

1 **BOF Threatened or Impaired Watersheds Rule Review**

2 **Draft Regulatory Proposal**

3
4 **December 17, 2008**

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7 **Group 1 (Goal/Intent and Definitions sections)** 14 CCR §§ 895; 898; 916, 916.1;
8 916.2; 916.9 (a) and (b);

9 **Group 3 (Cumulative Impacts and 303(d) listed waterbodies sections)** 916.12

10 **Group 4 (Water Drafting)** 916.9 (r)

11 **Group 4 (Roads)** 923.3 and 923.9

12 **Group 4 (Logging)** 916.9 (e), (h), (k), (l), (n), (s), (t), (y)

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14 **Explanation of Purpose of Draft Proposal (Strawman):** This document is the working draft of
15 the Forest Practice Committee (FPC) on potential regulatory amendments for the T/I rules .It
16 is generally referred to as the “Strawman”. The document is the product of the ongoing T/I review
17 process and decisions made by the FPC to date. It represents a “placeholder” of the review and
18 potential decisions made by the FPC to date. It will be subject to many changes as the T/I
19 review continues.

20 The draft rule amendments shown were generated from 1) evaluation made by the FPC of the
21 existing rules (using criteria in the review process such as science basis, legal authorities, policy
22 basis, economic impacts, enforceability). 2) rule language proposals brought forward by
23 stakeholders, 3) direction by the FPC to staff, and 4) incorporation by staff of selected
24 amendments consistent with FPC direction. Footnotes tagged to the amendments briefly
25 discuss the rational, purpose, or effects of the amendment.

The draft proposal contains ‘Optional Amendments’ for consideration by the FPC or the Board.
The Optional Amendments represent decision points the FPC or the Board will eventually need
to make. Information to assist the Board’s decision points will be forthcoming from the scientific
literature review, ongoing agency and stakeholder input, and advice from Board counsel on
legal authorities.

The amendments shown cover only a portion of the suite of T/I rules (those listed above). As
further reviews of other subsections are completed, additional amendments to the Draft
Proposal will follow. Completion of the Draft Proposal is intended in March of 2009, and will be
followed by Board action to issue a 45 Day Notice of Proposed Rulemaking.

1 **§ 895.1. Definitions.**

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3 **Channel zone** means that area that includes a watercourse's channel at bankfull stage
4 and a watercourse's floodplain, encompassing the area located between the watercourse
5 transition lines.¹

6 ~~**Fifty-Year Flood Flow** means that magnitude of peak flow which one would expect to~~
7 ~~be equaled or exceeded, on the average, once every 50 years. This flow shall be estimated by~~
8 ~~empirical relationships between precipitation and watershed characteristics and run off and then~~
9 ~~may be modified by direct channel cross-section measurements and local experience.~~

10 **Flood Flow** means that magnitude of peak flow that would, on the average, be equaled or
11 exceeded once every specified period of years (e.g. once every 10 year, 50 years, 100 years).
12 This flow shall be estimated by flood flow measurement records and relationships or by
13 empirical relationships between precipitation, watershed characteristics, and runoff, and may be
14 modified by direct channel cross-section measurements and local experience.²

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¹ **Channel zone**: Modified to improve clarity.

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25 ² **Flood Flow**: This definition replaces the 50 year flood flow and 100 year flood flow definitions with a standard definition, where any flood return interval could be inserted. It avoids duplicative definitions for rules which referred to varying periodic flood flows intervals.

1 **Riparian-Associated Species** means those plant, invertebrate, fish, or terrestrial
2 wildlife species that utilize the riparian areas during at least one critical life stage.³

3 ~~**Saturated soil conditions** means that site conditions are sufficiently wet that timber~~
4 ~~operations displace soils in yarding or mechanical site preparation areas or displace road and~~
5 ~~landing surface materials in amounts sufficient to cause a turbidity increase in drainage facilities~~
6 ~~that discharge into Class I, II, III, or IV waters, or in downstream Class I, II, III, or IV waters that~~
7 ~~is visible or would violate applicable water quality requirements.~~

8 ~~In yarding and site preparation areas, this condition may be evidenced by: a) reduced~~
9 ~~traction by equipment as indicated by spinning or churning of wheels or tracks in excess of~~
10 ~~normal performance, b) inadequate traction without blading wet soil, c) soil displacement in~~
11 ~~amounts that cause visible increase in turbidity of the downstream waters in a receiving Class I,~~
12 ~~II, III, or IV waters, or in amounts sufficient to cause a turbidity increase in drainage facilities that~~
13 ~~discharge into Class I, II, III, or IV waters, or d) creation of ruts greater than would be normal~~
14 ~~following a light rainfall.~~

15 ~~On logging roads and landing surfaces, this condition may be evidenced by a) reduced~~
16 ~~traction by equipment as indicated by spinning or churning of wheels or tracks in excess of~~
17 ~~normal performance, b) inadequate traction without blading wet soil, c) soil displacement in~~
18 ~~amounts that cause visible increase in turbidity of the downstream waters in receiving Class I, II,~~
19 ~~III, or IV waters, or in amounts sufficient to cause a turbidity increase in drainage facilities that~~
20 ~~discharge into Class I, II, III, or IV waters, d) pumping of road surface materials by traffic, or e)~~

24 ³ **Riparian Associated Species:** Provides definition for those species dependent upon riparian
25 areas. This term is used in current regulations, and no definition is provided. The term is
needed for specificity on which beneficial uses of water are intended to be protected.

1 ~~creation of ruts greater than would be created by traffic following normal road watering, which~~
2 ~~transports surface material to a drainage facility that discharges directly into a watercourse. The~~
3 ~~Soils or road and landing surfaces that are hard frozen are excluded from this definition. all soil~~
4 pore spaces are filled with water and runoff is likely to occur. Indicators of saturated soil
5 conditions may include, but are not be limited to: (1) areas of ponded water, (2) pumping of fines
6 from the soil or road surfacing material when operated upon, (3) loss of bearing strength
7 resulting in the deflection of soil or road surfaces under a load, such as the creation of wheel
8 ruts, (4) spinning or churning of wheels or tracks that produces a wet slurry, or (5) inadequate
9 traction without blading wet soil or surfacing materials⁴.

21 ⁴ Saturated soil conditions: This definition separates characteristics of saturated conditions
22 from resultant impacts. Modifications are made to clarify when the road itself is an
23 unacceptable condition. Deletes reference to ancillary undesirable impacts to water quality.
24 These deleted undesirable impacts should be reinserted into specific rule requirements in that
25 that prescribe operational limitations unsaturated soil conditions and are reinserted in section
916.9 (1)(3). The definition deletes unnecessary and repetitive descriptions of conditions that
are evidenced by saturated soil conditions. It also deletes redundant references to resultant
impacts from operation on saturated soil conditions. Note: the FPC on November 3, 2008,
indicated some additional potential modifications on page3, line 22 regarding the need for
listing the evidenced situations as examples; also, recommendations were made to clarify the
definition of "bearing strength" has one of the conditions that evidence, saturated soil
conditions. These changes have not been included in the current proposal and clarification of
their inclusion is needed by the FPC All included changes above were recommended by CGS and P.
Ribar.

