmonids under Alternative 5 compared to the no action alternative would be similar as described for the proposed action except that adverse effects related to harvest would increase with increased acreage of harvest and overall decrease in acres of HCAs [Habitat Conservation Areas]."[20] EPA recommends that the FEIS consider potential impacts to fish health in each alternative when evaluating recreational fishing.

Monitoring

EPA appreciates that project activities will be monitored to assess the implementation and effectiveness of the HCP in achieving conservation goals. Table 6-4 of the HCP provides an adaptive management response example for temperature, and we recommend adding the underlined addition: "potentially [revising] implementation plans during the subsequent 10-year planning cycle to modify amount and location of harvest in an affected watershed."[21]

[19] DEIS pg. 3.13-1
[20] DEIS pg. 3.6-12
[21] HCP Table 6-4