



California Regional Water Quality Control Board Central Valley Region

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CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD COMMENTS ON KEY QUESTIONS FOR AGENCIES (GROUP #2 – GEOGRAPHIC SCOPE AND PLAN CONTENT)

Thank you for the opportunity to provide comments on the Group #2 Key Questions for the Forest Practice Committee's (FPC) review of the California Forest Practice Rules related to protection of watersheds with anadromous salmonid species (i.e., T/I Rules). In the Central Valley Region, threatened salmonids utilize habitats in 5 distinct geomorphic provinces: (1) the eastern Coast Range; (2) the Klamath Mountains; (3) the Cascade Range; (4) the Sierra Nevada; and (5) the Great Valley (CGS, 2002). The sediment, water, and wood regimes vary between and within these provinces, and are remarkably different from the westside of the Coast Range. This regional and sub-regional variability will require special consideration during the T/I rule revision process. We ask that you formulate a rule package that protects and maintains the relevant habitat-forming processes that operate within our watersheds.

Please consider our comments for the following questions.

Key Question #52: The Scientific Review Panel report that provided the basis for this rule package emphasized its applicability only in coastal areas, yet the rules are applied to inland regions as well. Are the T/I rules appropriate for all geographic locations where listed species are found? Should rules be specific for inland regions of the state?

Comments: California has tremendously diverse climate, geology, physiography, vegetation, and disturbance regimes. Habitat-forming processes important to salmonids are influenced by these variables, resulting in a strong regional character to habitat characteristics (Montgomery, 1999; Montgomery and Bolton, 2003). Salmonids are adapted to spatially and temporally variable habitats, and this variability may be important to their long-term persistence (Reeves et al., 1995; Beechie and Bolton, 1999). A single set of regulatory rules is inappropriate because it tends to limit and control natural variability, resulting in unintended ecological consequences (Montgomery and Bolton, 2003).

Ideally, a new set of rules should focus on protecting and restoring the habitat-forming processes relevant to salmonids and other aquatic species at the regional and sub-regional scale (i.e., watershed) (Reeves et al., 1995; Beechie and Bolton, 1999; Montgomery and Bolton, 2003). Regional or watershed specific restoration approaches can be crafted by: (1) estimating the natural rates of habitat-forming processes (e.g., water, sediment, temperature,



and wood regimes); (2) evaluating the changes in the rates of habitat-forming processes due to timber harvest activities; and (3) identifying the appropriate protection/restoration measure or rules that can restore the habitat-forming process (Beechie and Bolton, 1999). This requires analysis of habitat-forming processes at the watershed scale to identify which processes are disrupted as well as locations and timing of timber harvest effects on those processes (Beechie and Bolton, 1999). This approach also requires a high degree of technical understanding from land managers, regulators, and policy makers, but may offer the greatest potential for restoration success.

Key Question #54: Does the “watersheds with threatened or impaired values” definition reflect geographic scope consistent with your agency’s laws and policies?

Comment: The Water Quality Control Plan for the Central Valley Region (Basin Plan) recognizes surface water bodies based on hydrologic basin. “Planning watersheds”, as defined in the Forest Practice Rules, are primarily based on area (i.e., <10,000 acres), with secondary consideration to the hydrologic basin. T/I watersheds are “planning watersheds” that contain anadromous salmonids that are listed as threatened, endangered, or candidate under State or Federal Endangered Species Act, or can be restored through the removal of manmade barriers. T/I watersheds do not include “planning watersheds” wholly outside the anadromous zone that drain to T/I watersheds (Figure 1).

As noted in previous comments, the cold freshwater habitats (i.e., a beneficial use identified in the Basin Plan) occupied by listed anadromous salmonids (i.e., another beneficial use identified in the Basin Plan) are a complex integration of all upslope and upstream constituents, energy, and processes. Timber harvest activities have well noted interactions with a variety of hydrologic, geomorphic, and ecological processes, and can adversely affect the magnitude and timing of a variety of watershed constituents – especially sediment (JAWRA, 2005; Forest Science, 2007). This indicates that the geographic scope of the T/I watershed definition is not consistent with the protection and enhancement of beneficial uses identified in the Central Valley Region Basin Plan.