1 **Stable operating surface** means (OPTIONAL AMENDMENT 2) that throughout the period of
2 use, ~~the operating surface of a logging road or landing does not either (1) generate waterborne~~
3 ~~sediment in amounts sufficient to cause a turbidity increase in downstream Class I, II, III, or IV~~
4 ~~waters, or in amounts sufficient to cause a turbidity increase in drainage facilities that discharge~~
5 ~~into Class I, II, III, or IV waters or, that is visible or would violate applicable water quality~~
6 ~~requirements; or (2) channel water for more than 50 feet that is discharged into Class I, II, III, or~~
7 ~~IV waters.~~ means a road or landing surface that can support vehicular traffic, has a structurally
8 sound road base appropriate for the type, intensity and timing of intended use. (OPTIONAL
9 AMENDMENT 2.1 adds next phrase), and sufficiently routes water off of the road surface during
10 any period of intended use⁵.

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12 **Stressing Storm** means a storm that yields at least a Ten Year Flood Flow.⁶

23 ⁵Stable operating surface Option 1 from CGS 10/29/08. This definition separates characteristics
24 of a Stable operating surface from resultant impacts for clarity of definitions. Optional
25 amendment is for further clarifying characteristics of a stable operation g surface. For both
options, the Board's intent is that hauling on a Stable Operating Surface would typically be
permitted with minor puddles (such as those created by road watering during dust abatement during
dry season). However, when the road system has large ponds, this would not be a characteristic
of a stable operating surface.

⁶ Creates definition of "stressing storm," which is a term used in the road rules package.

1 **Watercourse or Lake Transition Line [Optional Amendment 3]**

2 ~~(a) for a watercourse with an unconfined channel (a channel with a valley to~~
3 ~~width ratio at bankfull stage of 4 or greater) means that line defined by the landward~~
4 ~~margin of the most active portion of the channel zone area readily identified in the field~~
5 ~~by riverine hardwood and conifer trees at least twenty five years in age at breast height.~~

6 ~~(b) for a watercourse with a confined channel means that line that is the outer~~
7 ~~boundary of a watercourse's 20-year return interval flood event floodplain. The outer~~
8 ~~boundary corresponds to an elevation equivalent to twice the maximum depth of the~~
9 ~~adjacent riffle at bankfull stage. The bankfull stage elevation shall be determined by~~
10 ~~field indicators and may be verified by drainage area/bankfull discharge relationships.~~

11 The watercourse transition line is the outer boundary of a watercourse's 20-year
12 return interval flood event floodplain as defined by the following: (1) the upper limit of
13 sand and/or silt deposition such as mudlines on trees; and, (2) evidence of recent
14 channel migration and/or flood debris. The first line of permanent woody vegetation
15 must not be used to determine this transition line⁷.

16 ~~(c)~~ For a lake, it is that line closest to the lake where riparian vegetation is
17 permanently established.

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23 ⁷ Watercourse or Lake Transition Line: Optional suggested amendment pending findings from BOF
24 scientific literature review. Amendment deletes existing definitions and redefines based on
25 interagency riparian flood prone area committee's recommendations (Cafferata et al 2005).
Current definitions and it application in the field separates watercourses from their floodplains
which is inconsistent with current literature. The new definition also removes reference to
"confined and unconfined channels which are confusing and difficult use in the field.

1 **Watercourse or Lake Transition Line** [Optional Amendment 3.1 –to be refined by
2 **Literature Review results]** means that line defined by the landward margin of the outer
3 portion of the channel zone. The line corresponds to an elevation equivalent to twice the
4 maximum depth of the adjacent riffle at bankfull stage.

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6 **Watersheds with threatened or ~~impaired values~~ endangered anadromous**
7 **salmonids**⁸ means any planning watershed [Optional Amendment 4] ~~planning watershed~~
8 ~~locations]~~⁹ where populations of anadromous salmonids that are listed as Threatened,
9 endangered, or candidate under the State or Federal Endangered Species Acts ~~with their~~
10 ~~implementing regulations~~, are currently present or can be restored .

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12 **[Optional Amendment 4.1] Watersheds with threatened or endangered**
13 **anadromous salmonids** means any watershed in the official Listed Range of anadromous
14 salmonids species that are listed as Threatened, endangered, or candidate under the State or
15 Federal Endangered Species Acts.¹⁰

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22 ⁸ **Watersheds with threatened or ~~impaired values~~ endangered anadromous salmonids:** Clarifies scope
23 of intent. This change is more in line with the actual application of the T/I rules. Threatened
24 and Impaired is not descriptive of the intent of the regulations as application of the rules do
25 not meet completely meet 303d "impaired" waterbody legal requirements. Deletion of "implementing
regulations adds no legal or other discrete clarification of the geographic scope of the rule.

⁹ Deletion of term "planning watershed" removes any limitation on where the T/I rules could
apply.

¹⁰ Defines application of the T/I rules to the official listed range of the species.

1 **§ 898 Feasibility Alternatives**

2 After considering the rules of the Board and any mitigation measures proposed in the
3 plan, the RPF shall indicate whether the operation would have any significant adverse impact on
4 the environment. On TPZ lands, the harvesting per se of trees shall not be presumed to have a
5 significant adverse impact on the environment. If the RPF indicates that significant adverse
6 impacts will occur, the RPF shall explain in the plan why any alternatives or additional mitigation
7 measures that would significantly reduce the impact are not feasible.

8 Cumulative impacts shall be assessed based upon the methodology described in Board
9 Technical Rule Addendum Number 2, Forest Practice Cumulative Impacts Assessment Process
10 and shall be guided by standards of practicality and reasonableness. The RPF's and plan
11 submitter's duties under this section shall be limited to closely related past, present and
12 reasonably foreseeable probable future projects within the same ownership and to matters of
13 public record. The Director shall supplement the information provided by the RPF and the plan
14 submitter when necessary to ensure that all relevant information is considered.

15 ~~When assessing cumulative impacts of a proposed project on any portion of a waterbody
16 that is located within or downstream of the proposed timber operation and that is listed as water
17 quality limited under Section 303(d) of the Federal Clean Water Act, the RPF shall assess the
18 degree to which the proposed operations would result in impacts that may combine with existing
19 listed stressors to impair a waterbody's beneficial uses, thereby causing a significant adverse
20 effect on the environment. The plan preparer shall provide feasible mitigation measures to
21 reduce any such impacts from the plan to a level of insignificance, and may provide measures,
22 insofar as feasible, to help attain water quality standards in the listed portion of the waterbody.~~

23 ~~The Director's evaluation of such impacts and mitigation measures will be done in
24 consultation with the appropriate RWQCB.¹¹~~

25 ¹¹ 898 Section deleted and revised in 916.12 for purposes of consolidating plan requirements for
303 (d)listed water bodies

1 **916, 936, 956 Intent of Watercourse and Lake Protection [All Districts]**

2 The purpose of this article is to ensure that timber operations do not threaten to cause
3 significant adverse site-specific and cumulative impacts to the beneficial uses of water, native
4 aquatic and riparian-associated species, and the beneficial functions of riparian zones are
5 protected from potentially significant adverse site-specific and cumulative impacts associated
6 with timber operations, or threaten to cause violation of any applicable legal requirements.¹²

7 This article also provides protection measures for application in watersheds with threatened and
8 endangered anadromous salmonids and an evaluation framework for application in watersheds
9 listed as water quality limited under Section 303(d) of the Federal Clean Water Act.¹³

10 It is the intent of the Board to restore, enhance, and maintain the productivity of timberlands
11 while providing ~~equal~~ appropriate levels of consideration for the quality and beneficial uses of
12 water relative to timber production.¹⁴

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15 ¹² **916** Issue: Consistency with water board legal requirements

16 1. Porter-Cologne subjects discharges that COULD (not will or would) affect the State's waters to Water Board regulation (CWC 13260(a)(1)).

17 2. It directs other State agencies to comply with State Water Board-approved water quality control plans (CWC 13247).

