

Attachment 2
DFG and CAL FIRE Comments and Recommended Changes
Anadromous Salmonid Protection Rules, 2009

Comments on Changes to 14 CCR § 895. Abbreviations Applicable Throughout Chapter.

Comment A1.

The Departments support elimination of Optional Amendment 1 for the abbreviation “ACD” as proposed in the Board’s “Modifications to Text of Proposed Regulation and Public Hearing Date” published July 24, 2009 (Re-notice) and recommended in the Departments’ June 18, 2009 letter, Comment 2.

Comment A2.

The Departments support the typographical corrections to the abbreviation WTL for watercourse transition line as proposed in the Re-notice and recommended in the Departments’ June 18, 2009 letter, Comment 1.

Comments on Changes to 14 CCR § 895.1. Definitions.

Comment A3. Angular Canopy Density

The Departments support the elimination of Optional Amendment 2 as proposed in the Re-notice and recommended in the Departments’ June 18, 2009 letter, Comment 3.

Comment A4. Channel Migration Zone

The Departments support the revisions to the definition and Figure 1 as proposed in the Re-notice and recommended in the Departments’ June 18, 2009 letter, Comment 4.

Comment A5. Flood Flow

The Departments support the revisions to the definition as proposed in the Re-notice and recommended in the Departments’ June 18, 2009 letter, Comment 7.

Comment A6. Flood Prone Area

The Departments support the revisions to the definition as proposed in the Re-notice and recommended in the Departments’ June 18, 2009 letter, Comment 8.

Comment A7. Fluvial, Hydric and Hydrologic Disconnection

The Departments support the addition of these three definitions as proposed in the Re-notice and recommended in the Departments’ June 18, 2009 letter, Comments 9, 10, 11.

Comment A8. Lake Transition Line

The Departments support the revision to the definition as proposed in the Re-notice and recommended in the Departments’ June 18, 2009 letter, Comment 12.

Comment A9. Pre-existing Large Wood

The Departments support the addition of this definition as proposed in the Re-notice and recommended in the Departments' June 18, 2009 letter, Comment 13.

Comment A10. Properly Functioning Salmonid Habitat

The Departments support the revision to this definition as proposed in the Re-notice and recommended in the Departments' June 18, 2009 letter, Comment 14.

Comment A11. Riparian Associated Species

The Departments support the revision to this definition as proposed in the Re-notice and recommended in the Departments' June 18, 2009 letter, Comment 15.

Comment A12. Saturated Soil Conditions

The Departments support the revision to this definition as proposed in the Re-notice and recommended in the Departments' June 18, 2009 letter, Comment 16.

Comment A13. Stable operating surface

The Departments support elimination of Optional Amendment 3 as proposed in the Re-notice and recommended in the Departments' June 18, 2009 letter, Comment 17.

Comment A14. Stressing Storm

The Departments support elimination of this definition as proposed in the Re-notice and recommended in the Departments' June 18, 2009 letter, Comment 19.

Comment A15. Thalweg Riffle Crest

The Departments support the addition of this definition as proposed in the Re-notice and recommended in the Departments' June 18, 2009 letter, Comment 20.

Comment A16. Watercourse Transition Line

The Departments support the revision to this definition as proposed in the Re-notice and recommended in the Departments' June 18, 2009 letter, Comment 21.

Comment A17. Watersheds in the Coho salmon ESU

The Departments support the revision to this definition as proposed in the Re-notice and recommended in the Departments' June 18, 2009 letter, Comment 23.

Comment A18. Winter Period

The Departments support deleting the proposed revision to this definition as proposed in the Re-notice and recommended in the Departments' June 18, 2009 letter, Comment 25.

Comments on Changes to 14 CCR § 898. Feasibility Alternatives

Comment B. 14 CCR § 898

The Departments support restoring this language as proposed in the Re-notice and recommended in the Departments' June 18, 2009 letter, Comment 27.

Comments on Changes to 14 CCR § 916 [936 and 956]. Intent of Watercourse and Lake Protection

Comment C. 14 CCR § 916 [936 and 956]

The Departments support the revisions to this subsection as proposed in the Re-notice and as recommended in the Departments' June 18, 2009 letter, Comments 30-39.

Comments on Changes to 14 CCR §§ 916.2, 936.2 and 956.2. Protection of beneficial uses of water and riparian functions

Comment D. 14 CCR §§ 916.2, 936.2 and 956.2

The Departments support the revisions to this subsection as proposed in the Re-notice and as recommended in the Departments' June 18, 2009 letter, Comment 40-43.

Comments on Changes to 14 CCR § 916.9 [936.9 and 956.9]. Protection and restoration of the beneficial functions of the riparian zone in watersheds with listed anadromous salmonids.

Comment E1. 14 CCR § 916.9 [936.9, 956.9] Geographic Scope

The Departments support the revisions to this subsection as proposed in the Re-notice and as recommended in the Departments' June 18, 2009 letter, Comment 45.

Comment E2. 14 CCR § 916.9 [936.9, 956.9], subsection (a) Goals

The Departments support the revisions to this subsection as proposed in the Re-notice and as recommended in the Departments' June 18, 2009 letter, Comment 46.

Comment E3. 14 CCR § 916.9 [936.9, 956.9], subsection (b) Pre-plan adverse cumulative watershed effects

The Departments support the revisions to this subsection as proposed in the Re-notice and as recommended in the Departments' June 18, 2009 letter, Comment 47.

Comment E4. 14 CCR § 916.9 [936.9, 956.9], subsection (c)(2) Inner Zone

The Departments support the revisions to this subsection as proposed in the Re-notice and as recommended in the Departments' June 18, 2009 letter, Comment 50.

Comment E5. 14 CCR § 916.9 [936.9, 956.9], subsection (c)(3) Outer Zone
The Departments support the revisions to this subsection as proposed in the Re-notice and as recommended in the Departments' June 18, 2009 letter, Comment 51.

Comment E6. 14 CCR § 916.9 [936.9, 956.9], subsection (c)(4) Class II-Large
The Departments support the revisions to this subsection as proposed in the Re-notice and as recommended in the Departments' June 18, 2009 letter, Comments 52 and 53.

Comment E7. 14 CCR § 916.9 [936.9, 956.9], subsection (c)(5) WLPZs in high or very high fire hazard severity zones
The Departments support moving this section to 14 CCR § 916.9 [936.9, 956.9] subsection (v) as proposed in the Re-notice and as recommended in the Departments' June 18, 2009 letter, Comment 54.

Comment E8. 14 CCR § 916.9 [936.9, 956.9], subsection (c)(6)
The Departments support the revisions to this subsection as proposed in the Re-notice and as recommended in the Departments' June 18, 2009 letter, Comment 55.

Comments on Changes to 14 CCR §§ 916.9 [936.9 and 956.9], subsection (e). Channel Zone Requirements

Comment F1. 14 CCR §§ 916.9 [936.9 and 956.9], subsection (e)(1)(A) – (F). Channel Zone Requirements
The Departments support the revisions to these subsections as proposed in the Re-notice and as recommended in the Departments' June 18, 2009 letter, Comments 56 and 57. Note that the word "concurrance" is misspelled on line 20, page 29; the proper spelling is "concurrence".

Comment F2. 14 CCR § 916.9 [936.9 and 956.9], subsection (e)(2).
The Departments support the revisions to this subsection as proposed in the Re-notice and as recommended in the Departments' June 18, 2009 letter, Comment 58.

Comments on Changes to 14 CCR §§ 916.9 [936.9 and 956.9], subsection (f). Class I Watercourses

Comment G1. 14 CCR § 916.9 [936.9, 956.9], subsection (f) - Class I watercourses
The Departments support measures that address confined channels and flood prone areas and channel migration zones. The existing rules do not vary based on channel morphology nor do they include flood prone area or channel migration zone protections. This represents a site-specific approach to forest

management based on the unique characteristics of channel form and associated salmonid habitat features.

In order to provide a clear and concise summary of the protection measures applicable to Class I watercourses, the Board has included three tables under subsection (f). The Departments support adoption of the three tables, but observe that some revisions should be made to each table as a result of some typographical errors that occurred in the construction of the tables. The first revisions apply to all three tables. The Board should note that a reference to "916.9(e) A-F" is made eight times in the first two rows of all three tables. This reference must read "916.9(e)(1) A-F" to be correct. Note that 24 entries would need to be revised to correct this error. Additional minor changes specific to each table are addressed below in comments specific to the appropriate subsection.

The Departments support revisions to subsection (f)(1) on page 30, line 14-16 as proposed in the Re-notice and recommended in the Departments' June 18, 2009 letter in Comment 60.

Summary:

- **Support - 14 CCR § 916.9 [936.9, 956.9], subsections (f)(2)(A) – (E) Class I watercourses with confined channels in watersheds in the coastal anadromy zone**
- **Oppose - Optional Amendments 9, 100**

Comment G2. 14 CCR § 916.9 [936.9, 956.9], subsections (f)(2)(A)-(E)
The Departments support the elimination of Optional Amendments 4, 5, 6, 7, and 8 as reflected in the current July 24th plead, and oppose proposed Optional Amendments 9 and 100 for Class I watercourses with confined channels in watersheds in the coastal anadromy zone 14 CCR § 916.9 [936.9, 956.9], subsections (f)(2)(A)-(E). This generally encompasses the Central, North Coast, and Klamath regions and tributaries that support federally threatened steelhead, federally and state endangered coho salmon, and federally threatened Chinook salmon.

The Departments support replacing the term 'coho salmon ESU' with 'Coastal Anadromy Zone' in subsections (f)(2), (3), and (5); the addition of Table 1 and new Figure 4 in subsection (f)(2); the non-substantive corrections to code citations related to channel zone exceptions in subsection (f)(2)(A)-(C); the non-substantive language correction from 'timber harvesting' to 'timber operations' in subsection (f)(2)(C); and the revision in (f)(2)(D) changing the term 'best management practices' to 'preferred management practices' as proposed in the Re-notice. See the Departments' June 18, 2009 letter, comments 64 and 65.

