Protecting clean water and native fish in the waters of the Rogue.

Thomas Imeson, Chair
Oregon Board of Forestry
2600 State Street
Salem, OR 97310

May 31, 2019

RE: Agenda Item 5 Siskiyou Streamside Protections Revision and Decision

Dear Chair Imeson and Members of the Board:

Thank you for the opportunity to provide public comment on Agenda Item 5 Siskiyou Streamside Protections Revision and Decision. Rogue Riverkeeper works to protect and restore clean water and fish populations in the waters of the Rogue through advocacy, accountability, and community engagement. On behalf of our more than 3,500 members and supporters, we remain significantly concerned that the Siskiyou region's salmon and steelhead streams are currently left with weaker protections than those in the rest of western Oregon, following the Board of Forestry's November 2015 decision to exclude our region from the 2017 stream buffer rule.

The question before the Board is effectively whether compliance with current water protection rules for small and medium streams will ensure to the maximum extent practicable that forest operations will not cause stream warming prohibited by the Protecting Coldwater Criterion ("PCW") under the state's water quality standards for temperature. In other words, do current stream buffer standards in the Siskiyou reliably meet the PCW? As discussed below and in previous comments for this meeting, the only defensible answer based on available information is "No, the rules are not adequate to prevent warming."

The results of ODF's "RipStream" study (Groom et al. 2011) demonstrated that logging practices under the existing rules resulted in warmer streams that violated the PCW. The 2012 finding of resource degradation was not restricted geographically to exclude the Siskiyou until 2015. Since 2015, we have submitted extensive comments regarding the impacts of not reliably meeting the PCW in the Rogue watershed, which supports threatened Southern Oregon/Northern California Coast ("SONCC") coho salmon and where many waterways are listed as impaired for temperature with existing TMDLs.

We urge you to act based on due consideration for all available information and the history of this issue at the Board to find that the current water protection rules for the Siskiyou do not meet stated objectives and a resource is being degraded under ORS 527.714 and 527.765.

Specifically, we ask the Board to vote "YES" on the following motions:

1. "The Board finds that the RipStream study and related administrative record and DEQ stream temperature TMDLs and associated modeling should be considered in assessing the adequacy of forest practices regulations applicable to small and medium fish streams in the Siskiyou region".

2. "The Board finds that existing forest practices regulations applicable to small and medium fish streams in the Siskiyou region do not meet stream temperature water quality objectives and are degrading protected water resources under ORS 527.714 (5)(a)."

3. "The Board directs staff to recommend a process and timeline for the Board to approve a specific rule change proposal and initiate formal rulemaking by April, 2020, with final rule adoption by the end of 2020. Alternatives evaluated shall include but not be limited to the same SSBT rule prescriptions effective in the rest of western Oregon effective July 2017."

I. There is a sound scientific basis for a degradation finding for the Siskiyou.

The Rogue River watershed stretches across more than 3 million acres, from its headwaters near Crater Lake to the mouth of the river along Oregon's southern coast at Gold Beach. The Rogue Basin includes approximately 1 million acres of private forest land managed under the Oregon Forest Practices Act. The 2002 statewide sufficiency analysis and the results of the RipStream study in 2011 demonstrated that current stream buffer rules under the Forest Practices Act are not protective of stream temperature and violate the Protecting Cold Water (PCW) water quality standard.[1] Under ORS 527.765(1), the Board is required to establish regulations and best management practices to "insure that to the maximum extent practicable" water quality standards are achieved and maintained. Critically, the PCW water quality standard applies statewide in streams that support salmon, steelhead, and bull trout ("SSBT") and to upstream stream reaches necessary to meet the criterion downstream.

1) The results of the Systematic Evidence Review ("SER") are not inconsistent with RipStream and the relationship between riparian shade and stream temperature.