18 3. It also directs other State agencies to comply with State Water Board-adopted water quality control Policies (CWC 13146), including:

19 1) Resolution no. 88-63: Sources of Drinking Water Policy and

20 2) Resolution no. 68-16: Policy With Respect to Maintaining High Quality of Waters in California.

21 4. The latter Policy must be applied in a manner consistent with the federal antidegradation policy (40 CFR 131.12) under the Clean Water Act.

22 5. The additions at the end of the paragraph are needed because only a Water Board can determine, after making specified findings, that any degradation of water quality is acceptable. CalFire is not authorized to do this, even if CalFire believes the impact is not "significant" under CEQA.

23 6. The Water Board standards of review and environmental goals under the antidegradation policies and CWA 303(d) are more rigorous and less flexible than CEQA's "no significant avoidable impact" standard.

24 ¹³ **916**

25 Issue: Clarity o specific purposes of this section. Language is added to clarify that the intent of this section is to address requirements for TES listed species and 303(d) listed water bodies.

¹⁴ **916 Issue:** Consistency with water board, laws and policies. Issue: Compliance with the State and federal antidegradation policies for waterbodies not impaired.1. This intent section is not intended to deal only with waters that are not 303(d)-listed, but to provide broad statewide guidance for all situations (including those with impairment).2. Amendment supports proposed amendments made to section 916 (c) below.

1 Further, it is the intent of the Board to clarify and assign responsibility for recognition of
2 potential and existing impacts of timber operations on watercourses and lakes, native aquatic
3 and riparian-associated species, and the beneficial functions of riparian zones and to ensure
4 ~~adoption~~ all harvesting plans ¹⁵ of feasible measures to effectively achieve compliance with this
5 article. Further, it is the intent of the Board that the evaluations that are made, and the
6 measures that are taken or prescribed, be documented in a manner that clearly and accurately
7 represents those existing conditions and those measures. "Evaluations made" pertain to the
8 assessment of the conditions of the physical form, water quality, and biological characteristics of
9 watercourses and lakes, including cumulative impacts affecting the beneficial uses of water on
10 both the area of planned logging operations and in the Watershed Assessment Area (WAA).
11 "Measures taken" pertain to the procedures used or prescribed for the restoration,
12 enhancement, and maintenance of the beneficial uses of water.

23 ¹⁵ 916 Issue: Clarity of meaning of "adoption"

24 Issue: Consistency with the purposes of the CESA.
25 The phrase "adoption of" is unclear regarding the means by which the Board intends to achieve the
objectives described. The proposed change clarifies that harvesting plans must comply with the
stated objectives.

1 All provisions of this article shall be applied in a manner, which complies with the following:

2 (a) During and following timber operations, ~~the beneficial uses of water,~~ native aquatic
3 and riparian-associated species, and the beneficial functions of riparian zones shall be
4 maintained where they are in good condition, and protected where they are threatened, and
5 insofar as feasible, native aquatic and riparian-associated species shall be restored where
6 they are impaired. [Optional Amendment 5:] Where beneficial uses of water are impaired,
7 timber operations shall actively contribute toward their restoration.¹⁶ [Optional Amendment
8 **6:]**¹⁷ Plan submitters are encouraged, but not required, to undertake additional measures
9 which could be undertaken at the plan submitters' option to further restore and enhance
10 beneficial uses of water which are impaired.

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18 ¹⁶ 916 (a) Issue: Clarification of differing restoration requirements for beneficial uses of
water.

19 1. Timber operations are generally accountable for actively contributing toward restoration, not
20 to achieving it all by themselves.

21 2. This requirement is not limited to what might be "feasible" according to 895.1

22 This amendment to include the term "restoration" is "optional". The Board's decisions to include
it or exclude it is dependant on 1) legal opinion of Board authorities for including
23 "restoration" in the FPRs and 2) a Board policy decision on extent to which they want to include
restoration as a goal of the FPRS.

24 ¹⁷ This amendment is "optional" and dependant on legal opinion on BOF authorities for including
"restoration" in the FPRs. The amendment modifies the requirement to "actively restore"
25 beneficial uses to optional restoration consistent with FPR rule language used in section 913.10
(d).

1 (b) Maintenance, pProtection, [Optional Amendment 7]¹⁸ and restoration of the quality and
2 beneficial uses of water during the planning, review, and conduct of timber operations shall
3 comply with all applicable legal requirements including those set forth in any applicable water
4 quality control plan or water quality control Policy adopted or approved by the State Water
5 Resources Control Board, as these are typically interpreted and applied by the affected regional
6 water quality control board. ¹⁹

7 At a minimum, the LTO shall not do either of the following during timber operations:-

8 ~~(1) Place, discharge, or dispose of or deposit in such a manner as to permit to pass into~~
9 ~~the waters of the state, any substances or materials, including, but not limited to, soil, silt, bark,~~
10 ~~slash, sawdust, or petroleum, in quantities deleterious to fish, wildlife, beneficial functions of~~
11 ~~riparian zones, or the quality and beneficial uses of water;~~

12 ~~(2) Remove water, trees or large woody debris from a watercourse or lake, the adjacent~~
13 ~~riparian area, or the adjacent flood plain in quantities deleterious to fish, wildlife, beneficial~~
14 ~~functions of riparian zones, or the quality and beneficial uses of water.~~ ²⁰

19 ¹⁸ The amendment to include the term "restoration" is "optional". The Board's decisions to
20 include it or exclude it is dependant on 1) legal opinion of Board authorities for including
"restoration" in the FPRs and 2) a Board policy decision on extent to which they want to include
restoration as a goal of the FPRS.

21 ¹⁹ 916 (b)

22 Issue: Consistency with water board, laws and policies.

23 1. Terms added are consistent with water board, laws and policies that require State agencies to
comply with State Water Board-adopted water quality control Policies (CWC 13146).

24 2. The last addition precludes "creative" interpretations of Water Board requirements by other
parties.

25 ²⁰ 916 (b) (1) and (2)

Issue: Redundancy with 916.3 and 916.92. Existing subsection 916 (b) (1) is redundant with 916.3
and should be deleted. Section 916 (b) (2) is redundant to requirements in 916.9 (a)

1 **[Optional Amendment 8]** ²¹(c) Protecting and restoring native aquatic and riparian-associated
2 species, and the beneficial functions of riparian zones and the quality and beneficial uses of
3 water shall be given equal consideration as a management objective within any prescribed
4 WLPZ and within any ELZ or EEZ designated for watercourse or lake protection and any other
5 location where operations may affect riparian zones or the quality and beneficial uses of
6 water.²² **[Optional Amendment 9]** ²³Where the quality and beneficial uses of water are
7 currently in good condition, maintaining that condition shall be given equal consideration as a
8 management objective relative to timber production. Where any beneficial use of water is
9 currently is threatened or exceptionally valuable, protecting its current condition shall be given
10 equal or greater consideration as a management objective. Where any beneficial use of water
11 is currently impaired, its restoration shall be given greater consideration as a management
12 objective than timber production, and timber operations shall be conducted in a manner that
13 actively contributes to its recovery.

14 **(d)** The measures set forth in this Section are meant to enforce the public's historical and legal
15 interest in protection for wildlife, fish, and water quality and are to be used to guide timberland
16 owners in meeting their legal responsibilities to protect public trust resources.

17 ²¹ 916 (c) These amendments are "optional" and could be deleted in its entirety. The section is
18 redundant to other portions of section 916.

19 ²² **916(c)** Issue: Additional consideration for protection measures needed for areas outside of
20 riparian zones that may adversely impact riparian zones.

