



Salmon River Restoration Council

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Matt St. John
North Coast Regional Water Quality Control Board
5500 Skylane Blvd, Suite A
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Subject: Removal of Wooley Creek from the 303 (d) list of California Impaired Rivers under the Clean Water Act, as identified in Decision 9540.

To: North Coast Regional Water Quality Control Board

From: Salmon River Restoration Council

Dear Matt St. John,

Thank you for this opportunity to provide comments and feedback on the 303(d) delisting of Wooley Creek for temperature impairment. The Salmon River Restoration Council (SRRRC) opposes this delisting.

The SRRRC has been actively engaged over the years in helping the North Coast Regional Water Quality Control Board (Water Board) develop the technical TMDL assessment for Salmon River temperature and nutrients. We are also co-author of the Salmon River Subbasin Restoration Strategy which was adopted by the Water Board as the Salmon River TMDL Implementation Plan. The SRRRC is currently in the process of implementing several projects to address TMDL related restoration and protection activities that affect water quality, and in particular, reduce temperatures in the Salmon River. In addition, the SRRRC was supportive of the Water Board's action to remove the Salmon River from the 303(d) list for nutrient impairment.

We are aware that the Water Board is in the process of removing Wooley Creek, a key component of the Salmon River watershed, from the 303(d) list. We were first made aware of this action in 2007, when the Siskiyou Resource Conservation District (RCD) petitioned the Klamath National Forest to initiate the delisting of Wooley Creek. We subsequently met with the RCD and the USFS and expressed our concerns as to why we thought that the delisting of Wooley Creek was inappropriate. We sent a letter to the USFS and the RCD stating our reasons for not supporting this delisting.

We did not hear of any further actions on the delisting from the USFS, RCD, or the Water Board until recently. In early March of this year, we learned that the Wooley Creek Hydrologic Sub-Area had been removed from the Salmon River Hydrologic Area in order to pursue its delisting. We have various concerns, additional information and recommendations regarding this delisting that are summarized in the following text.

In the future, we would encourage you to include the SRRRC in all actions related to the Salmon River TMDL.

Response to Lines of Evidence

LOE 21154 Road Density

Although the density of roads in the Wooley Creek watershed is low, there are several miles of roads in the watershed that have not been decommissioned. Some are maintained by the USFS and some are not. In addition, several miles of road were recently decommissioned in the lower portion of the Wooley Creek watershed. Observations suggest that there continue to be significant runoff and sedimentation problems in the Steinacher Road decommissioning project. No long term monitoring is being performed to document these problems and no information is currently on record for the effects of road management on water temperature in Wooley. The short and long term impacts of road management in Wooley Creek should be documented and incorporated into any final recommendations for the delisting of Wooley Creek. In addition we would like to see all road related problems in the Wooley drainage prioritized for restoration.

LOE 21155 % Human Disturbance

This LOE is based on the statement that, "Much less than 15% of the Wooley Creek watershed has been or is currently disturbed by human activities." This is incorrect. Although 95% of the watershed is designated Wilderness Area, there are both past and current human disturbances.

The primary human impact to Wooley Creek has been 100 years of fire suppression, beginning with the Weeks Act in 1911. The Salmon River Community Wildfire Protection Plan states that, "Much of the Salmon River watershed is at risk of **unnaturally** severe fire. Years of fire suppression have had its effect on the fuels build up of the area... Fire suppression...has contributed to the increased fire risk and damage from fire in our forests." Because of fire suppression (a human activity), the fire history and burn severity in Wooley Creek is unnatural. 82% of the Wooley Creek watershed has been affected by wildfires in the past 100 years (see attached Wooley Creek fire history map). Much of that area has burned/reburned in the past 3 years.

The exclusion of natural fire by the USFS has created conditions that affect water temperatures in Wooley Creek. The unnatural vegetation regime, overstocked with conifers, has reduced the base flows in Wooley Creek. Additionally, the resulting wildfires have reduced riparian vegetation and increased sedimentation. All of these factors directly affect water temperatures. The long term impacts to water temperature as a result of 100 years of altering the natural fire regime should be identified and included in the delisting process, prior to a final determination.

In addition to fire suppression and the resulting severe wildfire events, Wooley Creek has been impacted by extensive livestock grazing. Historically, Wooley Creek was intensively grazed by both sheep and cattle, which have had a long term impact on riparian conditions, potentially increasing water temperatures. Currently 11% of the Wooley Creek watershed is held in cattle grazing allotments (see attached map). Although specific data for the Wooley Creek grazing allotment does not exist, we have accounts from local wilderness users stating that runoff of both nutrients and sediment in these areas is severe during first flush events. According to a report by Spence et al. (1996), "Grazing results in the removal of natural vegetation, the alteration of plant-community composition, and the modification of soil characteristics, which in turn affect hydrologic and erosional processes. Effects are particularly acute in the riparian zone, where livestock tend to congregate, attracted by water, shade, cooler temperatures, and an abundance of high quality forage... Devegetated riparian zones reduces shading and increases summer stream temperatures - often in streams where temperatures are near the upper limit of the tolerable range for salmonids." Cattle grazing is authorized by the USFS and is likely to persist in the Wooley Creek watershed into the future. Short and long term impacts need to be documented and included in the delisting process prior to a final determination.