Throughout the public comment on the draft Systematic Evidence Review ("SER"), we raised serious concerns about the narrow scope of review. The final SER excludes multiple studies that should inform this issue, including the 2011 RipStream study as well as TMDL data from DEQ. Even in light of the narrow scope of review for the Systematic Evidence Review ("SER") documented in previous comments, the results of the report have not demonstrated any inconsistencies with the results of the 2011 RipStream study. The studies included in the SER demonstrate a direct response to temperature as a result of management practices. This is aligned with the findings in "Protecting Coldwater for Salmon and Steelhead on Private Timberland Streams of Oregon's Siskiyou Region: A Synoptic Scientific Look at Stream Warming, Shade, and Logging" by Frissell and Nawa that evidence in the scientific literature does not demonstrate that the relationship between stream warming and shade in the Siskiyou is any different than in the rest of western Oregon (Coast Range, South Coast, Interior, and Western Cascade geographic regions, *see* OAR 629-635-0220).[2]

[1] Groom et al. 2011. *Response of Western Oregon (USA) stream temperature to contemporary forest management*, Forest Ecology and Management, 262: 1618-1629.

[2] Frissell, Chris and Rich Nawa. 2016. Protecting Coldwater for Salmon and Steelhead on Private Timberland Streams of Oregon's Siskiyou Region: A Synoptic Scientific Look at Stream Warming, Shade, and Logging.

2) Existing science demonstrates that the relationship between temperature and shade removal is well established.

The science is clear that removing trees near streams reduces shade and can increase stream temperature. The 2004 Independent Multidisciplinary Science Team (IMST) report emphasized the impact of stream buffers, concluding that "the vast majority of published studies document that riparian shade has a significant effect on stream temperature." [3] In the RipStream study conducted by Groom et al. and the basis for the new stream buffer standard, the authors state that:

> "For streams adjacent to harvested areas on privately owned lands, preharvest to postharvest year comparisons exhibited a 40% probability of exceedance. Sites managed according to the more stringent state forest riparian standards did not exhibit exceedance rates that differed from preharvest, control, or downstream rates (5%)."[4]

Groom et al. further state that:

> "The principal results of this study are applicable to the policy issue at hand; the results may directly inform timber management decisions in Oregon and may apply to other timber-harvesting regions with antidegradation or cold-water standards."[5]

These findings were not restricted geographically, but rather were designed to inform policy across the state, including the Siskiyou region.

Further, as just one example, data from the Sucker Creek TMDL (1999) demonstrate a relationship between stream temperature increase and loss of riparian cover and effective shade that is approximately the same magnitude as reported for streams in western Oregon by Groom et al. in the RipStream study.[6] Frissell and Nawa further state that:

> "The evidence from these TMDL data and modeling projections appear to fall well in line with Ripstream results and predictions from sites in other western Oregon streams, offering no evidence that Siskiyou Region streams operate differently with regard to the thermal effects of shade and shade loss."[7]

The Board should consider the RipStream study and related administrative record and DEQ stream temperature TMDLs and associated modeling in assessing the adequacy of forest practices regulations applicable to small and medium fish streams in the Siskiyou region.

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[3] Independent Multidisciplinary Science Team. 2004. Oregon's Water Temperature Standard and its Application: Causes, Consequences, and Controversies Associated with Stream Temperature. Technical Report 2004-1 to the Oregon Plan for Salmon and Watersheds, Oregon Watershed Enhancement Board, Salem, Oregon, p. 8.

[4] Groom, Jeremiah, Liz Dent, and Lisa Madsen. (2011). Stream temperature change detection for state and private forests in the Oregon Coast Range. Water Resources Research. Vol. 47. P. 2.

[5] Groom, Jeremiah, Liz Dent, and Lisa Madsen. (2011). Stream temperature change detection for state and private forests in the Oregon Coast Range. Water Resources Research. Vol. 47. P. 2.

[6] ODEQ (Oregon Department of Environmental Quality). 2002. Lower Sucker Creek Illinois River Subbasin Total Maximum Daily Load and Water Quality Management Plan. Portland, OR. 122 pp.

[7] Frissell, Christopher A. and Richard K. Nawa. (2016). Protecting Coldwater for Salmon and Steelhead on Private Timberland Streams of Oregon's Siskiyou Region: A Synoptic Scientific Look at Stream Warming, Shade, and Logging. 2016. P. 6.

3) DEQ identifies removing trees in riparian areas as one of the main reasons for not meeting water quality standards for temperature.