The Board should note that in Table 1, Column 2 (Overstory Canopy Cover), Row 4 (Outer Zone); the reference to "916.9(f)(2)(C)" would be more accurate if it read "916.9(f)(2)(C) 1."

Comment G3 [66]. 14 CCR § 916.9 [936.9, 956.9], subsection (f)(2)(B) 1. – 5. – Inner Zone

For the inner zone, the Departments support the 80% overstory canopy requirement in the coastal anadromy zone and 70% overstory canopy requirement in the Northern Forest District. These values are surrogates for "a well stocked stand" for wood recruitment and shading for the Coast and are needed for the interior, since the hotter, drier climate requires a sufficiently dense, complete canopy cover. The Departments oppose Optional Amendment 100 that would reduce this to 75% and 65%, respectively.

The Departments support revising subsection (f)(2)(B)1. to require increasing quadratic mean diameter (QMD) only when commercial thinning is used so this subsection is consistent with requirements of selection silviculture and so that landowners using this silvicultural system can be in compliance with this subsection while still meeting the goals of 14 CCR § 916.9 [936.9, 956.9]. Increasing QMD is specified for thinning from below (undefined in the California Forest Practice Rules (FPRs)), a form of commercial thinning that may be used in the inner zone. The Departments also support the proposed revisions to the hardwood species retention requirement in subsection (f)(2)(B)3 as recommended in the Departments' June 18, 2009 letter, Comments 66 -68.

The Departments support: (1) elimination of Optional Amendments 4 and 5, amending the initial proposal from 80% to 70% overstory canopy for the Northern Forest Practice District of the coastal anadromy zone; (2) the revision to subsection (f)(2)(B)4 that clarifies the area over which the 13 largest conifers are to be retained; and (3) the elimination of Optional Amendment 6 (as previously recommended in the Departments' June 18, 2009 letter in Comment 67).

The Departments support the proposed revisions to subsection (f)(2)(B)5 that clarifies the application of this subsection and its requirements as recommended in the Departments' June 18, 2009 letter in Comment 68. The Departments support the deletion of Optional Amendment 7 regarding angular canopy density as recommended in the Departments' June 18, 2009 letter in Comment 68.

The Departments support the deletion of Optional Amendment 8 regarding basal area; this item was discussed in the Departments' June 18, 2009 letter in Comment 68.

The Departments believe that landowners will be provided the best incentive to participate in pilot projects for site-specific analyses and to use site-specific approaches in the future in conjunction with Forest Practice Rules that conserve salmonid habitat on managed timberlands. The Departments believe that the

joint recommendations for watercourse protection measures are at the appropriate level to encourage use of subsection (v). A conservative standard reduces the risk of habitat loss and provides a predictable level of protection. A conservative standard also encourages landowners to assess those particular areas of their watersheds and property where different prescriptive measures may be applied without incurring higher risk of damaging salmonid habitat. Conversely, less conservative protective measures may be appropriate in some locations and not in others. The Departments believe applying less stringent protection measures across all watersheds with listed salmonids will result in few site-specific or watershed assessments to validate the adequacy of standard protections embodied in the rules. However, if a higher standard of protection is required with approval of less stringent site-specific approaches where justified, the public and agencies will have a much higher degree of confidence level that adequate protection will be afforded for salmonids.

The Departments oppose Optional Amendment 100 which would reduce post harvest canopy requirements for Class I watercourses with confined channels in watersheds in the coastal anadromy zone. Class I protection measures in Optional Amendment 100 are inferior for all anadromous salmonids. As stated in the Board's Re-notice, "[t]he reduction in tree retention would diminish the rule's effectiveness to meet the objectives of the inner zone, which are to develop a pool of trees for large wood recruitment, to provide additional shading, to develop vertical structural diversity, and to provide a variety of species (including hardwoods) for nutrient input. A decrease in the overstory canopy retention standard would also reduce the inner zone's effectiveness to filter sediment in close proximity to habitat for listed fish and other species" (BOF 2009b).

The T/I rules associated with logging road management in the coastal anadromy zone have not yet been reviewed and revised. Proposed revisions to watercourse and lake protection (WLPZ) management in the coastal anadromy zone include reducing Class I WLPZ width by 50 feet (33%) adjacent to confined channels when evenaged silviculture is not utilized contiguous to the WLPZ. The combination of reduced WLPZ width and lack of revision to road management rules will allow truck and tractor road construction and use within 100 feet of listed salmonid habitat. Under existing rules, new roads would be at least 150 feet away from the watercourse. This WLPZ reduction may compromise the effectiveness of WLPZ sediment filtering capabilities. The Departments are concerned that new or reconstructed roads will occur within 100 feet of the WTL under the proposed WLPZ width. Partly due to this concern, the Departments do not support reduced post harvest canopy requirements proposed in Optional Amendment 100.

Additionally, reducing canopy requirements would diminish the effectiveness of the Inner Zone to promote LWD recruitment, provide shade, develop vertical structural diversity, and provide variation of tree species for nutrient input. The science justifying the importance of these functions is well established. The

Board's Re-notice document states the lower overstory canopy retention requirements proposed in Optional Amendment 100 "have not been demonstrated to provide for properly functioning habitat needs." The Departments conclude adoption of Optional Amendment 100 would not be consistent with meeting the goals and objectives of 14 CCR § 916.9 [936.9, 956.9].

Comment G4 [69]. 14 CCR § 916.9 [936.9, 956.9], subsection (f)(2)(C) 1 – 2 Outer Zone

The Departments support the proposed outer zone in order to promote the goals and objectives of this section for properly functioning habitat conditions for anadromous salmonids. See also Comment 69 in the Departments' June 18, 2009 letter. These requirements would provide windthrow protection, add to riparian function and wildlife habitat, and provide opportunities for heavy equipment operations in the WLPZ with guidelines for minimizing impacts. Compared to the existing T/I rules, the proposed rule change results in less overstory canopy in the area of the WLPZ located 100 -150 feet from the WTL and limits application of this outer 50 feet to only when the WLPZ is adjacent to even-aged silviculture. However, the proposed more limited application of the outer zone, along with the proposed enhanced protections within the core and inner zones, provides the appropriate combination of protections to ensure key watershed products from the riparian zone for salmonid habitat.

The Departments oppose Optional Amendment 9 because it further limits implementation of outer zone protective measures, which reduces the value and effectiveness of the proposed core and inner zone protective measures. If Optional Amendment 9 was adopted, no outer zone protection measures would be provided unless "(i) significant windthrow is a demonstrated common occurrence, (ii) there is a need to provide additional wood recruitment to the watercourse, or (iii) tractor logging is proposed on slopes greater than 50% in areas contiguous to [the] watercourse and lake protection zone."

The literature describes buffer widths very similar to the proposed T/I rule WLPZ buffer width of 150 feet. Most (approximately 75 to 90%) of large wood recruitment comes from approximately $\frac{3}{4}$ of one site potential tree height, on average (McDade et al. 1990, Reid and Hilton 1998, WDNR 2005). For coast redwood, a site potential tree height is approximately 200 ft (MRC draft HCP/NCCP and Spence et al. 1996), so there is an accepted approach to establish a riparian buffer of 150 ft width in the California Coast Range (i.e., $\frac{3}{4}$ x 200 ft). The Washington Department of Natural Resources (WDNR) (2005) bases their riparian buffers approved pursuant to section 4(d) of the Federal Endangered Species Act on 100-year site indices for Douglas-fir and ponderosa pine by site class, using the rationale that these numbers are approximately equal to $\frac{3}{4}$ site potential tree height (McArdle et al. 1961, Meyer 1961). They state that these tree heights are expected to generate approximately 90% of wood recruitment potential. For California site indices with coast redwood trees,

site class I is approximately 192 ft, site class II is 167 ft, site class III is 142, and site class IV is 117 ft (Lindquist and Palley 1963, CA FPR 1060—Site Classification). The average for all four site classes is 155 ft. For Douglas-fir, the average for all four site classes is approximately 160 ft. Both these numbers are very similar to the proposed buffer width of 150 ft. Therefore, establishing a WLPZ width of 150 ft (using an average across site classes) is largely consistent with the approach that Washington (WDNR) used to base their riparian management zone (RMZ) widths (i.e., 100-yr site indices), although Washington differentiates RMZ width on site class and we do not propose to do that in this state. This information demonstrates there is an established basis for designating WLPZ or RMZ widths based on $\frac{3}{4}$ of a site potential tree height and/or 100-year site index data for large wood recruitment. In addition, buffer widths of approximately $\frac{3}{4}$ site potential tree height provide full protection of stream shading, litter inputs, and nutrient regulation (Spence et al. 1996).

Determining whether windthrow is significant or common, as proposed in Optional Amendment 9, would be problematic during project review due to the highly subjective nature of these terms. In spite of past modeling and monitoring work on buffer windthrow (Steinblums et al. 1984, Rollerson et al. 2009), it is unrealistic to expect that RPFs and the Review Team agencies can consistently and accurately predict where windthrow will be a demonstrated hazard in the coastal mountains of the CAZ. Kelsey and West (1998) state that it is difficult at present to determine precisely where buffer strips are more likely to fail due to blowdown. Adoption of Optional Amendment 9 would lengthen the review process and increase uncertainty.

In addition, there is evidence from other states that if optional wind buffers are to be applied for selected high risk areas, they should be in addition to a buffer width of approximately a site potential tree height at 100 yrs (e.g., 150 feet). For example; in Washington, Bigley and Deisenhofer (2006) state that windthrow risk is difficult to assess because the factors affecting it are very diverse. In spite of this conclusion, they state that wind buffers are to be applied in areas of moderate and high windthrow potential for WDNR managed lands. They apply a buffer width of a site potential tree height at 100 yrs (average 145 ft; or 215 ft maximum, 100 ft minimum), and in addition a wind buffer of an additional 100 ft for type 1 and 2 waters (50 ft for type 3 waters). If this rationale was applied to the California T/I rules, Class I buffers would be 150 ft plus an additional 50 to 100 ft, for a total of 200 to 250 feet—not 100 ft.