21 1. Operations on areas outside of WLPZ, ELZ, or EEZ may have substantial effects on aquatic and
22 riparian habitat, such as through contribution to slope failures. Plans should give equal
23 consideration to aquatic and riparian habitats regardless of the location of operations.

24 ²³ **916 (c)** Issue: Consistency with water board, laws and policies.

25 1. The first sentence leads toward compliance with the State and federal antidegradation
policies.
2. The second sentence leads toward compliance with water quality standards and sets forth a
policy reflecting the "first protect the best" (or most critical) habitat (e.g., thermal refugia)
as well as USEPA-designated Outstanding National Resource Waters. 3. The third sentence leads
toward compliance with CWA 303(d) restoration objectives.

The amendment to include the term "restoration" is "optional". The Board's decisions to include
it or exclude it is dependant on 1) legal opinion of Board authorities for including restoration"
in the FPRs and 2) a Board policy decision on extent to which they want to include restoration as
a goal of the FPRS.

1 **916.1, 936.1, 956.1 In Lieu Practices [All Districts]**

2 In rule sections where provision is made for site specific practices to be proposed by the RPF,
3 approved by the Director and included in the THP in lieu of a stated rule, the RPF shall
4 reference the standard rule, shall explain and describe each proposed practice, how it differs
5 from the standard practice, and the specific locations where it shall be applied; and shall explain
6 and justify how the protection provided by the proposed practice is at least equal to the
7 protection provided by standard rule.

8 **(a)** The in lieu practice(s) must provide for the maintenance, protection [Optional
9 **Amendment 10]**²⁴and restoration of the beneficial uses of water, native aquatic and riparian-
10 associated species, and the beneficial functions of riparian zones²⁵ in accordance with 14 CCR
11 916 above, or to the standards of 14 CCR 916.3 [936.3, 956.3] and 916.4(b) [936.4(b),
12 956.4(b)], whichever is greater.²⁶

15 ²⁴ The amendment to include the term "restoration" is "optional". The Board's decisions to
16 include it or exclude it is dependant on 1) legal opinion of Board authorities for including
17 "restoration" in the FPRs and 2) a Board policy decision on extent to which they want to include
18 restoration as a goal of the FPRS.

19 ²⁵ **916.1 and 916.1 (d)** Issue: In-lieu practices often do not achieve the full intent of the FPR
20 to restore, enhance, and maintain aquatic and riparian habitat. 1. While not identified as a
21 component of the Group #1 rules, the language of this section strongly affects the implementation
22 of the regulations. In practice, proposed in-lieu practices often do not achieve the full intent
23 of the FPR to restore, enhance, and maintain aquatic and riparian habitat. The requirement to
24 provide protection at least equal to the standard rule is often only considered with respect to
25 pre-identified erosion control effects. This section is modified to explicitly require protection
of all aquatic and riparian habitat functions. Also, section (d) is added to require adherence
to the standard rule when one or more reviewing agency recommends against the proposed in-lieu
practice.

26 **916.1 (a)** Changes in 916.1 (a) needed for consistency with amendments in 916. Issue:
justification for nonstandard practices: Consider amendments for two different levels of
explanation and justification for nonstandard practices:
1. A minimal level for those nonstandard practices which will actually provide better protection
(or better comply with applicable legal requirements) than the standard practice.
2. A more rigorous level for those that are less protective or arguably could cause violation of
applicable legal requirements. Having two differing levels of justification would provide common
sense timber harvest plan preparation requirements, relieving plan preparers of unnecessary
justifications when better than minimum standards are achieved by the non-standard practice.

1 (b) In lieu practices stated in an approved THP shall have the same enforceability and legal
2 authority as those practices required by the standard rules.

3 (c) Any in lieu practices which propose less than standard rule WLPZ widths for Class I
4 watercourses shall include 14 CCR 916.5.(e) [936.5(e), 956.5(e)] "A" & "D" protection
5 measures.

6 (d) **[Optional Amendment 11]**²⁷ If one or more review agencies recommend against the
7 proposed in-lieu practice and provide substantial evidence supporting the recommendation, the
8 standard rule shall apply and the proposed in-lieu practice shall not be approved.

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25 ²⁷ **916.1** (c) This is an optional amendment for Board policy decision. The amendment is intended to address recognized disagreements over decisions on inclusion of in-lieu practices during THP reviews. A decision for inclusion or exclusion should also consider effects on maintaining CAL Fire's authority as the lead agency for the project.

1 **916.2, 936.2, 956.2 Protection of the Beneficial Uses of Water and Riparian Functions [All**
2 **Districts]**

3 **(a)** The measures used to protect each watercourse and lake in a logging area shall be
4 determined by the presence and condition of the following values:

5 **(1)** The existing and restorable quality and beneficial uses of water as specified by the
6 applicable water quality control plan and as further identified and refined during preparation and
7 review of the plan.

8 **(2)** The existing and²⁸ restorable uses of water for fisheries as identified by the DFG or
9 as further identified and refined during preparation and review of the plan.

10 **(3)** ~~Riparian habitat~~ The beneficial functions of the riparian zone that provides for the
11 biological needs of native aquatic and riparian-associated species as specified in 14 CCR
12 916.4(b) [936.4(b), 956.4(b)] and 14CCR 916.9 [936.9, 956.9] when the plan is in a planning
13 watershed with threatened or endangered anadromous salmonids.²⁹

17 ²⁸ 916.2 (a) (2) Issue: Consistency of terminology

18 1. Term "existing and restorable" (or potential) are used for consistency and to ensure all
19 existing or potential uses, such as future suitable habitat for listed anadromous species, be
20 protected.

21 ²⁹ 916.2 (3)

22 Issue: Consistency of terminology

23 1. Term "beneficial functions of riparian zones" is defined in the FPRs repalces undefined terms
24 such as "riparian habitat". Term "beneficial functions of riparian zones" being amended into
25 other sections for same consistency purpose.

2. If the values of the beneficial functions of riparian zone are different between T/I and non-
T/I areas and adding reference to 916.9 provides additional specificity for which beneficial
functions need to be protected. However staff questions whether there's any difference in the
beneficial functions of a riparian zone (as stated in 916.4 (b)) in a T/I watershed or a non-T/I
watershed.

1 **(4)** Sensitive conditions near watercourses and lakes as specified in 14 CCR 916.4(a)
2 [936.4(a), 956.4(a)].

3 The maintenance, protection, and**[Optional Amendment 12]**³⁰ restoration of Tthese values
4 shall be ~~protected from potentially significant adverse impacts from timber operations and~~
5 ~~restored to good condition, where needed, achieved~~ through a combination of the rules and
6 plan-specific mitigation. The RPF shall propose, and the Director may require, adequate
7 protection of overflow and changeable channels which are not contained within the channel
8 zone.³¹

21 ³⁰ **916.2** (a)(4) This is an optional amendment for Board policy decision. The amendment is
22 intended to address recognized disagreements over decisions on inclusion of in-lieu practices
during THP reviews. A decision for inclusion or exclusion should also consider effects on
maintaining CAL Fire's authority as the lead agency for the project

23 ³¹ **916.2** Issue: Consistency with water board, laws and policies.

24 The "maintenance", and "restoration" terms are added pursuant to the Water Board standards of
review and environmental goals under the antidegradation policies and CWA 303(d). These are more
25 rigorous and less flexible than CEQA's "no significant avoidable impact" standard.