In the Board materials for the meeting, ODF includes a synopsis from DEQ which specifically points to current forest practices near streams as a primary reason for 303(d) listed streams not meeting state water quality standards for temperature. The Siskiyou Streamside Protections Review: Decision-making Support document states:

> "The Oregon Department of Environmental Quality (DEQ) presented a synopsis of relevant water quality information for the Board (Attachment 4). One of the main reasons, identified in many TMDLs, for not meeting water quality standards for temperature is lack of shade, often from removing trees in the riparian areas" (p. 7).

DEQ in its 2017 Water Quality Status and Trends for the Inland Rogue Basin identifies 18 monitoring stations in the watershed that all have forested land uses, ranging from 39 percent forested to 87 percent forested. Each monitoring station had eight or more years of data. Thirteen of the monitoring stations had one or more exceedances of the seven day average of the daily maximum stream temperatures within the last two years of available data.[8] Although this type of existing analysis was not included in the SER, the Board should consider this and other supporting information.

II. Current stream buffer standards are not protective of threatened coho salmon in the Siskiyou.

Beyond compliance with the PCW water quality standard, there is evidence that current stream buffer standards in the Siskiyou are not protective of threatened salmonids. In 1999, the IMST linked the health of salmonids to stream temperature. In reviewing existing stream buffer standards, the 1999 IMST report found that:

> "Current rules for riparian protection, large wood management, sedimentation, and fish passage are not adequate to reserve depressed stocks of wild salmonids."[9]

These rules are currently still in place in the Siskiyou. Critically, the Rogue watershed supports Southern Oregon/Northern California Coast (SONCC) Evolutionarily Significant Unit (ESU) of coho salmon, listed as a threatened species under the Endangered Species Act first in 1997 and reaffirmed in 2005.[10] The 2014 Final SONCC Coho Recovery Plan from NOAA Fisheries states that the Oregon Forest Practices Act and related regulations are the least protective within the SONCC coho ESU.[11] NOAA Fisheries further states that:

> "Because of the preponderance of private timberland and timber harvest activity in the range of this ESU, and potential adverse effects, careful consideration of state forest practices rules and regulations is prudent. At the time of listing, most reviews of the

[8] Inland Rogue Subbasin: DEQ's Water Quality Status and Trends Analysis for the Oregon Department of Agriculture's Biennial Review of the Agricultural Area Rules and Plans. Oregon Department of Environmental Quality. July 2017. P. 6.
[9] Independent Multidisciplinary Science Team (IMST). 1999. Recovery of Wild Salmonids in Western Oregon Forests: Oregon Forest Practices Act Rules and the Measures in the Oregon Plan for Salmon and Watersheds Technical Report 1999-1. p. 2
[10] 2014 SONCC plan http://www.nmfs.noaa.gov/pr/recovery/plans/cohosalmon_soncc.pdf p. ES3-ES4
[11] Final Recovery Plan for the Southern Oregon/ Northern California Coast Evolutionarily Significant Unit of Coho Salmon (*Oncorhynchus kisutch*). NOAA Fisheries. 2014. P. 3-57.

> forest practice rules indicated that implementation and enforcement of these rules did not adequately protect coho salmon or their habitats (CDFG 1994, Murphy 1995, Ligon et al. 1999, IMST 1999)."[12]

Further, in the presentation by Oregon Department of Fish and Wildlife (ODFW) provided by ODF to the Board for this meeting, ODFW states that:

> "Relative to more northerly coastal basins in Oregon, the Siskiyou Region tends to be warmer and drier (on an annual basis), and streams are generally characterized by steeper gradients."[13]

Regarding impacts to sensitive fish species, ODFW states:

> "Limiting factors for fish populations in the Siskiyou Region include stream temperatures, flow/water availability, habitat complexity and connectivity, and interactions with nonnative species. While these limiting factors are not unique to this region, some take on special importance here. For example, the Rogue River has a history of substantial fish kills associated with disease outbreaks when low flows and high temperatures coincide with high fish densities (i.e., spawning migration periods).
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> …
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> Temperatures, instream water availability and the ability of fish to move among habitats at multiple life stages (i.e., fish passage) take on increased importance in the Siskiyou Region relative to other coastal basins with more widespread cool, perennial flows." [14]

In summary, inadequate stream buffer standards remain a significant threat to the recovery of native salmonids in the Rogue watershed.