It is well documented that LWD provides many important functions necessary for properly functioning salmonid habitat. Although LWD may exist in the channel for extended periods, its location in the channel may be dynamic, and its durability is finite. In order to maintain properly functioning conditions, recruitable trees must be retained now, so LWD can be provided in the future. In addition, this optional amendment places the burden of analysis on reviewing agencies to determine where conditions require recruitment of additional large woody debris.

Current and foreseeable staffing levels are not likely to allow timely field review of all harvest plans in areas with listed anadromous salmonids. This means that plan review would be protracted as reviewing agencies evaluate areas to determine on a site-by-site basis where additional LWD is needed. The proposed amendment providing for 50 percent overstory canopy provides for the additional margin of LWD recruitment and provides for economic management of timber in the outer zone of the WLPZ. Adoption of Optional Amendment 9 would not, therefore, be consistent with meeting the goals and objectives of this section.

Trees in the outer zone can have a high probability of recruitment and hence affect stream function. Streambank mass wasting is prevalent in the Coast Range of northwest California and in the Southern Subdistrict of the Coast Forest District (SSD) and can be a major large wood input mechanism, as documented by Benda for the Van Duzen River basin (Benda et al. 2002). Benda (2008) shows that wood recruitment in the California coastal zone can extend 150 ft or more due to mass wasting. Specifically for the Van Duzen River basin, Benda (2003) reported that in landslide areas, 90% of wood can originate from 200 feet, while in non-landslide areas, 90% of wood originates from 45 feet. Clearly this data illustrates the value of a site-specific, data rich approach (Benda et al. 2009), but where and when this is not used, a moderately conservative approach is appropriate to conserve the listed fish species.

Benda (2003) also asserts that in landslide areas, sources of large wood can be a considerable distance from the channel, but protection of those areas should be covered by slope stability regulations. Similarly, Martin (2009) states that retention of large trees in landslide prone areas that overlap the outer zone is governed by unstable slope rules. However, we do not have complete ability to predict where streambank mass wasting and debris slides will occur. In most instances, forest practice rules and site-specific recommendations for inner gorge, headwall swales, and unstable areas in the coastal mountains will address this issue, but special silvicultural prescriptions will not address potential large wood recruitment in all instances (T. Spittler, CGS, Santa Rosa, personal communication).

Optional Amendment 9 also proposes to eliminate the Outer Zone (i.e., reduce the WLPZ width by 50 feet) unless tractor yarding is proposed on slopes > 50% contiguous to the WLPZ. The Departments believe that even operations on slopes less than 50% may result in sediment impacts to salmonid habitat, and therefore this amendment provides too little protection. As stated previously, proposed revisions to WLPZ management include reducing Class I WLPZ width by 50 feet (33%) when evenaged silviculture is not utilized contiguous to the WLPZ. The rules associated with road management in areas potentially affected by the proposed option have not yet been updated or finalized. The combination of reduced WLPZ width and lack of revision to road management rules will allow truck and tractor road construction and use within 100 feet of listed salmonid habitat. This obvious reduction in effectiveness of WLPZ sediment filtering

capabilities cannot be further compromised.

While cable yarding is a desirable practice and reduces hillslope erosion on steeper slopes (Rice and Datzman 1981), little evidence was found in the literature supporting the concept of reducing the riparian buffer width based on yarding system. Goals for outer zone (i.e., additional wood recruitment, wildlife habitat, microclimate protection, buffering to prevent windthrow) would not be met with removal of overstory trees using a reduced zone width.

There is justification for requiring an outer zone for microclimate control, for reasons other than water temperature control. As stated in the Mendocino Redwoods Company (MRC) draft HCP/NCCP (2009), amphibians require high levels of relative humidity and reduced wind velocity to prevent dehydration and have proper respiratory functions. MRC (2009) states that forest management upslope from streams will influence microclimate. Their draft HCP/NCCP states that the use of an outer band to buffer the inner and middle bands should minimize microclimate impacts. Pyles et al. (2002) suggest retaining 50% overstory canopy in the outer 100 -150 ft band of a Class I coast riparian management zone for amphibian habitat and to enhance the water temperature control provided by the inner band.

Existing rule language (ref. 14 CCR § 897(b)(1)(c)), as well as the scientific literature, confirm the necessity of the riparian zone for terrestrial wildlife. Kelsey and West (1998) state that buffer strips along small forested streams protect instream habitat for salmonids and provide wildlife habitat. Kelsey and West (1998) list the functions of buffer strips as: (1) shade, (2) bank stability, (3) reducing runoff of chemical pollutants, (4) providing barriers to logging debris, (5) providing input of wood and other terrestrial organic matter, (6) providing habitat components for aquatic life, and (7) providing habitat for wildlife. They add that strategies to provide wildlife habitat must include both riparian and upland forests due to the fluidity of habitat use between the two areas. Consideration of provision of an outer zone as proposed by the Departments should not be limited to the needs of only listed anadromous fish.

Comment G5. 14 CCR § 916.9 [936.9, 956.9], subsection (f)(2)(E) Additional Special Operating Zone

The Departments support the proposed amendment and the revisions to this subsection requiring a special operating zone when the outer zone is contiguous to even-aged management, slopes are greater than 50%, and the outer zone is located on any north aspect, as recommended in the Departments' June 18, 2009 letter in Comment 71.

Summary:

- **Support - 916.9(f)(3)(A) – (F)**
- **Oppose - Optional Amendment 9**

**Comment G6 [72]. 14 CCR § 916.9 [936.9, 956.9], subsection (f)(3)(A) - (E)
Channel Migration, Core, Inner A & B Zones**

The Departments support eliminating Optional Amendments 4, 5, 6, 7, and 8 for Class I WLPZs with flood prone areas or channel migration zones 14 CCR § 916.9 [936.9, 956.9], subsections (f)(3)(A)-(E). See Comment G3 regarding overstory canopy closure for the coastal anadromy zone and all other listed watersheds in this letter and the Departments' June 18, 2009 letter in Comments 72 and 73.

The Departments support the addition of Table 2 and new Figure 5 in subsection (f)(3); the non-substantive corrections to code citations related to channel zone exceptions in subsection (f)(3)(A)-(E); the revision to subsection (f)(3)(D) deleting the word 'typically'; and the revision in (f)(3)(E) changing the term 'best management practices' to 'preferred management practices' as proposed in the Re-notice.

The Departments identified two minor corrections to Table 2 for the Board's consideration. In Table 2, on Row 3 (Inner Zone A); there are three entries of "916.9(f)(3)(B)3." These need to be corrected to read "916.9(f)(3)(C)3." Furthermore, in Table 2, under Column 3 (Large Tree Retention), Row 4 (Inner Zone B); the reference to "916.9(f)(3)(B)4." needs to be corrected to read "916.9(f)(3)(D)1."

The Departments also support revisions proposed to subsections (f)(3)(C) regarding eliminating Optional Amendments 4 and 5; (f)(3)(C)4 regarding large conifer tree retention and elimination of Optional Amendment 6; (f)(3)(C)5 regarding large tree recruitment; (f)(3)(C)6 regarding elimination of Optional Amendment 7; (f)(3)(C)7 regarding elimination of Optional Amendment 8 as detailed in the Re-notice. See also Comment G3 in this letter.

**Comment G7 [74]. 14 CCR § 916.9 [936.9, 956.9], subsection (f)(3)(F)1-2
Outer Zone**

The Departments support the proposed Outer Zone and oppose Optional Amendment 9. Also see Comment G4 in this letter.

**Comment G8. 14 CCR § 916.9 [936.9, 956.9], subsection (f)(4) (July 24th
plead, page 52) Site-specific Flood Prone Area Plans**

The Departments support the relocation of this subsection to subsection (v) for site-specific analyses. See also Comment P6 in this letter.

Summary:

➤ **Support** - 14 CCR § 916.9 [936.9, 956.9], subsection (f)(5)(A)-(E) Class I watercourses with confined channels in watersheds outside the coastal anadromy zone

➤ **Oppose** - Optional Amendment 101

Comment G9 [76]. 14 CCR § 916.9 [936.9, 956.9], subsections (f)(5)(A)-(E)
The Departments support eliminating Optional Amendments 4, 6, 7, and 8 and eliminating Special Operating Zone subsection (f)(5)(E) for Class I WLPZs with confined channels outside watersheds in the coastal anadromy zone, 14 CCR § 916.9 [936.9, 956.9], subsections (f)(5)(A)-(E). This generally encompasses the Sacramento River and tributaries that support federally threatened Central Valley steelhead and State threatened spring-run Chinook salmon.

The Departments support the addition of Table 3 and new Figure 6 in subsection (f)(5); the non-substantive corrections to code citations related to channel zone exceptions in subsection (f)(5)(A)-(C); and the revision in (f)(5)(D) changing the term 'best management practices' to 'preferred management practices' as proposed in the Re-notice.

The Board should note that in Table 3, Column 2 (Overstory Canopy Cover), Row 4 (Outer Zone); the reference to "916.9(f)(4)(C)" would be more accurate if it read "916.9(f)(4)(C) 1."

The Departments support revisions proposed to subsections (f)(5)(B)1 regarding commercial thinning and QMD; (f)(5)(B)3 regarding elimination of Optional Amendment 4 and hardwood species retention; (f)(5)(B)4 regarding elimination of Optional Amendment 6 and large conifer tree retention; (f)(5)(B)5 regarding large tree recruitment; (f)(5)(B)6 regarding elimination of Optional Amendment 7; and (f)(5)(B)7 regarding elimination of Optional Amendment 8, as detailed in the Re-notice. See the Departments' June 18, 2009 letter, comment 76. See also Comment G3.

