UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
1655 Heindon Road
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In response refer to: 10012WCR2016AR00011

Jim Burke,
Alydda Mangelsdorf
North Coast Regional Water Quality Control Board
5550 Skylane Blvd. Suite A
Santa Rosa, California 95403

Subject: Comments on Upper Elk River Watershed Waste Discharge Requirement Draft Order R1-2016-004

Dear Mr. Burke and Ms. Mangelsdorf:

The National Marine Fisheries Service (NMFS) appreciates the opportunity to provide comments on the Upper Elk River Watershed Waste Discharge Requirement (WWDR) Draft Order R1-2016-004. Based on scientific peer review and stakeholder comments, the Peer Review Draft Staff Report was revised and resubmitted by Tetra Tech on October 21, 2015. Immediately following the Tetra Tech report, the North Coast Regional Water Quality Control Board (NCRWQCB) released the draft Order R1-2016-004 on November 18, 2015. The draft Order proposes new restoration actions and conservation measures, differing from those originally recommended in the Peer Review Draft Staff Report. The Tetra Tech 2015 report identifies a segment of the Elk River watershed located at the North and South Fork confluence as the "impact reach". This reach currently has almost zero assimilative capacity for sediment, and continues to aggrade over time (HRC 2014, Tetra Tech 2015).

Upstream of the "impact reach", there is no detectable trend in physical habitat conditions (pool depths, particle size of substrate, LWD) or suspended sediment load over the last decade, so it appears these reaches are being maintained in their current condition by Humboldt Redwood Company's (HRC) habitat conservation plan measures (HRC 2014, Sullivan et al. 2012, Lewis 2013). Increased aggradation (Lewis 2013) and lack of substrate coarsening over the last decade (HRC 2014) indicate the "impact reach" continues to aggrade, meanwhile reaches upstream of the "impact reach" appear to be properly functioning with no discernable trends observed. NMFS is concerned that the draft Order is focused on upstream sediment sources and completely dismissive of conditions in the lower river. A comprehensive understanding of the channel conveyance from the forks of the Elk River to Humboldt Bay is needed before any restorative recommendations can be made to resolve the "impact reach".

The cross sections, longitudinal profile, and valley slope surveys recently presented at the Elk River Technical Advisory Committee meeting on December 11, 2015 (Pryor 2015, Stallman 2015) imply that the channel capacity decreases with decreasing thalweg slope in the downstream direction. These observations suggest a problem with the river's ability to route both flood water and suspended sediments within the channel, which are validated by the nuisance flooding and continued aggradation of the "impact reach". The decreasing conveyance capacity in the downstream direction may cause effects further upstream in the "impact reach", similar to the effects of a dam backing up flood waters. Addressing upstream sediment sources does not necessarily address the conveyance problems observed in the lower river, and will likely be unsuccessful in abating the nuisance flooding issues.

We encourage the NCRWQCB to consider restorative actions to address the conveyance problems in the lowest reaches described above before considering other restorative actions upstream. Increasing the conveyance capacity in the lower reach may require multiple channels as well as an increase in tidal areas to provide a larger tidal prism. We believe that projects designed to provide multiple channels in specific reaches of lower Elk River may enable the river to flow at maximum conveyance capacity during those flow events when most of the sediment is mobilized and that increasing the tidal prism will assist in "flushing" and routing the sediment through the tidal reach.

Thank you for the opportunity to provide comments on the WWDR for the Upper Elk River. If you have any questions or would like further information, please contact Matt Goldsworthy at (707) 825-1621, or via e-mail at Matt.Goldsworthy@noaa.gov.

Sincerely,

Justin Ly
Acting South Coast Branch Chief
Northern California Office

Literature Cited

Humboldt Redwood Company. 2014. Aquatic Trends Monitoring Report. Scotia, CA.

Lewis, J. 2013. Salmon Forever's 2013 Annual Report on Suspended Sediment, Peak Flows, and Trends in Elk River and Freshwater Cree, Humboldt County, California. Submitted to Redwood Community Action Agency. SWRCB Agreement No. 07-508-551-1. June 2013.

Pryor, B. 2015. Presentation at the Elk River Technical Advisory Committee Meeting. December 11, 2015. Eureka, CA.

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Sullivan, K., Manthorne, D., Rossen, Griffith, A. 2012. Trends in sediment quality after a decade of forest management implementing an aquatic habitat conservation plan. Redwood Company, Scotia, CA. 187 pp.

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