III. **Disapproval of the Oregon Coastal Nonpoint Program under CZARA**

On January 30, 2015, EPA and NOAA determined that Oregon has not submitted a fully approvable Coastal Nonpoint Pollution Control Program (CNPCP) as required under the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA). The 2015 EPA and NOAA decision specifically points to inadequate stream buffer standards, stating:

> "…the State has not implemented or revised management measures, backed by enforceable authorities, to (1) protect riparian areas for medium-sized and small fish-bearing (type "F") streams and non-fish-bearing (type "N") streams."[15]

And further that:

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[12] Final Recovery Plan for the Southern Oregon/ Northern California Coast Evolutionarily Significant Unit of Coho Salmon (*Oncorhynchus kisutch*). NOAA Fisheries. 2014. P. 3-54.
[13] Synopsis: Status and Trends of Fish Populations in the Siskiyou Region. Oregon Department of Fish and Wildlife. 9 January 2019. P. 1.
[14] Synopsis: Status and Trends of Fish Populations in the Siskiyou Region. Oregon Department of Fish and Wildlife. 9 January 2019. P. 1-2.
[15] NOAA/EPA Finding that Oregon has not submitted a fully approvable Coastal Nonpoint Program. 30 Janaury 2015. P. 4.

> "Based on the results of a number of studies including those summarized below, NOAA and EPA previously determined and continue to find that additional management measures (beyond those in FPA rules and the voluntary program) for forestry riparian protection around medium-sized and small fish-bearing streams and non-fish-bearing streams are necessary to attain and maintain water quality standards and to protect designated uses. Therefore, Oregon must still adopt and implement management measures applicable to the forestry land use and forested areas in order to protect small and medium-sized fish-bearing streams and non-fish-bearing streams from water quality impairments attributable to forestry practices in riparian areas."[16]

After citing the results of the 1999 IMST study, the 2002 Sufficiency Analysis, and the 2011 RipStream study, the findings document regarding stream buffers for small and medium fish-bearing streams concludes:

> "NOAA and EPA acknowledge that Oregon is working to address some of the inadequate riparian protection measures in the FPA. The Board has the authority to regulate forest practices through administrative rule making and require changes to the FPA rules to protect small and medium- sized fish-bearing streams. Recognizing the need to better protect small and medium Type F streams, the Board directed ODF to undertake a rule analysis process that could lead to revised riparian protection rules. At its September 2014 meeting, the Board voted unanimously in favor of continuing to analyze what changes might be needed in the Oregon Forest Practice Rules to provide greater buffer protection for medium-sized and small fish-bearing streams on private forest lands. NOAA and EPA encourage the State to move forward with this rule-making process expeditiously."[17]

However, as stated previously, the Board made a decision to exclude the Siskiyou region (as well as eastern Oregon) from the 2017 stream buffer rule. This leaves the Siskiyou with stream buffer standards determined to be inadequate by EPA and NOAA.

Beyond the ecological costs of inadequate stream buffers, the disapproval of the Oregon Coastal Nonpoint Program has resulted in ongoing financial costs to the state. As provided by DEQ staff, total reductions to DEQ's 319 program and DLCD's Oregon Coast Management Program (OCMP) since the disapproval in 2015 has resulted in a total loss of $4.6 million in federal funding to the state.[18]

CZARA-related penalties since 2015 disapproval

Year	DEQ 319 grant penalty	DLCD penalty
FFY2015	$631,500 (out of $2,083,000)	$598,800 (of $1,996,600)
FFY2016	$435,540 (out of $2,153,000)	$637,500 (of $2,125,000)
FFY2017	$516,000 (out of $2,227,000)	$637,500 (of $2,125,000)
FFY2018	$509,100 (out of $2,202,000)	$696,900 (of $2,323,000)

[16] NOAA/EPA Finding that Oregon has not submitted a fully approvable Coastal Nonpoint Program. 30 Janaury 2015. P. 4.
[17] NOAA/EPA Finding that Oregon has not submitted a fully approvable Coastal Nonpoint Program. 30 Janaury 2015. P. 7.
[18] R. vanden Hoof, personal communication, 30 May 2019.