Comment G10. 14 CCR § 916.9 [936.9, 956.9], subsections (f)(5)(C) Outer Zone

The Departments support the proposed outer zone and oppose Optional Amendment 101. The Departments believe the proposed outer zone widths are appropriate for the conditions found in this geographic area (Sierra Nevada and Central Valley watersheds).

The outer zone for watercourses with confined channels in watersheds outside the coastal anadromy zone is 30 feet and its purpose is to meet the outer zone objectives found in 14 CCR § 916.9 [936.9, 956.9], subsection (c)(3). Optional Amendment 101 would eliminate the outer zone as proposed, which would

reduce the WLPZ width by 30 feet. This would result in a T/I rule WLPZ width of 70 feet (not 100 feet), which would not meet the goals of the T/I rules, and would be less than the standard Class I watercourse rule widths for all slope classes, which range from 75 to 150 feet (75 to 100 feet with cable yarding).

The literature states that most large wood recruitment (75% to 90%) comes from $\frac{3}{4}$ of one site potential tree height, on average, which equates to a buffer of approximately 95 ft in areas with ponderosa pine, Jeffery Pine, mixed conifer and true fir (ref. 14 CCR § 1060 - using an average of 100 yr site index for site classes 1-IV as an approximation of $\frac{3}{4}$ site potential tree height). Spence et al. 1996 state that buffer widths of approximately $\frac{3}{4}$ site potential tree height are needed to provide full protection of stream shading, litter inputs, and nutrient regulation. SWC (2008) reported that "A 30 meter wide buffer strip on both sides of a stream (with both equipment exclusion and no tree removal) generally reduces local impacts to a stream that are similar to a "no harvest" level".

The purpose of the additional 25-foot ELZ when evenaged silvicultural management is adjacent to the WLPZ is to buffer the WLPZ and outer zone from sediment impacts and to ensure the outer zone can function to meet its objectives, without requiring either overstory or understory trees to remain following harvesting.

Also see Comment G4 in this letter.

Summary:

➤ **Support - 14 CCR § 916.9 [936.9, 956.9], subsection (g) Class II watercourses**

➤ **Oppose - Optional Amendment 102, 103**

Comment H1. 14 CCR § 916.9 [936.9, 956.9], subsection (g)(1)(A)-(E) - Identification of Class II Large watercourses

This subsection 1) establishes two types of Class II watercourses, "standard" and "large," and 2) specifies means for distinguishing between the two types. The Departments continue to support the proposal for identification of Large Class II watercourses as proposed in the Departments June 18, 2009 letter in Comments 79 – 87, and as presented in the Re-notice. The Departments observe that the text in 14 CCR § 916.9 [936.9, 956.9], subsection (g)(1)(i) is slightly different than text addressing the same topic in 14 CCR § 916.9 [936.9, 956.9], subsection (c)(4)(i). The differences pertain to particular data sets useful in considering average precipitation. The Departments prefer the text in 14 CCR § 916.9 [936.9, 956.9], subsection (g)(1)(i) because there may be relevant data sets in addition to those listed in 14 CCR § 916.9 [936.9, 956.9], subsection (c)(4)(i) and their use should not be excluded. The Departments oppose Optional Amendment 102.

Optional Amendment 102 contains the office and field methods for identifying a large Class II watercourse that were contained in the initial T/I rule plead of May 8, 2009, and contains specification for application of Class II large requirements for the first 650 feet measured from the confluence with a Class I watercourse. The Departments do not find the 650 ft. length for a Class II-L watercourse sufficient, since downstream temperature response from timber harvesting in headwater streams is variable and this type of water temperature data have not been verified for California. SWC (2008) stated that past studies led them to conclude that the downstream temperature response from timber harvesting in headwater streams is highly dependent on many factors, including volume of stream flow, canopy cover, substrate type, in-stream wood volume, groundwater inflow, and hyporheic exchange in both the headwaters and downstream reaches. Benda et al. (2009) state that instream connectivity for watershed products may average two to three hundred meters (approximately 600 to 1000 feet), but that there may be spatial variation related to differences in watershed and stream attributes. The more conservative approach (i.e., 1000 feet) is justified to help recover listed species of anadromous fishes in California, particularly coho salmon.

The Departments' June 18, 2009 letter details the Departments' concerns with each office and field method proposed in the initial May 8 plead and provides a modified process based on some of the office and field methods that were proposed. This modified process was included by the Board in subsequent published pleads for public comment. The Departments continue to believe the modified process will provide the following benefits to plan submitters and reviewing agencies in the course of THP review, and to public trust resources:

1. Simplify planning for RPFs – existing maps and data can be used in the office to order and classify Large or Standard Class II watercourses;
2. Require less costly and less extensive data from plan submitters and reviewing agencies – field data need only be obtained by the plan submitter to modify identification of Class II-large watercourses as deemed necessary;
3. Maximize agency efficiency in regard to plan review time and resources for THP review – resources will not be needed to verify delineation results in the field and review can be focused on higher priority sites;
4. Ensure adequate protection for Class II watercourses that have the most value to downstream salmonid habitat – key watershed products, sediment retention, LWD, nutrients, and cool water, will be delivered by headwater streams;
5. Rely on well-developed and easily available methods and data, including direct observation, average precipitation and runoff data from federal and state agencies, water temperature comparisons, and streamflow and temperature monitoring data.
6. Encourage landowners to document temperature and flow conditions of Class II watercourses under their ownership – promote site-specific

approaches adjacent to headwater stream reaches and maximize timber production in conjunction with salmonid habitat watershed products in headwater reaches of watersheds.

Comment H2. 14 CCR § 916.9 [936.9, 956.9], subsection (g)(1)(E) Large Class II enhanced protection measures

The Departments support the elimination of Optional Amendment 12 and support the proposed revisions to (g)(1)(E) including application of enhanced protection measures for the first 1,000 feet of a large Class II channel as recommended in the Departments' June 18, 2009 letter Comment 89.

The Departments' recommendation intends that the portion of a Class II large watercourse beyond the first 1,000 feet shall have the Class II-Standard WLPZ widths for the core and inner zones, which equal the WLPZ widths and slope classes found in 14 CCR § 916.5 [936.5, 956.5] of the standard FPRs. The operational requirement for the core zone is found in the proposed 14 CCR § 916.9 [936.9, 956.9], subsection (g)(2)(A) and the operational requirement for the Class II-Standard inner zone is found in the proposed 14 CCR § 916.9 [936.9, 956.9], subsections (g)(2)(B) and (g)(2)(B) 1. Other operational requirements, including canopy closure in the inner zone, are the same as those under 14 CCR § 916.5 [936.5, 956.5] for Class II watercourses.

Comment H3. 14 CCR § 916.9 [936.9, 956.9], subsection (g)(1)(F) Map documentation

The Departments support the nomenclature revision to (g)(1)(E), page 66, lines 5-6, as proposed in the Re-notice and recommended in the Departments' June 18, 2009 letter, Comment 90.

Comment H4. 14 CCR § 916.9 [936.9, 956.9], subsection (g)(2) Class II WLPZ widths and operational requirements

The Departments support eliminating Optional Amendments 4, 5, 6, 7, 8, and oppose Optional Amendment 103 (See following comments for details). The Departments support measures that ensure Class II watercourses will continue to retain sediment, recruit LWD, and provide nutrient inputs that will maintain downstream salmonid habitat. The Departments support the non-substantive nomenclature revisions and typo corrections to subsection (g)(2); the replacement of Table Y with the reformatted Table 4; and the revision of Figure 7 as specified in the Re-notice.

This subsection specifies various protective measures to be applied for Class II watercourses and the WLPZ in watersheds with listed anadromous salmonids. Protection of Class II watercourses for LWD recruitment, sediment retention, and nutrient supply, together with salmonid habitat protection measures for riparian functions of Class I and III watercourses, comprise the suite of forest practices that the Departments anticipate will help recover listed salmonids. Adoption of

Optional Amendment 103 would eliminate the overall positive contribution of the proposed Class I, II, and III amendments that the Departments find would aid in recovering listed salmonids by protecting and restoring salmonid habitat. See the Departments' June 18, 2009 letter, comment 91.

Comment H5. 14 CCR § 916.9 [936.9, 956.9], subsection (g)(2)(A) Core Zone

The Departments oppose Optional Amendment 103 because it eliminates core zone protections for Standard Class II watercourses, reduces the width of the core zone on Class II-large watercourses and reduces tree retention requirements in these two zones. Core zone protections will provide substantially enhanced resource protection from sediment and temperature effects and maintain functions of LWD and nutrient input. The Board will not be able to achieve the goals and objectives of the T/I rules or those for Class I watercourses without core zone protections for Standard Class II watercourses. Also see the Departments' June 18, 2009 letter, Comment 92.

Comment H6. 14 CCR § 916.9 [936.9, 956.9], subsection (g)(2)(B) Inner Zone

The Departments support elimination of Optional Amendments 4, 5, 6, 7, and 8 and oppose Optional Amendment 103. The Departments support the widths proposed for the inner zone in Table 4 because they will ensure riparian functions will be maintained along all Class II watercourses. Also see the Departments' June 18, 2009 letter Comments 94 – 97 and Comment G3 above.

The Departments support revising subsection (g)(2)(B)2(i) to require increasing QMD only when commercial thinning is used so this subsection is consistent with requirements of selection silviculture and so that landowners using this silvicultural system can be in compliance with this subsection while still meeting the goals of 14 CCR § 916.9 [936.9, 956.9]. Increasing QMD is specified for thinning from below (undefined in the FPRs), a form of commercial thinning that may be used in the inner zone. The Departments also support the proposed revisions to the hardwood species retention requirement in subsection (g)(2)(B)2.(iii).