1 (b) The State's waters are grouped into four classes based on key beneficial uses. These
2 classifications shall be used to determine the appropriate ~~minimum~~ protection measures to be
3 applied during the conduct of timber operations. The basis for classification (characteristics and
4 key beneficial uses) are set forth in 14 CCR 916.5 [936.5, 956.5], Table 1 and the range of
5 ~~minimum~~ appropriate³² protective measures applicable to each class are contained in 14 CCR
6 916.3 [936.3, 956.3], 916.4 [936.4, 956.4], and 916.5 [936.5, 956.5].and 916.9 [936.9, 956.9]
7 when the plan is in a planning watershed with threatened or endangered anadromous
8 salmonids.³³

23 ³² **916.2 (b) and (c)** Issue: Clarity of term "appropriate minimum".1. Use of the term
24 "appropriate minimum" is a confusing double descriptor. "Appropriate" is all that is needed to
allow review of the proposed mitigations. By eliminating term "minimum", standards are only
defined as appropriate, and can be more or less in the standards stated FPRs.

25 ³³ **916.2 (b) and (c)** Issue: Consistency of application of T/I rules. Reference to 916.9 adds the
T&E fish rules to the list of appropriate protection measures.

1 (c) When the protective measures contained in 14 CCR 916.5 [936.5, 956.5] and 916.9
2 [936.9, 956.9] when the plan is in a planning watershed with threatened or endangered
3 anadromous salmonids or pursuant to 14 CCR 916.12, are not adequate to provide for
4 maintenance, protection **[Optional Amendment 13]**³⁴, or restoration to of beneficial uses,
5 feasible such measures as are necessary and sufficient to achieve these goals shall be
6 developed by the RPF or proposed by the Director under the provisions of 14 CCR 916.6
7 [936.6, 956.6], Alternative Watercourse and Lake Protection, and incorporated in the plan when
8 approved by the Director .³⁵

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18 ³⁴ **916.2 (c)** This is an optional amendment for Board policy decision. The amendment is intended
19 to address recognized disagreements over decisions on inclusion of in-lieu practices during THP
20 reviews. A decision for inclusion or exclusion should also consider effects on maintaining CAL
21 Fire's authority as the lead agency for the project

22 ³⁵ **916.2 (c)**

23 Issue: Removal of "feasibility"

24 Issue: Consistency with 916 amendments

25 Issue: Justification for nonstandard practices providing greater protection.

Under Water Board standards of review, the appropriate measures are those which are necessary and sufficient to achieve the desired goal, not just those that are "feasible".

1 **916.9, 936.9, 956.9 Protection and Restoration of the Beneficial Functions of the Riparian**
2 **Zone in Planning Watersheds with Threatened or ~~Impaired Values~~ Endangered**
3 **Anadromous Salmonids[All Districts]**

4
5 In addition to all other district Forest Practice Rules, the following requirements shall apply in
6 any ~~p~~Planning ~~w~~Watershed with ~~t~~Threatened or ~~impaired values~~Endangered Anadromous
7 Salmonids:³⁶

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21 ³⁶ 916.9

22 Issue: Clarity of which beneficial uses are intended to be protected.

23 1. New title and preamble clarifies that the focus of this section are goals and regulations for
24 watersheds with threatened or endangered anadromous salmonids, disconnecting section from rules
25 and regulations to meet requirements for 303D listed impaired watersheds.

2. Term "beneficial function of riparian zone" is added as this is a defined term in the FPRs
and provides uniformity for board's intention on which beneficial uses are to be protected

1 (a) GOAL - Every timber operation shall be planned and conducted to prevent deleterious
2 interferencesignificant impacts to with the watershed conditions that primiliarly limit the values
3 set forth in 14 CCR 916.2 [936.2, 956.2](a) the primary limiting factor that affect threatened or
4 endangered anadromous salmonid species in the planning watershed-(e.g., sediment load
5 increase where sediment is a primary limiting factor; thermal load increase where water
6 temperature is a primary limiting factor; loss of instream large woody debris or recruitment
7 potential where lack of this value is a primary limiting factor; substantial increase in peak flows
8 or large flood frequency where peak flows or large flood frequency are primary limiting factors).
9 To achieve this goal, every timber operation shall be planned and conducted to meet the
10 following objectives where they affect a primary limiting factor:³⁷

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19 ³⁷ 916.9 (a)

20 Issue: Consistence with CEQA.

21 Issue: Clarity and specificity on which values are intended to be protected

22 1. For consistence with CEQA, the term "deleterious interference" is a deleted.

23 2. For clarity with the language used in the other goals in this section, the reference to
24 values in 916.2 is deleted. The values in 916.2 are not necessarily related to fisheries. This
25 section should be clear about the strategy for protecting listed fish.

3 A definition for "primary limiting factor" will be needed with the additional of the term being
proposed.

1 (1) Comply with the terms of a Total Maximum Daily Load (TMDL) that has been
2 adopted to address primary limiting factors that may be affected by timber operations. ~~if a TMDL~~
3 ~~has been adopted,, or not result in any measurable sediment load increase to a watercourse or~~
4 ~~lake.~~³⁸

5 (2) Not result in any significant sediment load increase to a watercourse system or
6 lake³⁹.

13 ³⁸ 916.9 (a)(1)

14 Issue: Consistency of intent language.

15 Issue: Eliminate unnecessary/redundant language.

16 Issue: Clarity of goals

17 1.This maintains the consistency of using "limiting factors" as the focus of enhanced fisheries
18 protections. It also implies a restoration goal.

19 2. The first goal should be split since not all TMDLs address sediment

20 ³⁹ 916.9 (a)(2)

21 Issue: Clarity of objectives

22 Issue: Consistence with CEQA; measurability of changes to limiting factors

23 1. A separate objective is created from objective number one above since not all TMDLs address
24 sediment.

25 2. For consistency with CEQA standards, term "measurable" is deleted because with today's
instrumentation measurable sediment increases is not realistic.

1 ~~(2)~~(3) Not result in any ~~measurable~~ significant decrease in the stability of a watercourse
2 channel or of a watercourse or lake bank.

3 ~~(3)~~(4) Not result in any ~~measurable~~ significant blockage of any aquatic migratory routes
4 for anadromous salmonids or listed species.

5 ~~(4)~~(5) Not result in any ~~measurable~~ significant streamflow reductions during critical low
6 water periods except as part of an approved water drafting plan pursuant to 14 CCR 916.9(r)
7 [936.9(r), 956.9(r)].

8 ~~(5)~~(6) Consistent with the requirements of 14 CCR § 916.9(i), 14 CCR § 936.9(i), or 14
9 CCR § 956.9(i); protect, maintain, and restore trees (especially conifers), snags, or downed
10 large woody debris that currently, or may in the foreseeable future, provide large woody debris
11 recruitment needed for instream habitat structure and fluvial geomorphic functions⁴⁰.

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22 ⁴⁰ 916.9 (a)(3)-(5)

23 Issue: Consistence with CEQA; measurability of changes to limiting factors

24 For consistency with CEQA standards, term "measurable" is deleted because with today's
25 instrumentation measurable bank stability, migratory route blockage, and streamlflow reduction is
not realistic.

