



DEPARTMENT OF FORESTRY AND FIRE PROTECTION

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January 26, 2016

Mr. Matthias St. John
Executive Officer
North Coast Regional Water Quality Control Board
5550 Skylane Boulevard, Suite A
Santa Rosa, California 95403

Attention: Ms. Alydda Mangelsdorf
Mr. James Burke

RE: CAL FIRE Comment to NCRWQCB on Draft Order No. R1-2016-0004

Dear Mr. St. John:

Thank you for the opportunity to comment on draft Order No. R1-2016-0004, Waste Discharge Requirements for Nonpoint Source Discharges and Other Controllable Water Quality Factors Related to Timber Harvesting and Associated Activities Conducted by Humboldt Redwood Company, LLC, in the Upper Elk River Watershed.

CAL FIRE strongly supports North Coast Regional Water Quality Control Board (NCRWQCB) enrollment of Timber Harvesting Plan (THP) 1-12-110 HUM (McCloud Shaw, including the 187 acres in Unit 1) in a General Waste Discharge Requirement (GWDR) permit. This THP is located in the Railroad Gulch tributary of the Elk River watershed, but we believe that harvest should be allowed to proceed in a timely manner and not be subject to the specific requirement listed in the draft Order for temporary harvest prohibition in five high risk subwatersheds (I.A.4., i.e., no harvest unless a restoration project is proposed to offset potential impacts), including Railroad Gulch. CAL FIRE has a five year contract in place through December 31, 2019 with Humboldt State University (HSU) to implement the Railroad Gulch Best Management Practices (BMP) Evaluation Project. The purpose of the contract is to support this cooperative project between the Department, Humboldt Redwood Company (HRC), and HSU. Dr. Andrew Stubblefield, HSU, is the principal investigator and the total contract amount is \$126,885.00. We have included a copy of the fully executed contract with this letter.

This study is designed to evaluate the effectiveness of HRC's Habitat Conservation Plan (HCP), the Forest Practice Rules, and Elk River Watershed Analysis-derived prescriptions in minimizing sediment delivery to watercourses in response to timber harvest activities, through the use of both compliance and effectiveness monitoring. CAL FIRE decided to

help fund this project so that State and federal regulatory agencies, and the concerned public, would be better informed regarding the effectiveness of the harvesting practices currently in use by HRC in the Elk River watershed in controlling logging-related erosion.

In order to conduct this project and implement the requirements of the contract, HRC must be able to harvest the timber within the logging unit located in the East Fork of Railroad Gulch as proposed and approved in the THP. To date, considerable background information has been collected for both the control West Fork and treatment East Fork, including annual suspended sediment yields for water years 2014 and 2015. Technical review of the project study plan has shown that the parameters being measured are appropriate to document watershed-related impacts associated with contemporary timber harvesting practices. A multi-agency field trip for viewing the Before-After-Control-Impact (BACI) study, held on December 2, 2015, showed that the project is fully instrumented and proceeding as proposed in the study plan.

Several sections of the draft Order refer to the objective of implementing adaptive management in the Elk River watershed. For example, No. 67 states that one of the goals of the Watershed Stewardship Program is to "promote coordinated monitoring and adaptive management." Item No. 73 states that one of the objectives of the monitoring and reporting requirements of the Order is to "determine the effectiveness of management measures designed to protect water quality and inform adaptive management decisions." CAL FIRE supports the contention that full implementation of the Railroad Gulch BMP Evaluation Project will help all the agencies, including the NCRWQCB, determine if the current HCP and Forest Practice Rule requirements being used in the Elk River watershed by HRC are adequately functioning to protect water quality, or if modified practices, including the items discussed below, are required. This will help fulfill the goals and objectives of the draft Order for evaluation of management measures and allow adaptive management to occur in this basin. Therefore, full implementation of the Railroad Gulch BMP Evaluation Project is consistent with the goals and objectives of the draft Order.

In addition to our objection to the temporary harvest prohibition in the Railroad Gulch subwatershed, we offer the following comments on three other aspects included in the draft Order: (1) expanded riparian buffer requirements, (2) prohibition of timber operations from October 15th through May 1st, and (3) reliance on the "Upper Elk River: Sediment Technical Analysis" (Tetra Tech 2015) to inform the specific requirements of the GWDR.

Regarding expanded riparian buffers, CAL FIRE watershed staff were heavily involved in development of the Anadromous Salmonid Protection (ASP) Forest Practice Rule requirements, including those for adequate watercourse protection zones. This included conducting a detailed review of the scientific literature available on this subject. CAL FIRE staff also participated in the PALCO HCP-SYP development in 1997-1998, including riparian protection zone measures. Current timber operations in HCP riparian management zones (RMZs) must comply with Elk River watershed analysis prescriptions.

As stated in the draft Order, the watershed analysis prescriptions for RMZs include no harvest within 50 feet of Class I and 30 feet for Class II watercourses, and large tree and canopy retention requirements throughout the remainder of the RMZ (150 feet for Class I

watercourses). Silvicultural treatments in RMZs must be used to develop late seral forest conditions, such as thinning from below or single tree selection. As stated in the HRC Report of Waste Discharge (ROWD), additional harvest restrictions can be applied up to 400 feet slope distance from the watercourse, dependent upon watercourse classification and slope condition.