Class II protection measures in Optional Amendment 103 are inferior for all anadromous salmonids. The Departments agree with the statement in the Board's Re-notice published July 24, 2009 that Optional Amendment 103 "does not highly contribute to achieving properly functioning anadromous salmonid habitat because it deletes the Core Zone on Class II standard watercourses, reduces the width of the Core Zone on Class II large watercourses, and reduces tree retention requirements in both zones."

The Departments do not support a 25 foot reduction for cable yarding on slopes over 50% on Class II standard watercourses, as proposed in Table 4 of Optional Amendment 103. This would result in a less than 100 feet WLPZ width on the steepest slopes. The 1999 Report of the Scientific Review Panel on California Forest Practice Rules (Ligon et al. 1999) recommended to the Board a Class II

WLPZ of at least 100 feet regardless of slope for all Class II WLPZs. Frequently, cable yarder settings are on slopes substantially greater than 50%, but which are not recognized as inner gorges and therefore do not receive inner gorge protection measures. A reduction to 75 feet for the steepest Class II yarder settings would pose an increased risk to anadromous salmonid habitat due to a greater potential for hillslope mass wasting, especially on recently harvested settings under stressing storm conditions. Such a reduction would not help achieve properly functioning anadromous salmonid habitat.

For Class II standard watercourses, both the proposed amendments and Optional Amendment 103 retain watercourse and lake protection zone widths of at least 50, 75, or 100 feet depending on slope, and canopy retention of at least 50% total canopy covering the ground. However, Optional Amendment 103 eliminates the 15-foot wide Core Zone for Class II standard watercourses. The Departments support retention of 80 percent overstory canopy in the inner zone for Class II large watercourses for the Coast and Southern Forest Districts of the coastal anadromy zone and 70% overstory in the Northern Forest District of the coastal anadromy zone. This application is restricted to the Class II large WLPZ from the confluence with a Class I watercourse, upstream for 1000'.

Optional Amendment 103 proposes for Class II large watercourses a minimum of 60% total canopy cover for watersheds in and outside the coastal anadromy zone. There are distinct differences between total canopy and overstory canopy that can influence riparian functions. Overstory canopy is defined in the current Forest Practice Rules as the portion of the trees, in a forest of more than one story, forming the upper canopy layer. Understory is defined as generally trees and woody species growing under an overstory. Berbach et al. (1999) defined overstory canopy as the canopy of the dominant and predominant trees of a stand. Understory canopy was defined as the canopy of vegetation (suppressed trees, shrubs) under dominant and predominant trees of a multistoried or multilayered stand. Total canopy is the summation of canopy at each layer, with a total maximum of 100 percent; it is used where there are multilayered or multistoried canopies (Berbach et al. 1999). In actual field situations, defining overstory and understory may be difficult and how they are defined may vary depending on observer (Robards et al. 2000, Nakamura 2000).

Total canopy and overstory canopy will be identical when there is only one canopy layer in a stand (i.e., an evenaged stand, as often occurs in a plantation—see Figure 1a). In contrast, total canopy and overstory canopy will be considerably different in stands with few dominant and co-dominant trees, but with an extensive layer of young conifers, shrubs, and suppressed trees (see Figure 1b). This situation is common in California due to numerous past harvest entries into a given stand, the use of a variety of silvicultural systems, the presence of numerous conifer species with varying light tolerance levels, etc.



Figure 1a (upper diagram) illustrates a situation where overstory canopy and total canopy are identical. Figure 1b (lower diagram) illustrates a case where overstory canopy and total canopy are considerably different (drawings from Chan et al. 2006).

Dominant and co-dominant conifer trees are the largest trees in a riparian stand and provide the highest value for several riparian functions, including providing large wood recruitment trees to the channel and stream shading. Wilson (2006) reported that there was a strong relationship between maximum daily air temperature differences and overstory canopy in a second-growth coast redwood stand in Humboldt County. Microclimate control, including appropriate air temperature, is important for maintaining adequate amphibian habitat within riparian zones. Kelsey and West (1998) list providing habitat for wildlife as one of the functions of buffer strips and this requires an appropriate level of overstory canopy. A riparian stand composed of shrubs and young or heavily suppressed conifers, while producing a high total canopy, provides reduced input for large wood into the channel, shading, channel bank stability, microclimate control, and wildlife habitat for state and federally listed species.

Several studies have compared different instruments for measuring overstory canopy (Robards et al. 2000, Nakamura 2000, Vales and Bunnell 1985, Fiala et al. 2006). These studies have found that the sighting tube/moosehorn is the most precise and unbiased instrument for measuring vertical canopy. Tools such as the spherical densiometer, while often used, produce low accuracy because they project a wide angle of view toward the canopy, thereby overestimating vertical canopy coverage (Robards et al. 2000, Nakamura 2000). In many of the published and grey literature papers, overstory canopy measured with the spherical densiometer, sighting tube, etc. is defined as anything above eye level.

Similarly, understory canopy is measured as canopy located below eye level. While simple to use, these definitions of overstory and understory do not agree with FPR definitions.

Measuring only overstory canopy, and differentiating between total canopy and overstory canopy may at times be difficult, but approximations can be made in the field. Robards (1999) and Nakamura (2000) state that the sighting tube can be used to differentiate between overstory and understory canopy, but provide no specific information on how to accomplish this task. Fiala et al. (2006) report that with measurement using the moosehorn (similar to the sighting tube) it may be possible to glean limited information about cover by species or layer. However, they state that overlap among layers of cover and tree species, with shorter trees obstructing higher layered trees, can impede the ability of the user to identify or differentiate among them. Field observations using a sighting tube in California confirm that this problem is difficult to overcome in multi-layered stands. Fiala et al. (2006) recommend the use of the line-intercept method if detailed canopy structure information is required (e.g., overstory vs. understory canopy percentages, or percent cover by species, shade tolerance, etc.). The line-intercept method measures canopy cover by recording horizontal distances covered by live crown along a line transect. It includes the entire length within the outline of a crown as cover. Canopy cover data can be collected for trees in an overstory layer and an understory layer. Recording percent cover by vertical layer is impossible with the spherical densiometer and with hemispherical photography (Fiala et al. 2006).

The Departments have concluded the canopy coverages proposed in Optional Amendment 103 (i.e., total canopy of 60%) will not be able to achieve properly functioning anadromous salmonid habitat and meet the proposed goals of the T/I rules. The current definition of canopy under 14 CCR § 895.1 would allow inclusion of large woody brush species in the total canopy estimate, and this material, as stated earlier, provides reduced input for large wood into the channel, shading, channel bank stability, microclimate control, and wildlife habitat for state and federally listed species.

Optional Amendment 103 eliminates the Core Zone for Class II standard watercourses and reduces the Core Zone for Class II large watercourses by five feet in both the coastal anadromy zone watersheds and watersheds outside the coastal anadromy zone. The Departments support retaining Core Zone widths and prescriptions as proposed because this would provide superior anadromous salmonid protection from sediment and temperature effects, as well as woody debris input. The Departments have observed previously logged areas where large trees were removed immediately adjacent to the active Class II stream channel, resulting in less stream bank stability and increasing the chance of sediment input. Based on many years of observing timber harvesting operations in Class II settings, the Departments have concluded that a core zone of at least 15 feet wide for Class II standard and at least 30 feet for Class II large

watercourses would improve near-channel and in-channel stability, and eliminate the field controversy frequently encountered during plan layout and preharvest inspections regarding what constitutes a Class II channel tree.

Class II large watercourse and lake protection zone total widths (combined core and inner zone) are the same for both the proposed amendments and Optional Amendment 103. However, application of Optional Amendment 103 would result in a 17% reduction in Core Zone width for watersheds in the coastal anadromy zone and a 25% reduction in Core Zone width for watersheds outside the coastal anadromy zone. This reduction would incrementally decrease litter and woody debris input from the canopy, raindrop interception by the canopy, and would increase the potential for slope ravel and localized near-stream slope failures in steep settings, as root systems of harvested non-sprouting conifers (e.g., Douglas- fir) decay.

Elimination of the Core Zone from Class II standard watercourses and reducing it for Class II large watercourses as proposed in Optional Amendment 103 would also decrease the efficiency of the forest floor filter strip in preventing sediment transport through the zone to the watercourse. The Departments recognize this is particularly important below drainage facilities (ditch relief culverts, water breaks, and rolling dips) on both rocked and unrocked forest roads. In these settings, delivery of fine sediment from road surfaces to watercourses is well documented as a major source of chronic turbidity in anadromous salmonid habitat throughout the winter period. In addition, maintaining a robust Core Zone is also important because timber operations in the adjacent inner zone do not necessarily preclude exceptions, in-lieu practices, or alternative prescriptions as long as they conform to the goals of 14 CCR § 916.9 [936.9, 956.9].

Comment H7. 14 CCR § 916.9 [936.9, 956.9], subsection (g)(2)(B)1. Class II standard watercourses

The Departments support the nomenclature revision in this subsection as specified in the Re-notice.

Comment H8. 14 CCR § 916.9 [936.9, 956.9], subsection (g)(2)(B)2. Class II large watercourses in the coastal anadromy zone

For the inner zone in the “Coastal Anadromy Zone” excluding the SSD, the Departments support the 80 percent overstory canopy requirement in the coastal anadromy zone. The Departments oppose Optional Amendment 103 that would lower the post harvest canopy closure from 80% overstory canopy to 60% total canopy in the inner zone of the coastal anadromy zone. Also see Comment G3 and H6.

Comment H9. 14 CCR § 916.9 [936.9, 956.9], subsection (g)(2)(B)2.(iv) and (v) Large conifer retention and recruitment

The Departments support the revisions clarifying application of large conifer tree retention and large tree recruitment requirements as specified in the Board’s Re-

notice and recommended in the Departments' June 18, 2009 letter Comments 96 and 97.