IV. Conclusion: The Board has a duty to Act, starting with a finding that the current FPA rules do not adequately protect Small and Medium Streams from shade loss and stream warming

There is a sound scientific basis for a degradation finding for the Siskiyou that current rules are not adequate to prevent warming. Even in light of significant concerns regarding the narrow scope of the Systematic Evidence Review ("SER"), the results of the report before the Board are not inconsistent with the 2011 RipStream study and the fundamental relationship between stream temperature and shade. Further, existing information that was not included in the SER, such as the RipStream study and DEQ data, provide further evidence that current rules in the Siskiyou are not adequate to meet water quality standards. In the synopsis provided by ODF, DEQ specifically identifies removing trees in riparian areas as one of the main reasons for not meeting water quality standards for temperature. The Board should review the evidence that current stream buffer standards are not protective of threatened salmonids in the Siskiyou region. Finally, the Board should consider the ongoing disapproval of the Oregon Coastal Nonpoint Program due to inadequate stream buffers that results in an annual 30% reduction in federal funds to support water quality and restoration efforts under Section 319 and the Oregon Coast Management Program. This penalty has resulted in a loss of $4.6 million to these programs since 2015.[19]

In conclusion, we urge you to act based on due consideration for all available information and the history of this issue at the Board to find that the current water protection rules for the Siskiyou do not meet stated objectives and a resource is being degraded under ORS 527.714 and 527.765.