1 ~~(6)~~⁽⁷⁾ Consistent with the requirements of 14 CCR § 916.9(g), 14 CCR § 936.9(g), or 14
2 CCR § 956.9(g); protect, maintain, and restore the quality and quantity of vegetative canopy
3 needed to:

4 (A) provide shade to the watercourse or lake to maintain daily and seasonal
5 water temperatures within the preferred range for anadromous salmonids or listed species
6 where they are present or could be restored, ~~(B) minimize daily and seasonal temperature~~
7 ~~fluctuations~~ provide a deciduous vegetation component to the riparian zone for aquatic nutrient
8 inputs ~~(C) maintain daily and seasonal water temperatures within the preferred range for~~
9 ~~anadromous salmonids or listed species where they are present or could be restored, and (D)~~
10 ~~provide hiding cover and a food base where needed.~~⁴¹

17 ⁴¹ 916.9 (a)(6)

18 Issue: Eliminate redundant objectives

19 Issues: Refine "shade" Refine "nutrient" objectives based on TAC science findings.

20 1.This addition of temperature controls specific to anadromous salmonids sets a very
21 specific standard for protection or restoration of the vegetative canopy. This only applies to
class I per the reference to 916.9(g)

22 2.The purpose of providing shade in the goal is made specific for supporting anadromous
23 salmonid. This modification is consistent with previous amended goal statement in 916.9 for
focusing the T/I rule on listed anadromous species. By combining the proposed language item 6
(B) and (C) be becomes redundant and are deleted.

24 3.Existing at language for item 6 (C) is a narrow description of vegetative canopy goals
25 This goal should be discussed in the context of the primer section on nutrients and his proposed
in this change to broaden the goal of providing shade.

1 ~~(7)~~(8) Result in no substantial significant increases in peak flows or large flood frequency.⁴²

2 (b) Pre-plan adverse cumulative watershed effects on the populations and habitat of
3 anadromous salmonids shall be considered. The plan shall specifically acknowledge or refute
4 that such effects exist. ~~Where appropriate~~When the proposed timber operations will
5 significantly effect existing cumulative watershed effects, the plan shall set forth measures to
6 effectively reduce such effects.^{43*****}

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19 ⁴² 916.9 (a)(7)

20 Issue: Consistence with CEQA; Clarity of term "substantial" for changes to limiting factors
21 For consistency with CEQA standards, term "substantial" is deleted.

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23 ⁴³ 916.9 (b)

24 Issue: Consistence with CEQA; Clarity of term "Clarity of term "appropriate"
25 For consistency with CEQA standards, term "appropriate" is deleted.

1 (e) Channel zone requirements:

2 (1) There shall be no timber operations within the channel zone with the following
3 exceptions: [**Optional amendment 14**]⁴⁴

4 (A) ~~timber harvesting that is~~ actions directed to improve salmonid habitat
5 through the limited use of the selection or commercial thinning silvicultural methods with review
6 and comment by DFG.

7
8 (B) ~~timber harvesting~~ actions necessary for the construction or reconstruction of
9 approved watercourse crossings.

10 (C) ~~timber harvesting~~ actions necessary for the protection of public health and
11 safety.

12 (D) actions to allow for full suspension cable yarding when necessary to
13 transport logs through the channel zone.

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15 (E) the cutting and removal of Class III watercourses channel zone trees ~~where~~
16 ~~exclusion of timber operations is not~~ unless needed for protection of listed salmonids.

17 (F) actions reviewed by the Department or DFG which seek to correct or
18 remediate adverse impacts to the beneficial uses of water.

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20 ⁴⁴ 16.9(e)(1)(E), KQ#78, Channel zone limitations. The potential problems with the short list of
21 exceptions is magnified if the definition of channel zone is broadened to include adjacent
22 floodplains. The lead-in sentence refers to no timber operations except as specified in (A)-
23 (E). However exceptions (A), (B) and (C) are limited to term timber harvesting which is not
24 defined and can be interpreted to mean just cutting and removal of trees. It would be more
25 appropriate to use the term "actions" that could permit a broader set activities such as
watercourse crossing construction without cutting trees or in-stream debris jam removal upstream
of a county road culvert. Exception (e)(I)(E) needs to be worded that trees located in Class III
channel zones may be cut and removed unless needed to protect listed salmonids. This clarifies
that not all Class III channel zone trees must be retained. One new additional exception (a new
F) is also needed to facilitate watershed improvement or remediation activities such as: removal
of old watercourse crossings or landings, repairing watercourse diversions, stabilizing eroding
channels or channel banks. This change is also needed to aid in compliance with 916.9(o),
addressing active erosion sites.

(2) In all instances where trees are proposed to be felled within the channel zone, a base mark shall be placed below the cut line of the harvest trees within the zone. Such marking shall be completed by the RPF that prepared the plan prior to the preharvest inspection.

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1 ******* (h)** For Class I waters, based on biological characteristics, any plan involving
2 timber operations within the WLPZ shall contain the following information:

3 **(1)** A clear and enforceable specification of how any disturbance or log or tree
4 cutting and removal within the Class I WLPZ shall be carried out to conform with 14 CCR §§⁴⁵
5 916.2 [936.2, 956.2](a) and 916.9 [936.9, 956.9](a).

6 **(2)** A description of all existing permanent logging road watercourse crossings, ~~Class~~
7 ~~I waters by logging roads and~~

8 **(3)** ~~e~~Clear specification regarding how these crossings are to be modified, used, and
9 treated to minimize risks, giving special attention to allowing fish to pass both upstream and
10 downstream during all life stages.

11 **(3)(4)** Clear and enforceable specifications for construction and operation of any new
12 crossing of Class I waters to prevent direct harm, habitat degradation, water velocity increase,
13 hindrance of fish passage, or other potential impairment of beneficial uses of water. *********⁴⁶

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24 ⁴⁵ **(h) (1)**: section symbol correction.

25 ⁴⁶ 916.9 (h)(2)-(4): changes made for consistency with Road Rules Committee (RRC)
recommendations. Refer to RRC proposed 923.10 (j)(1) dated 10/22/07

1 **(k) Year-Round Logging Road, Landing and Tractor Road Use Limitations**

2 ~~From October 15 to May 1, the following shall apply: (1)no timber operations shall take place~~
3 ~~unless the approved plan incorporates a complete winter period operating plan pursuant to 14~~
4 ~~CCR § 914.7(a) [934.7(a), 954.7(a)], (2)unless the winter period operating plan proposes~~
5 ~~operations during an extended period with low antecedent soil wetness, no tractor roads shall~~
6 ~~be constructed, reconstructed, or used on slopes that are over 40 percent and within 200 feet of~~
7 ~~a Class I, II, or III watercourse, as measured from the watercourse or lake transition line,² and~~
8 ~~operations of trucks and heavy on logging roads and landings shall be limited to those with a~~
9 ~~stable operating.~~

10 **(1) Logging roads, landings or tractor roads shall not be used when visibly turbid**
11 **water from the road, landing or tractor road (skid trail) or an inside ditch associated with the**
12 **logging road, landing or tractor road may reach a watercourse or lake in amounts sufficient to**
13 **cause a turbidity increase in Class I, II, III or IV waters.⁴⁷**

14 **(2) Log hauling on logging roads and landings shall be limited to those with a stable**
15 **operating surface and in conformance with (1) above.⁴⁸**

16 **(3) Concurrent with use for log hauling, approaches to logging road watercourse**
17 **crossings shall be treated for erosion control as needed to minimize soil erosion and sediment**
18 **transport and to prevent the discharge of sediment into watercourses and lakes in quantities**
19 **deleterious to the beneficial uses of water⁴⁹.**

20 _____
21 ⁴⁷ 916.9 (k) (1): This amendment reintroduces the specifications and descriptions of resultant
22 impacts that must be avoided that were deleted from the " stable operating surface definition"
23 amendment. Implied in this subsection, is a board finding that some logging operations, such as
24 skidding on landings on roads, are permitted where saturated soils are found i as long as turbid
25 water does not reach watercourse.