The Departments oppose the reduction of the number of large retained conifers from 13 to 7 in the coastal anadromy zone and from 7 to 4 in all other watersheds as proposed in Optional Amendment 103 for the following reasons:

1) Retaining the currently proposed number of largest trees per acre in the WLPZs addresses the documented importance of LWD recruitment to Class II watercourses and ameliorates the historical depletion of large conifers adjacent to headwater streams. In addition, the current LWD recruitment rate is necessary to address the absence of any LWD recruitment requirement for Class III watercourses; wherein, sediment is stored and metered out to fish bearing streams over time (Swales 2009).

2) Large and small Class II watercourses and Class III watercourses comprise most of the headwater stream network in watersheds. Headwater streams can constitute 80% or more of the stream network in a watershed (Swales 2009).

3) Reeves et al. (2003) found almost half of the volume of LWD found in fish bearing streams in Oregon originated in steep tributary streams (Swales 2009).

4) LWD is an important component in headwater reaches which provides shelter, nutrients and habitats for invertebrates and fish in downstream reaches (Swales 2009).

5) The absence of woody debris in headwater streams enables sediment to move rapidly down channels rather than being stored in the channel by LWD and slowly metered downstream. This results in an alteration of the sediment delivery/storage regime and reduction of the complexity of habitat in fish bearing streams (Swales 2009).

6) DFG recommended in its coho recovery plan (CDFG 2004), Alternative A, recruitment of LWD to Class II watercourses be ensured by retaining the five largest (dead or alive) conifers on each side of the watercourse per 330 feet of stream channel length, within 50 feet of the watercourse transition line. The recovery plan's retention number is lower than what is proposed, but the recovery plan's recommendation was for all Class II watercourses regardless of watercourse size. Thus, the recovery plan's recommendation covered more of the stream network in the watershed. The Board's revised T/I rules propose to require a higher level of large tree retention on Class I and large Class II watercourses, with a reduced requirement for small (standard) Class II watercourses (i.e., large wood is recruited through the requirements for 50% total canopy with residual overstory canopy composed of at least 25% of the existing overstory conifers), and none for Class III watercourses. Therefore, the

Departments support the Class II-L WLPZ large tree retention recruitment standard as proposed.

Comment H10. 14 CCR § 916.9 [936.9, 956.9], subsection (g)(2)(B) 3 Class II watercourses outside watersheds in the coastal anadromy zone

The Departments support elimination of Optional Amendments 4, 5, 6, 7, and 8 from this subsection. For the inner zone, the Departments support the 70 percent overstory canopy requirement in watersheds outside the coastal anadromy zone. The Departments oppose Optional Amendment 103 that would lower the post harvest canopy closure in the inner zone from 70% overstory canopy to 60% total canopy in watersheds outside the coastal anadromy zone. See also Comment H6 above regarding Optional Amendment 103.

The Departments support replacing the term 'coho salmon ESU' with 'coastal anadromy zone' in subsection (g)(2)(B)3.; the revision of subsection (g)(2)(B)3.(i) to require increasing QMD only when commercial thinning is used; and the revision to the hardwood species retention requirement in subsection (g)(2)(B)3.(iii).

The Departments support the proposed revision to subsection (g)(2)(B)3.(v) that clarifies the area over which the 13 largest conifers are to be retained, and the deletion of Optional Amendment 6 as recommended in the Departments' June 18, 2009 letter in Comment 97. Also see Comment G3 above.

The Departments support the proposed revisions to subsection (g)(2)(B)3.(v) that clarifies the application of this subsection and its requirements as recommended in the Departments' June 18, 2009 letter in Comment 97. The Departments support the deletion of Optional Amendment 7 regarding angular canopy density as recommended in the Departments' June 18, 2009 letter in Comment 97. Also see Comment G3 above.

The Departments support the deletion of Optional Amendment 8 regarding basal area. Also see Comment G3 above.

Comment H11. 14 CCR § 916.9 [936.9, 956.9], subsection (g) (3) Class II watercourses in the Southern Subdistrict of the Coast Forest District

The Departments support the Class II watercourse protection measures for the Southern Subdistrict (SSD) of the Coast Forest District. The Departments' support of this proposal is contingent on adoption of a Class I WLPZ prescription with a 30' no-harvest core zone and a 70' inner zone with 80% overstory canopy retention; and retention of existing County rules specified under Article 13 of the Forest Practice Rules. Also see Comment 98 in the Departments' June 18, 2009 letter.

Summary:

- **Support - 14 CCR § 916.9 [936.9, 956.9], subsection (h)(1)-(8)**
- **Oppose - Optional Amendments 104, 105**

Comment I1. 14 CCR § 916.9 [936.9, 956.9], subsection (h) Class III Watercourses

The Departments support elimination of Optional Amendments 15, 16, and 18 and support the replacement of amendment language with Optional Amendments 17 and 19. The Departments oppose Optional Amendments 104 and 105. See also Comment 99 in the Departments' June 18, 2009 letter.

The Departments support the revision to redundant language in subsection (h) page 82, line 13, as specified in the Re-notice.

Comment I2. 14 CCR § 916.9 [936.9, 956.9], subsection (h)(1)(A)-(C)

The Departments support the grammatical correction to subsection (h)(1)(C) as specified in the Re-notice.

Comment I3. 14 CCR § 916.9 [936.9, 956.9], subsection (h)(2)

The Departments support elimination of Optional Amendment 15. See also Comment 103 in the Departments' June 18, 2009 letter.

Comment I4. 14 CCR § 916.9 [936.9, 956.9], subsection (h)(4)

The Departments support elimination of Optional Amendment 16 and replacement of the subsection retention requirement with Optional Amendment 17, which retains hardwood in the entire ELZ width regardless of slope. Also see Comment 104 of the Departments' June 18, 2009 letter.

The Departments oppose Optional Amendment 104. This amendment would replace the requirement to retain hardwoods, where feasible, within 25 feet of the WTL instead of within 30 or 50 feet from the WTL, depending on slope. The Departments do not support this option because field inspections have revealed that steep Class III watercourses often have banks and unstable areas adjacent to the channel that exceed 25 feet. These areas are often devoid of any trees. The literature suggests that retention of hardwoods reduces sediment movement to channels by retaining current and future sources of woody debris to interrupt transport of sediment at the soil surface, as well as to maintain soil stabilizing root systems and litter fall to provide surface cover. Additional hardwood retention in the ELZ would provide more rainfall energy dissipation and root strength to stream banks, scarps and other unstable areas adjacent to Class III watercourses. Additionally, since the proposed amendments do not require LWD recruitment for Class III watercourses, the Departments support the proposed requirement to retain hardwoods in the entire Class III ELZ. Also see Comment 107 of the Departments' June 18, 2009 letter.

Comment I5. 14 CCR § 916.9 [936.9, 956.9], subsection (h)(6)

The Departments support replacing the subsection's retention standard with Optional Amendment 19 and eliminating Optional Amendment 18. Also see Comment 103 and 106 regarding Optional Amendment 15 in the Departments' June 18, 2009 letter.

The Departments oppose Optional Amendment 105. This amendment would modify the requirement to retain all countable trees needed to achieve resource conservation standards in 14 CCR § 912.7 [932.7, 952.7] within the Class III ELZ by retaining instead all non-merchantable conifers within the Class III ELZ, except as necessary for cable corridors, crossing construction, and safety reasons. The Departments do not support this option because field experience has indicated that non-merchantable conifers would likely not provide the equivalent level of protection to riparian functions as countable trees would, such as rainfall energy dissipation, course woody debris, and future LWD. This is especially true if non-merchantability is tied more to the amount of inherent defect (rot, disease, deformity) and not to tree size. The Departments find countable trees more suitable because they must be in place at least two growing seasons, must be live and healthy, and must have at least one-third of their length in live crown (except in pure stands of Douglas-fir, where the tree must have at least one-fourth of its length in live crown). Because the revised T/I proposal does not require LWD recruitment for Class III watercourses, the Departments believe countable trees, not non-merchantable conifers in the ELZs, will provide superior riparian function in the watershed.

Comment I6. 14 CCR § 916.9 [936.9, 956.9], subsection (h)(7)

The Departments support the non-substantive grammatical revision specified in the Re-notice.

Comment J. 14 CCR § 916.9 [936.9, 956.9], subsection (k) Year-round road, landing use limitations

The Departments support the revision to include a requirement for hydrologic disconnection as recommended in the Departments' June 18, 2009 letter, Comment 108.

Comment K. 14 CCR § 916.9 [936.9, 956.9], subsection (l)(1)-(4) Winter period operations

The Departments support the revisions to incorporate deleted sections of 14 CCR § 916.9 [936.9, 956.9], subsection (k), clarify the subsection title and other grammatical corrections as specified in the Re-notice and previously recommended in the Departments' June 18, 2009 letter, Comment 109.

Comment L. 14 CCR § 916.9 [936.9, 956.9], subsection (n)(1)-(7) Treatments to stabilize soils

The Departments support incorporation of Optional Amendments 20, 21, 22, and

23 as recommended in Comment 110 of the Departments' June 18, 2009 letter.

Summary:

- **Support - 14 CCR § 916.9 [936.9, 956.9], subsection (r) Water Drafting**
- **Oppose - Optional amendment 106**

Comment M. 14 CCR § 916.9 [936.9, 956.9], subsection (r) Water Drafting

The Departments support the proposed revisions to the amended language for water drafting, and oppose Optional Amendment 106. Optional amendment 106, which retains the existing T/I rule language for water drafting, differs from the proposed rule language in the following ways:

1. Does not comply with Fish and Game Code (FGC) § 1600 et seq.;
2. Does not include basic information on the estimated drainage area above the point of diversion; requires some similar information, but only within a drafting plan;
3. Does not require verification of adequate streamflow;
4. Does not include standard minimum protective measures; and
5. Does not require drafting logs to be submitted to CAL FIRE.