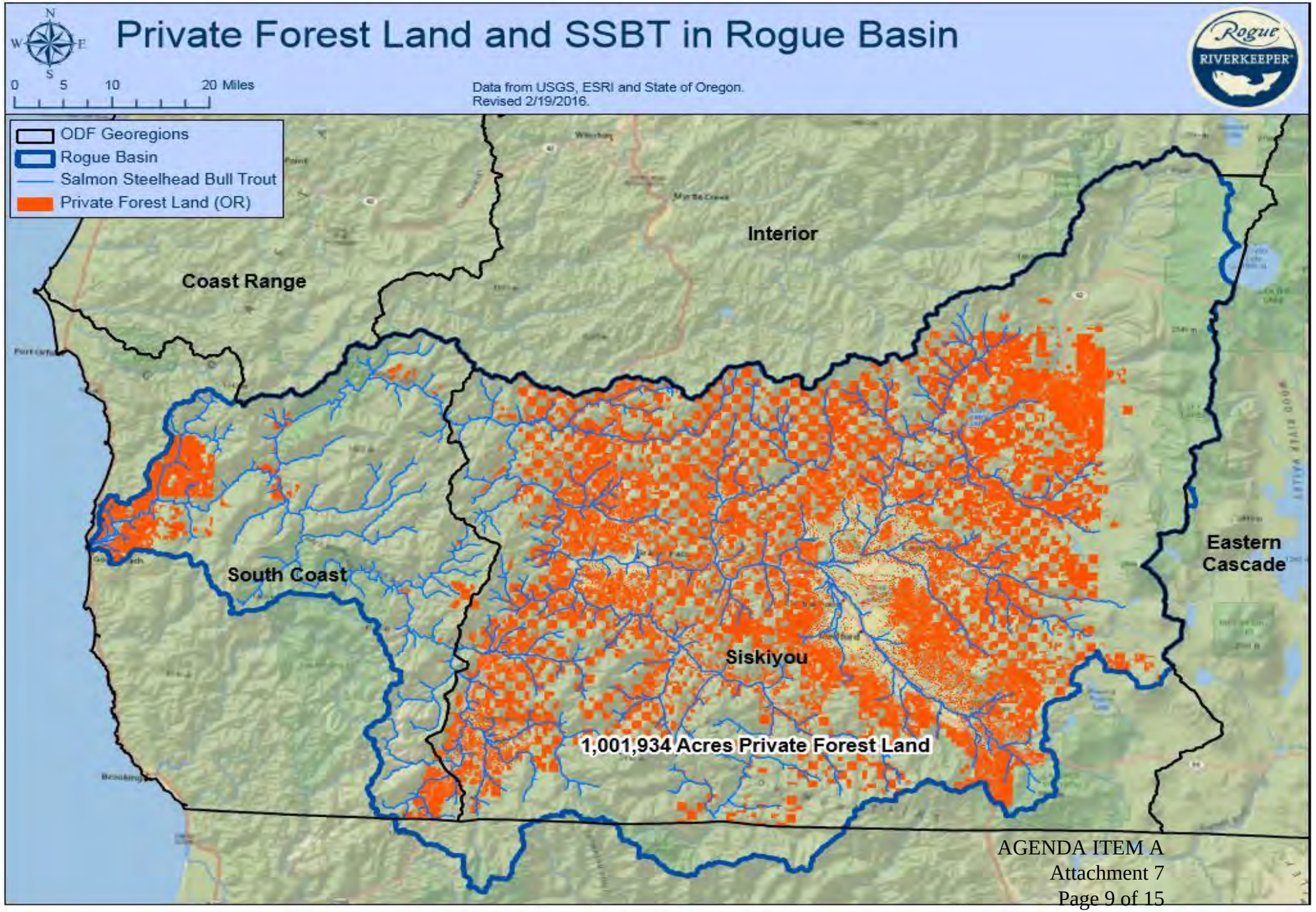
Sincerely,

Stacey Detwiler
Conservation Director
Rogue Riverkeeper

[19] R. vanden Hoof, personal communication, 30 May 2019.

Agenda Item 5 Siskiyou Streamside Protections

Private forestlands and salmon, steelhead streams in the Rogue watershed left with old buffer standard.



Board of Forestry, uphold your mission

Mail Tribune

by Lydia Doleman | Sunday, May 26th 2019

The Oregon Board of Forestry has a responsibility and an obligation to uphold its mission in its decisions. Excluding the Siskiyou bioregion from increased stream buffers seems counter to that mission. I believe we can do better for our watersheds, our communities and our future. You can speak up by asking the Board of Forestry to include the Siskiyou Region in increased stream buffers rules like the rest of Western Oregon.

What legacy do you want to leave?

Lydia Doleman lives in the Little Applegate with her daughter, owns Flying Hammer Productions and is the co-founder of the nonprofit Speak for the Trees.