23 ⁴⁸ 916.9 (k) (2):This amendment reintroduces the specifications and descriptions of resultant
24 impacts that must be avoided that were deleted from the " stable operating surface definition"
25 amendment. The amendment prohibits log hauling where there is not a stable operating surface,
regardless of the potential/risk to impacts of sedimentation to watercourses. Hauling is intended
to be permitted when minor ponding results from dry season road watering during dust abatement.

25 ⁴⁹ 916.9 (1)(3)This new measure expands area of protection within T or I watersheds as needed to
avoid adverse discharge. It is also an attempt by the RR Committee to address concerns embedded

1 **(4) Concurrent with use for log hauling, all traveled surfaces of logging roads in a WLPZ**
2 **or within any ELZ or EEZ designated for watercourse or lake protection shall be treated for**
3 **erosion control as needed to minimize soil erosion and sediment transport and to prevent the**
4 **discharge of sediment into watercourses and lakes in quantities deleterious to the beneficial**
5 **uses of water.**⁵⁰

6 **(5) Grading to obtain a drier running surface more than one time before reincorporation**
7 **of any resulting berms back into the road surface is prohibited.**

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22 in 923.9.2(f)(5) specified as default protection measure in coho watersheds where DFG has
determined take will or is likely to result.

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24 ⁵⁰ 916.9 (1)(4) This section would delete 916.9(n)(2) Adds qualifying linkage "as needed" and "in
quantities deleterious to the beneficial uses of water". This appears to be a less restricted
25 standard than is currently contained in 916.9 n) (2) where treatment is needed to "prevent
waterborne transport of sediment..." and is not qualified by with term such as deleterious amounts.

1 ~~(l) Construction or reconstruction of logging roads, tractor roads, or landings shall not take place~~
2 ~~during the winter period unless the approved plan incorporates a complete winter period~~
3 ~~operating plan pursuant to 14 § CCR 914.7(a) [934.7(a), 954.7(a)] that specifically address such~~
4 ~~road construction . Use of logging roads, tractor roads, or landings shall not take place at any~~
5 ~~location where saturated soil conditions exist, where a stable logging road or landing operating~~
6 ~~surface does not exist, or when visibly turbid water from the road, landing, or skid trail surface or~~
7 ~~inside ditch may reach a watercourse or lake. Grading to obtain a drier running surface more~~
8 ~~than one time before reincorporation of any resulting berms back into the road surface is~~
9 ~~prohibited.~~

10 From October 15 to May 1, the following shall apply:

11 (1) No timber operations shall take place unless the approved plan incorporates a
12 complete winter period operating plan pursuant to 14 CCR § 914.7(a) [934.7(a), 954.7(a)], that
13 specifically addresses, where applicable, proposed logging road , landing or tractor road
14 construction, reconstruction or use. Where logging road watercourse crossing construction or
15 reconstruction is proposed an implementation schedule shall be specified.⁵¹

16 (2) Unless the winter period operating plan proposes operations during an extended
17 period with low antecedent soil wetness, no tractor roads shall be constructed, reconstructed, or
18 used on slopes that are over 40 percent and within 200 feet of a Class I, II, or III watercourse,
19 as measured from the watercourse or lake transition line., and

20 (3) Logging roads, landings and tractor roads shall not be used when sediment from the
21 logging road, landing or tractor road surface is transported to a watercourse or a drainage
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24 ⁵¹ 916.9 (l) (1): Amendments incorporate deleted section of 916.9 (k) for purposes of
25 consolidating all operational requirements for winter logging. Other changes to those deleted
form 916.9 (k) are made for consistency with Road Rules Committee (RRC) recommendations. Refer to
RRC proposed 923.4 (r), 923.6 (i) (6) and 923.13(m) dated 10/22/07. These RRC recommendations meld
two overlapping requirements found in (916.9 (K) and (l): w with inter operating plan for road
construction and reconstruction conducted during the late fall and early spring.

1 facility that discharges into a watercourse in amounts sufficient to cause a visible increase in
2 turbidity in Class I, II, III, or IV waters.

3 (4) Logging roads and landings shall not be used for log hauling when saturated soil
4 conditions result in the visible increase in turbidity specified in (3) above.

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1 (n) Within the WLPZ, and within any ELZ or EEZ designated for watercourse or lake
2 protection, treatments to stabilize soils, minimize soil erosion, and prevent the discharge of
3 sediment into watercourses or lakes in amounts deleterious to aquatic species or the quality and
4 beneficial uses of water, or that threaten to violate applicable water quality requirements, shall
5 be described in the plan as follows: ~~applied in accordance with the following standards:~~

6 ~~(1) — The following requirements shall apply to all such treatments.~~

7 ~~(A) — They shall be described in the plan.⁵²~~

8 ~~(B) — For areas disturbed from May 1 through October 15, treatment shall be~~
9 ~~completed prior to the start of any rain that causes overland flow across or along the disturbed~~
10 ~~surface.⁵³~~

11 ~~(C) — For areas disturbed from October 15 to May 1, treatment shall be~~
12 ~~completed prior to any day for which a chance of rain of 30 percent or greater is forecast by the~~
13 ~~National Weather Service or within 10 days, whichever is earlier.⁵⁴~~

14 **[Optional Amendment 16]** ~~(2) The traveled surface of logging roads shall be treated to~~
15 ~~prevent waterborne transport of sediment and concentration of runoff that results from timber~~
16 ~~operations.⁵⁵~~

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23 ⁵² 916.9 (n) (1)(A) deleted and rewritten for brevity in section(n).

24 ⁵³ 916.9(n)(1) (B) moved to section 916.9 (n)(5) for organizational clarity.

25 ⁵⁴ 916.9(n)(1) (c) moved to section 916.9 (n)(6) for organizational clarity with no changes.

⁵⁵ 916.9 (n)(2)Optional amendment 16 deletes this section. Portions of the requirements of this section are reintroduced in 916.9 (k)(4)

1 ~~(3)(1)~~ The treatment for other disturbed areas, including: Soil stabilization is required

2 for:

3 (A) ~~a~~Areas exceeding 100 contiguous square feet where timber operations have
4 exposed bare soil,²

5 (B) ~~a~~Approaches to tractor road watercourse crossings between the drainage
6 facilities closest to the crossing,²

7 (C) ~~r~~Road cut banks and fills, and

8 (D) ~~a~~Any other area of disturbed soil that threatens to discharge sediment into
9 waters in amounts deleterious to the quality and beneficial uses of water,²

10 (2) Soil stabilization treatment measures may include, but need not be limited to,
11 removal, armoring with rip-rap, replanting, mulching, rip-rapping, grass seeding, installing
12 commercial erosion control devices to manufacturer's specifications, or chemical soil stabilizers.

13 ~~Where straw, mulch, or slash is used, the minimum coverage shall be 90%, and any treated~~
14 ~~area that has been subject to reuse or has less than 90% surface cover shall be treated again~~
15 ~~prior to the end of timber operations. The RPF may propose alternative treatments that will~~
16 ~~achieve the same level of erosion control and sediment discharge prevention.~~

17 ~~(4) Where the undisturbed natural ground cover cannot effectively protect beneficial~~
18 ~~uses of water from timber operations, the ground shall be treated by measures including, but not~~
19 ~~limited to, seeding, mulching, or replanting, in order to retain and improve its natural ability to~~
20 ~~filter sediment, minimize soil erosion, and stabilize banks of watercourses and lakes.~~⁵⁶

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25 ⁵⁶ 916.9 (n)(1) and (2)–sections were renumbered for organization. Subsection (2) is amended per RRC recommendations to include a suite of more contemporary soil stabilization tools. Deleted sections of existing rule section 916.9 (n) (3)and (4) are reintroduced in 916.9 (n) (3) and (7) for organization (with modifications).