As stated in the ISOR (BOF 2009), one of the Board's goals for the T/I rules is to avoid or reduce duplicative information requirements that adds cost to the THP preparation process. One way to address redundant permitting processes and improve permitting efficiency for landowners and public agencies is to incorporate requirements into the FPRs that provide consistency with DFG requirements and FGC statutes, such as FGC § 1600 et seq. The amended language in 14 CCR § 916.9 [936.9, 956.9], subsection (r) provides for a more streamlined permitting process than the existing rule and Optional Amendment 106. Optional Amendment 106 does not satisfy project disclosure requirements under CEQA or provide for adequate information for evaluation of water drafting when the THP provides for notification under FGC § 1611. In addition, the optional language does not accurately reflect FGC § 1600 approving authority, and does not reflect the correct relationship between a plan, a THP, notification, and an agreement. The proposed language makes clear FGC § 1600 authority and the use of the THP as notification. The Departments also recommend that plan submitters can make most efficient use of existing streamlining opportunities by utilizing FGC § 1611, which allows the THP to serve as notification. The proposed language accomplishes this goal.

Optional Amendment 106 does not include basic information on the estimated drainage area above the point of diversion. This information is calculated for watercourse crossing design and is readily obtainable by the plan preparer. This information will assist Review Team staff to evaluate flow discharge and persistence relative to the appropriateness of the proposed drafting operations.

Optional Amendment 106 requires some similar information as the proposed language (i.e., estimated streamflow, pumping rate and duration, and alternatives) (14 CCR § 916.9 [936.9, 956.9], subsection (r)(2)(G) and (H)), but only within a drafting plan. The conditions within Optional Amendment 106 that require a drafting plan include where flows are less than 2 cubic feet per second, which applies most of the time in California on typical timberland streams. Therefore, requiring the information in all cases, as within the proposed rule language, is not a significant additional burden on THP preparers and simplifies the process.

14 CCR § 916.9 [936.9, 956.9], subsection (r)(2) provides a comprehensive list of information to be gathered and submitted with the notification. Recall that the THP can act as the notification under FGC § 1611, which was adopted to reduce duplication of information and improve permitting efficiency. Many plan submitters take advantage of this option. This information list will allow Review Team agencies and the public to evaluate proposed water drafting and determine whether substantial adverse impacts would occur from the water drafting. In addition, it would allow DFG to provide an agreement to address those impacts. In practice, plan submitters often pre-consult with DFG regarding which watercourse crossings or water drafting proposals will require a streambed alteration agreement, and then submit fees after this information is determined. The proposed language would not change that practice. The language does not require a new notification for water drafting locations that already operate under an agreement. However, DFG requires disclosure of the use of existing permitted sites to be used under a new THP, and also other locations in the same watershed, whether or not DFG provided an agreement, so that there is adequate information in the THP to evaluate cumulative impacts and fulfill the disclosure requirements of CEQA. The Departments contend that the likelihood of water drafting operations to have a significant or cumulative impact in the coastal anadromy zone is relatively high if appropriate mitigation or operational provisions are left to chance. Optional Amendment 106 does not contain a complete list of the types of information that DFG requires to evaluate a notification for water drafting, which would delay review of the THP, or separate notification while DFG requests the information and waits for the plan submitter to provide it.

The proposed rule 14 CCR § 916.9 [936.9, 956.9], subsection (r)(2)(I) requires disclosure of the streamflow measurement methods and timing. Optional Amendment 106 does not require verification of adequate streamflows. Fish, including coho salmon and steelhead, need adequate water depth to survive. The most critical impact from water drafting is dewatering of a fish-bearing stream. Even though a plan has minimum bypass flow conditions, compliance is difficult to measure. Streamflow is very difficult to visually estimate, even by biologists and DFG staff that have conducted streamflow measurement with standard instruments. Water drafting operators are less able to make an

accurate visual estimate of streamflow in order to comply with minimum flow conditions. Visual estimates are hampered by differing stream widths and depths. Not including rule language that addresses and requires verification of adequate streamflow puts coho salmon at risk from dewatering during drafting because the operator does not verify adequate streamflows prior to drafting. This was shown to be an issue by DFG monitoring of drafting operations in Mendocino County in 2008. Verification of streamflows is also often a condition of Streambed Alteration Agreements, and the proposed language contributes toward streamlining and consistency with FGC § 1600 et seq., whereas Optional Amendment 106 does not.

Optional Amendment 106 also only requires screen specifications when a drafting plan is prepared. As stated above, the minimum conditions that require a drafting plan (where flows are less than 2 cubic feet per second, etc.), applies most of the time on typical timberland streams in California. Therefore, requiring the screening information in all cases, as within the proposed rule language, is not a significant additional burden on THP preparers, and simplifies the process. Additionally, the screening criteria contained in the proposed rule language (14 CCR § 916.9 [936.9, 956.9], subsection (r)(3)(A)), is DFG's standard and has been applied statewide since 2000 (CDFG 2000).

Optional Amendment 106 does not include two standard minimum protective measures that are contained in the proposed rule subsection 14 CCR § 916.9 [936.9, 956.9], (r)(3)(C) and (D) that require barriers to sediment transport and drip pans or equivalent be used. The Departments support the inclusion of these requirements to provide standard minimum protective measures. Barriers to sediment transport are a common recommendation from DFG to address truck encroachment and sediment transport from the drafting pad to the watercourse. Water drafting trucks commonly overflow, and even though the existing T/I Rules require road approaches to be surfaced with rock to minimize sediment production, often the excessive overflow and continued use of the drafting pad generate sediment laden water that typically flows toward the watercourse. The proposed rule language in 14 CCR § 916.9 [936.9, 956.9], subsection (r)(3)(C) would require feasible measures to prevent this common impact to aquatic resources.

Drip pans or absorbent pads are also a feasible measure required by 14 CCR § 916.9 [936.9, 956.9], subsection (r)(3)(D). FGC § 5650 specifically prohibits petroleum products from being placed where they may pass into waters of the State. This proposed subsection works in concert with subsection (r)(3)(C) to minimize impacts to aquatic resources from drafting trucks. These two sets of requirements, along with the other requirements in 14 CCR § 916.9 [936.9, 956.9], subsection (r)(3), are already general conditions of agreements issued by DFG, which promotes the Board's goal to provide consistency with other agency's requirements.

The proposed rule language requires an operation log that documents drafting parameters to be filed with CAL FIRE at the end of operations (14 CCR § 916.9 [936.9, 956.9], subsection (r)(3)(F)). This will allow CAL FIRE, public and Review Team staff access to ensure compliance with the rules. Monitoring conducted by DFG in Mendocino County in 2008 documented non-compliance with drafting requirements. Although the rate of non-compliance with existing rule requirements for drafting is unknown, filing of logs will be an incentive to comply. Optional Amendment 106 only requires a drafting log be kept when a drafting plan is prepared. As stated above, the minimum conditions that require a drafting plan (where flows are less than 2 cubic feet per second, etc.), applies most of the time on typical timberland streams in California. Therefore, requiring drafting logs in all cases, as within the proposed rule language, is not a significant additional burden on THP preparers, and simplifies the process.

The proposed rule subsection 14 CCR § 916.9 [936.9, 956.9], (r)(3)(G) requires a pre-operations field review of the drafting measures. Optional Amendment 106 again only includes this when a drafting plan is prepared. This requirement is consistent with 14 CCR 1035.2, which requires a pre-operations meeting between the RPF and LTO. The proposed language clarifies this requirement; if it were not included, it could lead to errors in operations that would increase the risk of sedimentation and dewatering of coho streams.

Comment N. 14 CCR § 916.9 [936.9, 956.9], subsection (s)(5) Exemption Notices

The Departments support the revision to correct references to FGC § 1600 et seq. as recommended in the Departments' June 18, 2009 letter, Comment 113.

Comment O1. 14 CCR § 916.9 [936.9, 956.9], subsection (t)(5) Emergency Notices

The Departments support the revision to correct references to FGC § 1600 et seq. as recommended in the Departments' June 18, 2009 letter, Comment 114.

Comment O2. 14 CCR § 916.9 [936.9, 956.9], subsection (t)(7)(A) Emergency Notices

The Departments support the revision to conditions for logging under emergency notices as recommended in the Departments' June 18, 2009 letter, Comment 115.

Summary:

14 CCR § 916.9 [936.9, 956.9], subsection (v) - Site-specific measures or nonstandard operational provisions

- **Support - Option 107**
- **Oppose - Optional amendment 27**

Comment P1. 14 CCR § 916.9 [936.9, 956.9], subsection (v)(1)

The Departments support the revisions to this section clarifying that the provisions apply to watersheds with listed anadromous salmonids exclusively, which the Departments recommended in their June 18th letter, Comment 116. The Departments oppose Optional Amendment 26. The Departments strongly support development of site-specific plans, where possible, to develop properly functioning salmonid habitat. River systems show considerable temporal and spatial variability and it is often very difficult, or impracticable, to apply a general system of rules across all areas. Other agencies in the Pacific Northwest have also recommended the development of a site-specific approach to forest management. For example, the Aquatic Conservation Strategy of the Northwest Forest Plan recommends the adoption of a site-specific approach, wherever possible (Reeves 2006).

The language in 14 CCR § 916.9 [936.9, 956.9], subsection (v)(1) is superior and more protective of anadromous salmonids than that in Optional Amendment 26. The language in 14 CCR § 916.9 [936.9, 956.9], subsection (v)(1) requires the effects to the beneficial functions of the riparian zone to be equal to or more favorable than those expected to result from the application of the operational provisions required under the T/I rules. Optional amendment 26 requires a result of "improved beneficial functions of the riparian zone" without the specific requirement that the effects be equal to or more favorable than those expected to result from the application of the operational provisions required under the T/I rules.