And for the following members of the Oregon Stream Protection Coalition

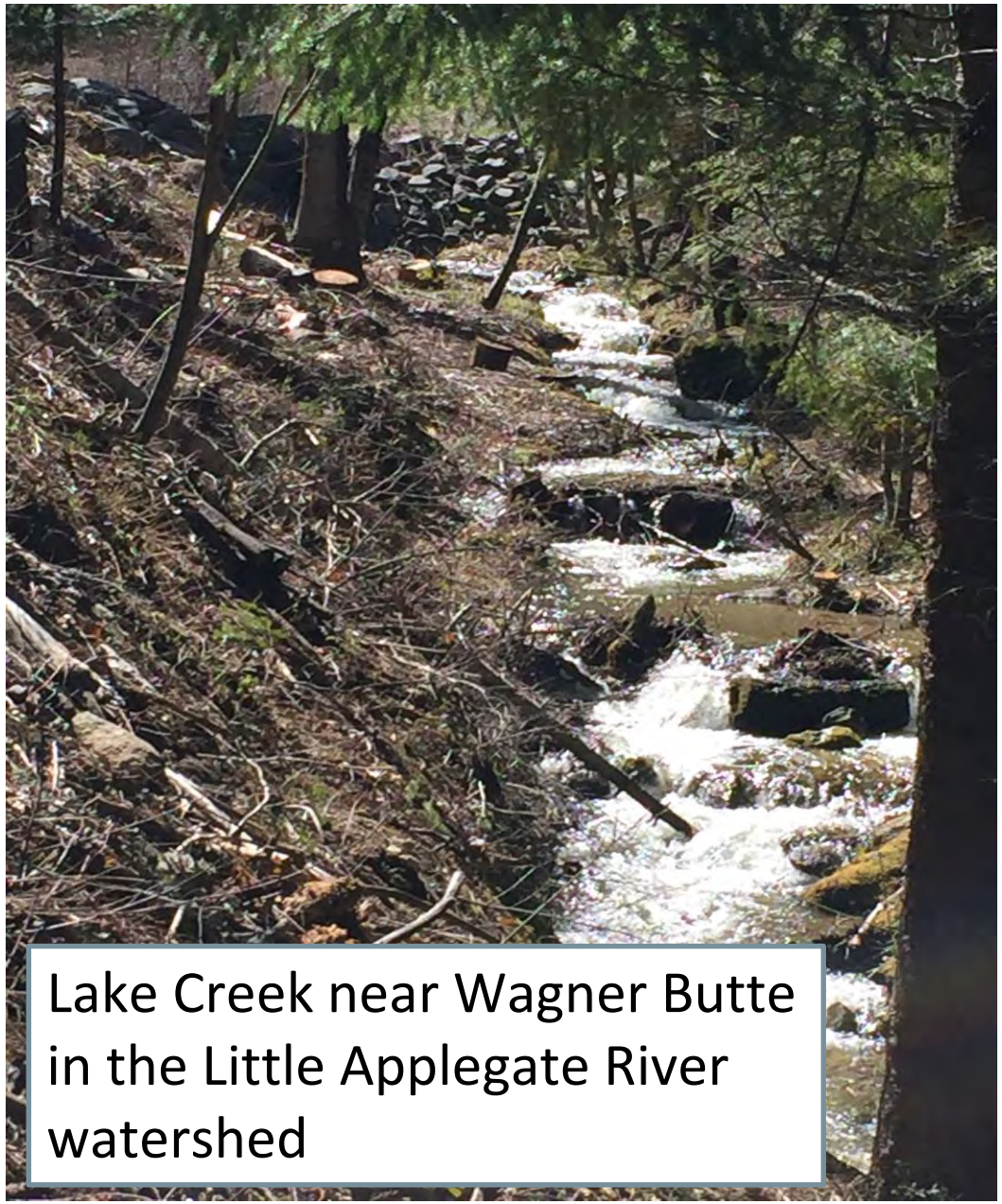
Association of Northwest Steelheaders
Audubon Society of Lincoln City
Audubon Society of Portland
Cascadia Wildlands
Center for Biological Diversity
Coast Range Association
Defenders of Wildlife
Greater Hells Canyon Council
Institute for Fisheries Resources
KS Wild
McKenzie Flyfishers
Native Fish Society
Northwest Environmental Advocates
Northwest Guides and Anglers
Northwest Sportfishing Industry Association
Oregon Wild
Pacific Coast Federation of Fishermen's Associations
Pacific Rivers
Rogue Riverkeeper
Sierra Club
Trout Unlimited
Umpqua Watersheds
Washington Forest Law Center
WaterWatch of Oregon
The Wetlands Conservancy
Wild Earth Guardians
Wild Salmon Center

MEDFORD WATER COMMISSION

Strengthening the rules in the Siskiyou Region to the level of the rest of western Oregon is a prudent, protective approach, and one which the Board of Forestry should adopt without hesitation.

Do current stream buffer requirements in the Siskiyou reliably meet the Protecting Cold Water standard?