Key Question #55: Currently, the “threatened” component of the T/I rules is only applied if a portion of a planning watershed contains threatened, endangered, or candidate species under the Endangered Species Act, or can be restored to the point that these species can access the watershed (i.e., removing artificial barriers). As a result, “non-restorable” planning watersheds within the same drainage basins, but wholly outside the anadromous zone do not receive any T/I rule protection. Should some aspects of the T/I rules be applied to upstream planning watersheds that are completely outside the anadromous zone because watercourses “integrate watershed processes and translate natural and anthropogenic disturbances downslope through the landscape” (Buffington et al., 2003), and successful restoration requires that watershed processes and linkages be considered.

Comments: See comments for key question #54. By following steps 1 and 2 (see comments for key question #52) the appropriate protection measures can be applied at the appropriate scale (i.e., the watershed scale).

Key Question #57: To be responsive to the potential for cumulative effects, the spatial scale of applicability of the T/I rules must expand beyond a T/I watershed area to consider T/I rules



in those “non-T/I” watersheds that flow into a “T/I” watershed. What is the science, legal, or policy basis for this?

Comments: To minimize the potential for cumulative effects, the implementation of the new/revised T/I rules should be defined by the spatial scale of the processes that control salmonid habitat and/or water quality (MacDonald, 2000). Hydrologic basins, as opposed to administrative watersheds, set the spatial boundaries in which these processes operate (Montgomery and Bolton, 2003). Expanding protection measures above the limit of anadromy is especially important for sediment, as watershed wide anthropogenic increases in sediment supply can adversely impact salmon habitat in downstream areas (Cover et al., 2008).

Key Question #58: Specific inadequacies in plan preparation/THP approval process have been identified in the Federal Register as part of a federal ESA species listing procedure. These include dependence upon RPFs that may not possess the necessary level of multidisciplinary technical expertise to develop THPs protective of salmonids. Does this situation still exist and what are the science or other technical information supporting the statements?

Comments: These deficiencies were noted by the University of California Committee on Cumulative Watershed Effects’ report (Dunne et al., 2001) and will continue to be an issue until policy makers decide to place a higher priority on achieving desirable outcomes (i.e., healthy salmon populations; clean water) rather than on administrative process or rulemaking. While some RPFs do not possess the technical understanding to mitigate THPs effectively for anadromous salmonids, the THP process and Forest Practice Rules do not encourage a high level of technical expertise regarding forestry-fish interactions. Adopting a scientifically-based rule package and a formal adaptive management program will help to correct some of these deficiencies, as it will compel RPFs and/or landowners to adapt their practices to achieve desired outcomes.

Key Question #59: Specific inadequacies in plan preparation/THP approval process have been identified in the Federal Register as part of a federal ESA species listing procedure. These include dependence by CDF on other State agencies to review and comment on THPs. Does this situation still exist and what are the science or other technical information supporting the statements?

Comments: This situation still exists but the Central Valley Regional Water Quality Control Board (CVRWQCB) considers its Review Team responsibilities as essential for CEQA compliance. Interagency collaboration is critical for the THP review process, since environmental review involves assessing numerous variables and evaluating physical-biological process interactions across space and time (Benda et al., 2002). While interagency collaboration sometimes results in conflict between the review agencies, the net result is typically positive.

Key Question #60: Specific inadequacies in plan preparation/THP approval process have been identified in the Federal Register as part of a federal ESA species listing procedure. These include failure by CDF to incorporate recommendations from other agencies, inadequate enforcement due to staff limitations, and inadequate Timber Harvest Plan



preparation, review, implementation, and validity. Does this situation still exist and what is the science or other technical information supporting the statements?

Comments: CVWQCB's recommendations are accepted by CALFIRE if supported by sound technical reasoning. However, there can be considerable variability between CALFIRE inspectors in how the Forest Practice Rules are implemented and enforced – just as there can be within other State agencies. This intra and interagency variability can be constrained through collaborative training - something that CALFIRE is attempting to address through programs such as the Interagency Mitigation Monitoring Program (IMMP). While CALFIRE has made progress in prioritizing enforcement of the Forest Practice Rules, there still needs to be a commitment to long-term monitoring to ensure that resource objectives (rather than just rule compliance) are being met.

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