The Departments appreciate the concerns expressed that any measures produced via site-specific analysis may be measured against numeric standards in the T/I rules rather than meeting desired goals. However, the Departments believe the results from any site-specific measure or nonstandard operation provision should be equal or exceed those that would result from the application of the operational provisions required under the T/I rules in order to provide a margin of greater confidence in the results. By forcing a comparison of the site-specific alternative to the results from the Board's operational provisions, the Board is essentially dictating a reasonable level and expectation for the timing and amount of benefit to the riparian zone affecting listed anadromy. It would be premature to have complete confidence in the results of Optional Amendment 26, given the fact that site-specific analysis tools have not been sufficiently tested in the field in California, nor do guidelines or regulations yet exist in California for their use by planners and regulators.

Comment P2. 14 CCR § 916.9 [936, 956], subsection (v)(2) Site-specific Plan

The Departments support revisions to this section clarifying the need for DFG written concurrence for projects with limited scope and providing the opportunity for preconsultation with reviewing agencies. For plans with limited scope projects, it will be more efficient and less costly for landowners to preconsult with DFG and obtain written concurrence for the project without the need for a

complex evaluation. The Departments agree that this will achieve the goals of 14 CCR § 916.9 [936.9, 956.9].

Comment P3. 14 CCR § 916.9 [936, 956], subsection (v)(3) Site-specific Plan

The Departments support the addition of subsection (v)(3) 7 requiring a monitoring plan for site-specific plans based on an evaluation of the beneficial functions of the riparian zone. Monitoring will assist in assessing the effectiveness of site-specific measures in promoting beneficial functions of the riparian zone, changes in delivery of watershed products, and impacts to salmonid habitat. This information will greatly assist in fine-tuning future analyses and protection measures, which will help achieve the Board's goal for improving forest management and productivity through implementation of the T/I rules.

Comment P5. 14 CCR § 916.9 [936, 956], subsection (v)(4)(F) Site-specific Plan

The Departments support the revision for grammatical correction as proposed in the Re-notice.

Comment P6. 14 CCR § 916.9 [936, 956], subsection (v)(5) Site-specific Plan

The Departments support inclusion of the site-specific plans for unconfined watercourses with flood prone areas in subsection (v), including revision of (v)(5)(D) 3 to replace the reference to developing a trajectory that addresses only limiting factors with a trajectory that addresses the goals of 14 CCR § 916.9 [936.9, 956.9], subsection (a). Both revisions were recommended by the Departments in their June 18, 2009 letter, Comment 75.

Comment P7. 14 CCR § 916.9 [936, 956], subsection (v)(6) Site-specific Plan

The Departments support the relocation of the fire hazard reduction goal from 14 CCR § 916.9 [936.9, 956.9], subsection (c)(5) to the site-specific plan section. Given the critical importance of the riparian zone to listed salmonid species, for which DFG has trustee responsibility, DFG must be able to provide input into the design and mitigation of fuel management projects allowed under this subsection to comply with the T/I WLPZ objectives for listed salmonids (14 CCR § 916.9 [936.9, 956.9], subsections (a) and (c)).

The Departments support Optional Amendment 107, which deletes the requirement for four-foot flame heights, because a specific flame height would be difficult to enforce.

Comment P8. 14 CCR § 916.9 [936.9, 956.9], subsection (v)(8) Site-specific Plan

The Departments support the revised language in 14 CCR § 916.9 [936.9, 956.9], subsection (v)(8). The Departments oppose Optional Amendment 27 and support the elimination of Optional Amendment 28. The language in 14 CCR § 916.9 [936.9, 956.9], subsection (v)(8) is superior and more protective of anadromous salmonids than that in Optional Amendment 27 because 14 CCR §

916.9 [936.9, 956.9], subsection (v)(8) retains provisions for non-concurrence from two or more review team agencies, including DFG. Also see Comment P1 above.

Optional amendments 26, 27, and 28 do not provide the level of detailed guidance needed to help analysts, plan submitters, or regulators to consistently or successfully use the results of site analysis tools under subsection 14 CCR § 916.9 [936.9, 956.9], subsection (v) independent of DFG concurrence. Optional amendments 27 and 28 do not provide for written comments by DFG and other Review Team agencies, which could lead to the Director's conclusion that the proposed alternative will not meet the goals of this section. This will result in lengthy plan review due to the lack of guidance and inconsistent application of site-specific analysis results from plan to plan. Again, given the untested models, analyses, and lack of clear guidance, written concurrence and oversight by DFG will be necessary to evaluate how the results will meet listed salmonid recovery plan goals and the objectives of the T/I rules. In addition, DFG cannot delegate oversight of take for state listed species such as coho salmon, and plans using a site-specific analysis to determine protective measures will need to be evaluated for take of state listed species.

Confidence about the results of site-specific analyses and models and how those results are translated into measures that protect and restore salmonid habitat will require establishing parameters and guidance for regulators, plan submitters and analysts. The amendment language is a good start for identifying the kinds of information and data to be analyzed. Guidance for turning model results or the results of watershed analyses into site-specific measures needs to be developed by the Board in cooperation with the public agencies and the regulated public. Implementation of pilot analyses will greatly assist in taking the next step toward consistent and understood use of such tools.

Comment P9. 14 CCR § 916.9 [936.9, 956.9], subsection (v)(9) Site-specific Plan

The Departments support the non-substantive corrections to this subsection as proposed in the Re-notice.

Comment P10. 14 CCR § 916.9 [936.9, 956.9], subsection (v)(10) Site-specific Plan

The Departments strongly support development of pilot projects and guidance to develop application of site-specific analysis tools and their use in forest management, and in particular to promote salmonid habitat protection and restoration goals. The Departments also support providing such guidance as a Technical Rule Addendum. The Departments support providing a pathway to meet the objectives of the T/I rules through the use of site-specific analysis and planning, along with specific guidance for analysts, plan submitters and regulating agencies about how, where and when to use the site-specific analyses and results. Washington State's Department of Natural Resources and

Humboldt Redwood Company in California may be able to provide examples of site-specific approaches that could be tested, as well as experience with processes for developing guidance for using the results to protect salmonid habitat from timber harvesting operation impacts. The Departments believe that landowners will be provided an incentive to participate in pilot projects and to use site-specific approaches in the future if the Board adopts revised T/I rules that provide a conservative standard for addressing forest practice impacts on salmonid habitat. The Departments believe that the joint recommendations for watercourse protection measures are at the appropriate level to incentivize use of subsection (v). A conservative standard reduces the risk of loss of habitat and species and gives confidence to the public of a predictable level of protection. A conservative standard also encourages landowners to assess those particular areas of their watersheds and property where different prescriptive measures may be applied without incurring higher risk of damaging salmonid habitat. Conversely, riskier protective measures may be appropriate in some locations and not in others. The Departments believe applying less protective measures across all watersheds with listed salmonids will result in few site-specific or watershed assessments to determine whether or not more conservative measures should be applied.

The only serious reservation by the Departments in regard to subsection (v)(10) is related to State's recent budget crisis. With recent and possible future general fund reduction mandates, and likely staff reductions, the Departments may be unable to respond to the proposed regulatory requirements within the specified time frames.

Comments on Changes to 14 CCR § 916.9 [936.9, 956.9], subsection (w) - Exemption

Comment Q. 14 CCR § 916.9 [936.9, 956.9], subsection (w)

The Departments support the proposed revisions as described in the Re-notice and recommended by the Departments at the Board's July 8, 2009 meeting because the revision corrects inadvertent exclusion of the T/I rules in 14 CCR § 916.9 et seq. providing for issuance of an ITP in a watershed with coho salmon.

Comments on Changes to 14 CCR § 916.12 [936.12, 956.12], subsection (f) Section 303(d) Listed Watersheds

Comment R. 14 CCR § 916.12 [936.12, 956.12], subsection (f)

The Departments support the proposed revisions as described in the Re-notice and recommended in the Departments' June 18, 2009 letter, Comment 125.

Comments on Changes to 14 CCR §§ 923.3, 943.3 and 963.3. Watercourse Crossings.

The Departments support the change in reference to the entire 1600 section of

the Fish and Game Code rather than only referencing Sections 1601 and 1603. Also see Departments' Comment 127, June 18, 2009.

Comment S1. 14 CCR § 923.3 [943.3, 963.3], subsection (a)

The Departments support deletion of the language referencing the installation of extra culverts.

Comment S2. 14 CCR § 923.3 [943.3, 963.3], subsection (e)

The Departments support elimination of Optional Amendment 30 as proposed in the Re-notice and recommended in Comment 129 of the Departments' June 18, 2009 letter.

Comment S3. 14 CCR § 923.3 [943.3, 963.3], subsection (g)

The Departments support elimination of Optional Amendment 31 and support the proposed revisions in the Re-notice and recommended by the Departments June 18, 2009 letter, Comment 130.

Comments on Changes to 14 CCR §§ 923.9, 943.9 and 963.9. Roads and Landings in Watersheds with Listed Anadromous Salmonids.

Summary:

- **Support - Previous Optional Amendments 33**
- **Oppose - Optional Amendments 32**

Comment T. 14 CCR § 923.9 [943.9, 963.9] Roads and Landings

The Departments support inclusion of Optional Amendment 33 and the elimination of Optional Amendment 32 as proposed in the Re-notice and recommended by the Departments June 18, 2009 letter, Comment 132. The Departments support the revisions to 14 CCR § 923.9 [943.9, 963.9], subsection (f) as proposed in the Re-notice and recommended by the Departments at the Board's July 8, 2009 meeting. Also see Comment Q above.

Comments on Changes to 14 CCR §§ 916.9.1 [936.9.1], 916.9.2 [936.9.2] and 923.9.1 [943.9.1] Protection measures in watersheds with Coho salmon

Comment U. 14 CCR §§ 916.9.1 [936.9.1], 916.9.2 [936.9.2] and 923.9.1 [943.9.1] Modification of "coho 2112 rules"

The Departments support revisions to these subsections as proposed in the Re-notice and recommended in Comment 134 of the Departments' June 18, 2009 letter.