LOE 26643 Natural Receiving Water Temp

This LOE relies on the assumption that Wooley Creek has not been altered by human activities, and therefore the water temperature does not exceed natural receiving levels. Based on our argument that much more than 15% of the Wooley Creek Watershed has been affected by human activities, the natural receiving water temperature of Wooley Creek has been altered. In which case, its MWAT values of 16.1-25.6 C are well above the 16C recommendation for fish health laid out in the Evaluation Guideline.

The LOE also erroneously states that “There are no known environmental conditions (e.g., seasonality, land use practices, fire events, storms, etc.) that are related to these data.” The data collected during July-October 2006 was taken during a severe wildfire event. Recent analysis of the effects of heavy smoke cover and reduced solar radiation on water temperature during the 2008 fire event in the Salmon River watershed indicates that heavy smoke inversions decrease water temperatures. The temperature data from summer 2006 were collected during a severe smoke inversion and therefore represent atypically cool water temperatures. It is incorrect to state that this data is not related to a fire event.

Even with below average water temperatures, temperatures for much of the summer of 2006 were in exceedance of the Evaluation Guidelines (please refer to QVIR and Karuk Tribe comments for data analysis). Wooley Creek is not meeting the temperature criteria for the protection of the cold-water fishery. High temperatures are known to be deleterious to anadromous fish. Current runs of anadromous fish species in Wooley Creek are demonstrably lower than historic runs (USFS and Karuk Tribal records on Spring Chinook and Summer Steelhead). According to the NRC report on Klamath Fisheries, “The principal habitat for spring-run Chinook salmon and summer steelhead in the Salmon River drainage today is Wooley Creek (Moyle et al. 1995, Moyle 2002).” Although Wooley Creek has suitable habitat for Spring Chinook, the population is critically low. The reasons for this remain somewhat mysterious. There has been inadequate assessment of the relationship between high water temperatures, which exceed standards, and the human caused short and long term impacts in Wooley Creek that we have documented in this submission.

LOE 21156 Sediment

This data does not include the effects of the 2008 wildfires, which burned 34,443 acres in the Wooley Creek drainage. We also question the results of a model that requires landslide/mass-wasting volumes of 200% over background conditions, and surface erosion volumes of 400% over background conditions, before the impacts become a cause for concern.

Recommendations

- 1) The Water Board should not make a final recommendation for the delisting of Wooley Creek, until the existing data on file for the time period subsequent to 2006 has been included and adequately incorporated into the delisting assessment and determination process for Wooley Creek.
- 2) The Water Board staff should review its determination that the natural receiving water temperature of Wooley Creek has not been altered by human activities. As stated above, there have clearly been additional human caused impacts to the watershed that were not considered in the delisting evaluation, and which have likely damaged Wooley Creek and its riparian reserves. Therefore this determination is premature and in error.

- 3) If the Water Board proceeds with delisting, we recommend that a resolution be made stating that Wooley Creek will continue to be managed under the guidelines currently laid out in the Salmon River TMDL and Implementation Plan.
- 4) The Salmon River Hydrologic Sub-area should be returned to the Salmon River Hydrologic Area if Wooley Creek is not delisted at this time.

Conclusion

In conclusion, we ask that the Water Board revise the current recommendation by developing a more accurate description and understanding of the human related impacts to water temperatures in Wooley Creek. Until a more adequate description and assessment of human caused impacts is completed, and appropriate restoration and management actions are accomplished, we recommend that the Water Board not make a determination to delist Wooley Creek.

Wooley Creek is designated as a “key watershed.” The Karuk Tribe ranked Wooley Creek as its highest priority for restoration due to its habitat condition requirements for Salmonids (Soto et al. 2003). It provides critical habitat for spring Chinook, and is an important watershed for research and monitoring. We are concerned that this delisting will de-prioritize it for getting adequate protection and restoration. Consideration needs to be given to the possibility that this delisting will reduce the opportunity for funding research/monitoring and restoration projects in this important watershed. The SRRC has past experience with this issue. As a result of the denial to list the Salmon River for sediment impairment, a grant submission for sediment monitoring was turned down, based upon the Salmon River’s lack of a TMDL for sediment. We do not want to see this dynamic negatively impact future opportunities to restore and protect the Wooley Creek watershed.

If you have any questions or additional needs from us, please do not hesitate to contact us regarding this delisting or other matters related to the Salmon River. We look forward to continuing to work together to make the Salmon River a better place for water quality, the fish, the people and for all beneficial uses.

Sincerely,

Lyra Cressey
Water Monitoring Program Coordinator

Petey Brucker
Executive Director

References

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