Big Butte Creek in the Upper Rogue watershed



Lake Creek near Wagner Butte in the Little Applegate River watershed

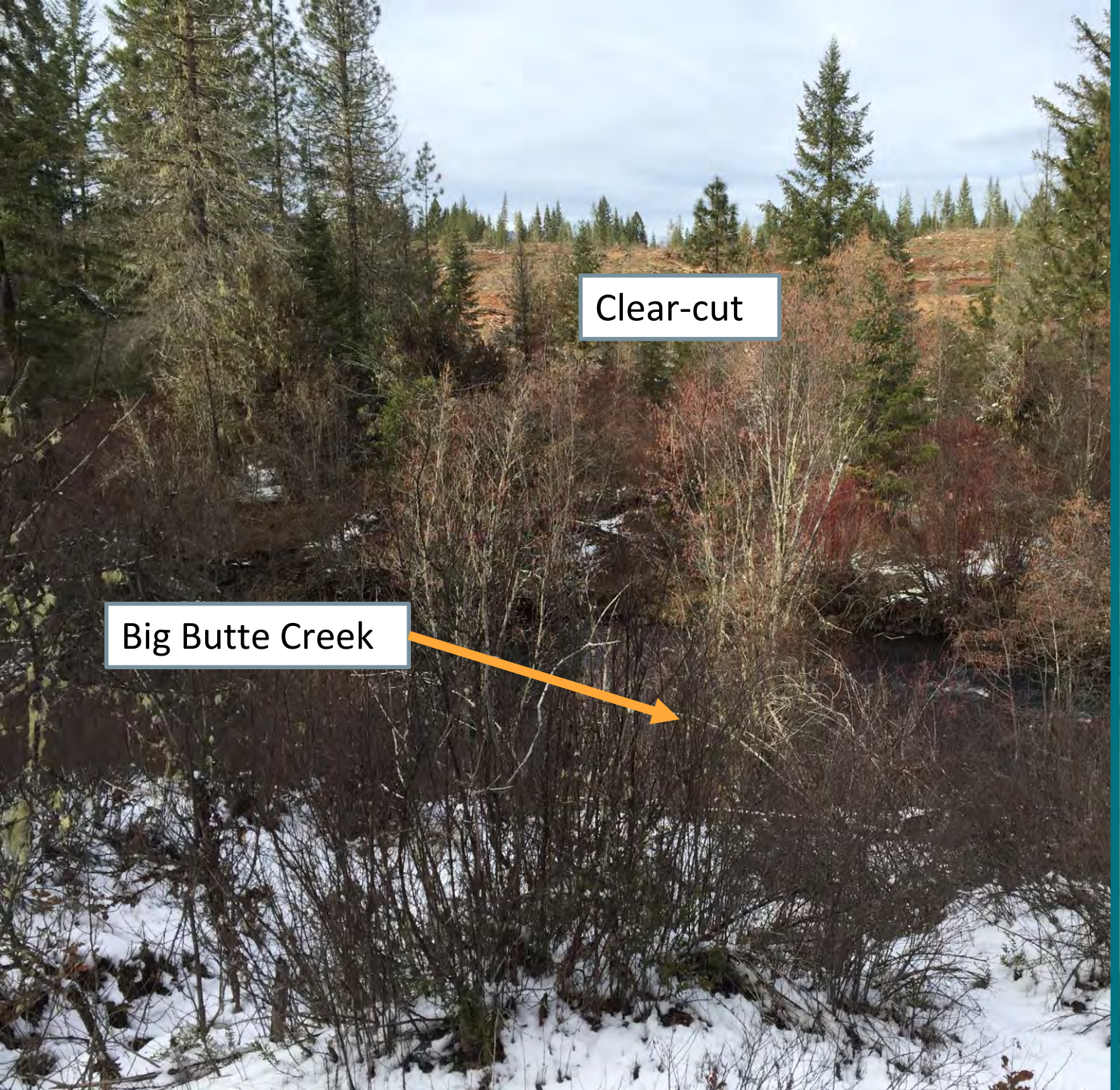
Pleasant Creek in the Evans Creek watershed

Big Butte Creek in the Upper Rogue watershed

"For **streams adjacent to harvested areas on privately owned lands**, preharvest to postharvest year comparisons **exhibited a 40% probability of exceedance.** Sites managed according to the more stringent state forest riparian standards did not exhibit exceedance rates that differed from preharvest, control, or downstream rates (5%)."

– 2011 "RipStream" study

Groom, Jeremiah, Liz Dent, and Lisa Madsen. (2011). Stream temperature change detection for state and private forests in the Oregon Coast Range. Water Resources Research. Vol. 47. P. 2.


Clear-cut
Big Butte Creek


Big Butte Creek
Clear-cut

Lake Creek near Wagner Butte in the Little Applegate River watershed

McDonald Creek near Wagner Butte in the Little Applegate River watershed

The Board has a duty to Act, starting with a finding that existing forest practices regulations applicable to small and medium fish streams in the Siskiyou region do not meet stream temperature water quality objectives and are degrading protected water resources under ORS 527.714 (5)(a).”