While these requirements are appropriate, the draft Order states that RMZs are to extend up to 300 feet on either side of the channel for a Class I watercourse, 200 feet for a Class II, and 100 feet for a Class III. Since HRC is only using unevenaged management silvicultural systems upslope of the RMZs, it does not appear that this level of riparian protection is necessary for all HRC Elk River plans. For example, many studies support the contention that other riparian processes (e.g., shading, nutrient input) are generally subsumed within the streamside zone for large wood recruitment (e.g., Benda 2008), and that most large wood (90%) is recruited from within 30 m (~100 feet) of channel banks in managed coastal California forests (Benda and Bigelow 2014). Large wood recruitment source distances can be further where the dominant input mechanism is from landslide input (Naiman et al. 2000, Benda and Associates 2004, Benda and Bigelow 2014). The need for additional RMZ protection measures beyond the Forest Practice Rule and HCP standards, including expanded RMZ width in landslide prone terrain and areas with high windthrow potential, can be determined by the RPF and interagency Review Team field participants on a project-by-project basis, as part of THP development and review. Monitoring results for the HCP standards, as well results from the Railroad Gulch BMP Evaluation Project, should be used to modify the current FPR/HCP RMZ standards if they are found to be inappropriate.

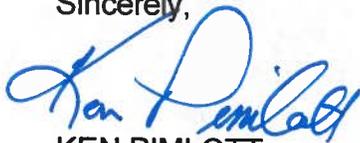
In terms of wet weather restrictions and the draft Order requirement of no timber operations between October 15th and May 1st, CAL FIRE staff also finds this requirement to be overly restrictive. There does not appear to be monitoring data to show that the HCP and FPR requirements mandating the prevention of significant sediment discharges (SSDs) associated with winter harvesting operations are inadequate. HRC's recently submitted ROWD references HCP Section 6.3.3.6, which describes specific enforceable wet weather operational restrictions developed to prevent significant sediment discharges during the winter period. HRC monitoring efforts that CAL FIRE is aware have shown that (1) these measures have been shown to be effective in preventing SSDs (e.g., Sullivan et al. 2011), and (2) log hauling during extended dry periods in the winter period on stormproofed roads using an approved winter operating plan can occur without producing SSDs.

Finally, the conclusions and recommendations of the 2015 "Upper Elk River: Sediment Technical Analysis" (Tetra Tech Report) appear to be the rationale for many of the specific requirements of this GWDR. The Tetra Tech Report's assumptions regarding the loading capacity of the impacted reach drive the GWDR's specific requirements for sediment load reduction on HRC lands. As such, it provides critical technical support for the strategies outlined in the GWDR. CAL FIRE staff intends to provide detailed comments on the Tetra Tech Report, including its linkage to the GWDR, no later than February 15, 2016.

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In conclusion, we reiterate that we strongly urge the NCRWQCB to not impede progress on the multi-year BACI study in progress in the Railroad Gulch subwatershed testing the effectiveness of current practices, and being conducted collaboratively by HSU, HRC, and CAL FIRE. This project will provide for adaptive management, a key objective in the draft Order, and help determine if more restrictive management practices are necessary in the Elk River watershed. Thank you for the opportunity to comment on draft Order No. R1-2016-0004. If you have any questions or comments regarding this letter, please do not hesitate to contact Pete Cafferata (916-653-9455, pete.cafferata@fire.ca.gov) or Drew Coe (530-224-3274, drew.coe@fire.ca.gov).

Sincerely,



KEN PIMLOTT
Director

cc: Helge Eng
Dennis Hall

References

Benda, L. 2008. Riparian zones of influence and implications for riparian management in California. Unpublished report submitted to the California Department of Forestry and Fire Protection as part of Agreement No. 8CA07013/8CA00035. Sacramento, CA. 42 p.

Benda and Associates. 2004. Little North Fork Noyo River wood budget, Mendocino County, California. Unpubl. Final Report prepared for Campbell Timberland Management, Fort Bragg, CA. Lee Benda and Associates, Inc., Mt. Shasta, CA. 45 p.

Benda, L. and P. Bigelow. 2014. On the patterns and processes of wood in northern California streams. *Geomorphology* 209: 79-97.

Naiman, R.J., R.E. Bilby, and P.A. Bisson. 2000. Riparian ecology and management in the Pacific Coastal rain forest. *BioScience* 50(11): 996-1011.

Sullivan, K., A.S. Dhakal, M.J. Kunz, M. Medlin, A. Griffith, R. Rossen, and K. Williams. 2011. Sediment production from forest roads on Humboldt Redwood Company lands: study of erosion rates and potential delivery to streams. Technical Report. Humboldt Redwood Company. Scotia, CA. 108 p.

Tetra Tech, 2015. Upper Elk River: Technical Analysis for Sediment. Report prepared by Tetra Tech, Inc. for the Environmental Protection Agency (Region 9) and the North Coast Regional Water Quality Control Board. Fairfax, VA. 85 p.