1 **(3)** Where straw mulch is used, the minimum straw coverage shall be 90 percent, and
2 any treated area that has been reused or has less than 90 percent surface cover shall be
3 treated again by the end of timber operations.

4 **[Optional amendment 17]** (4) Where slash mulch is used, the minimum slash coverage
5 shall be 90 percent, or 75 percent where the slash is packed into the ground surface through the
6 use of a tractor or equivalent piece of heavy equipment.⁵⁷

7 **(5)** For areas disturbed from May 1 to October 15, treatment shall be
8 completed prior to the start of any rain that causes overland flow across or along the disturbed
9 surface.⁵⁸ **[Optional Amendment 18]** that could deliver sediment into a watercourse or lake in
10 quantities deleterious to the beneficial uses of water.⁵⁹

22 ⁵⁷ 916.9 (n) (4)—Optional amendment to reduce coverage requirement for slash to 75%. Reduced
23 coverage to 75% for areas slash-packed by heavy equipment is suggested by RRC. Information
validating this recommendation is needed.

24 ⁵⁸ 916.9 (n) (5) Moves section 916.9 (n) (1)(B) to (n) (5) for better organization and section is
25 amended to make similar to other descriptions of date requirements (changing word "through" to
"to").

⁵⁹ 916.9 (n) (5) Optional Amendment 18 requires that necessary treatments pertain to flows that
could reach watercourses in deleterious quantities, not just any flows.

1 (6) For areas disturbed from October 15 to May 1, treatment shall be
2 completed prior to any day for which a chance of rain of 30 percent or greater is forecast by the
3 National Weather Service or within 10 days, whichever is earlier.⁶⁰

4 [Optional Amendment 19] (7) Where the natural ability of ground cover is
5 inadequate to protect beneficial uses of water by minimizing soil erosion or by filtering sediment,
6 the plan shall specify protection measures to retain and improve the natural ability of the ground
7 cover to filter sediment and minimize soil erosion.⁶¹

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25 ⁶⁰ 916.9 (n) (6)moved with no changes from section 916.9(n)(1) (c)for reorganizational clarity.
⁶¹ 916.9 (n)(7) is a new statewide rule recommend by the RRC. No Necessity or justification provided.

1 (o) As part of the plan, the RPF shall:

2 (1) identify active erosion sites in the logging area where erosion and sediment
3 production are ongoing during any period of the year and which pose significant risks to the
4 beneficial uses of water⁶².

5 (2) assess those sites identified in 14 CCR
6 916.9 (o) (1) to determine whether feasible remedies exist is.

7 3) and address in the planned feasible remediation for all sites that pose
8 significant risks to the beneficial uses of water. For sites that pose significant risks to the beneficial
9 uses of water and where feasible remedies exist, the plan shall propose appropriate
10 treatment.⁶³

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25 ⁶² 916.9 (o)(1) -- Term active erosion is not defined in the current rules and is deleted.
The term was redefined in this section to mean erosion and sediment production during any time of
year.

⁶³ 916.9 (o) --Reorganized for clarity. No substantive prescriptive changes made.

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2 (r) **Optional Amendment 20 (DFG)**⁶⁴ Water drafting for timber operations from
3 within a channel zone of a natural watercourse or from a lake shall conform with the following
4 standards:

5 (1) ~~The RPF shall incorporate into the THP~~ Comply with Fish and Game Code
6 Section 1600, et seq.:

7 (2) Follow a water drafting plan provided in the THP that includes:

8 (A) ~~a~~ A description and map of proposed water drafting locations,

9 (B) ~~†The watercourse or lake classification at each drafting site, and~~

10 (C) ~~†The general drafting location-use parameters for each site (i.e.,~~

11 ~~yearly seasonal~~ timing, estimated total volume needed per day, estimated total uptake

12 maximum instantaneous drafting rate and filling time, and associated water drafting activities

13 from other activities and THPs).

14 ~~(2) On Class I and Class II streams where the RPF has estimated that:~~

15 ~~(A) bypass flows are less than 2 cubic feet per second, or~~

16 ~~(B) pool volume at the water drafting site would be reduced by 10%, or~~

17 ~~(C) diversion rate exceeds 350 gallons per minute, or~~

18 ~~(D) diversion rate exceeds 10% of the above surface flow;~~

19 ~~no water drafting shall occur unless the RPF prepares a water drafting plan to be reviewed and,~~

20 ~~if necessary a stream bed alteration agreement issued, by DFG and approved by the Director.~~

21 ~~The Director may accept the project description and conditions portion of an approved~~

22 ~~“Streambed Alteration Agreement” issued under the Fish and Game Code (F&GC 1600 et seq.)~~

23
24
25 ⁶⁴ Changes proposed for consistency with DFG 1600 permitting system and to require drafting requirements for all drafting sites regardless of watercourse classification. Changes are intended to reduce duplicative document and eliminated conflicting drafting standards between the FPR requirements of 916.9 (r) and the FGC 1600 et seq permit requirements.

1 which is submitted instead of the water drafting plan described in 14 CCR § 916.9 [936.9, 956.9]
2 (~~f~~)(2)(D)(1-5).

3 The water drafting plan shall include, but not be limited to:

4 ~~(D) 1. disclosure of e~~ Estimated unimpeded percent streamflow,
5 ~~reduction~~ pumping rate, and duration of reduction,

6 ~~(E) 2. A~~ discussion of the effects of single pumping operations, or
7 multiple pumping operations at the same location, and other locations in the same watershed.

8 ~~(F) 3. A~~ discussion of proposed alternatives and measures and
9 discussion to prevent adverse effects (for example, e.g. reduction in hose diameter; use of
10 gravity fed tanks versus truck pumping; reduction in total intake instantaneous or daily intake at
11 one location; described allowances for recharge time; other dust palliatives; and alternative
12 water drafting locations),

13 ~~(G) 4. conditions~~ A requirement for operators to include keep a an
14 operations log that records for each time water is drafted the kept on the water truck containing
15 the following information: Ddate, Ttime, Ppump Rrate, Ffilling Ttime, starting time, ending time,
16 Screen Cleaned, Screen Conditions, and Bbypass flow observations,

17 ~~(H)~~ The methods to be used to determine source flow prior to
18 operations, and the conditions that will trigger flow to be measured.

19 ~~(I) 5. A requirement a statement by the RPF and operator conduct~~
20 a pre-operations for a pre-operations field review with the operator to discuss the conditions
21 measures in the water drafting plan and Streambed Alteration Agreement.

22 ~~(3)~~ All water drafting shall conform to the following requirements: Intakes shall be
23 screened in Class I and Class II waters. Screens shall be designed to prevent the entrainment
24 or impingement of all life stages of fish or amphibians. Screen specifications shall be included in
25 the plan.

1 (A) All intakes shall be screened. Screens on Class I waters shall be as

2 follows:

3 1. Openings in perforated plate or woven wire mesh screens shall
4 not exceed 3/32 inches (2.38 millimeters). Slot openings in wedge wire screens shall not
5 exceed 1.75 millimeters.

6 2. The screen surface shall have at least 2.33 square feet of
7 openings

8 3. The drafting operator shall actively observe the drafting
9 operation. Pumping shall cease and the screen cleaned if it becomes more than 10 percent
10 obstructed with debris.

11 4. The approach velocity (water moving through the screen) shall
12 not exceed 0.33 feet/second.

13 5. The diversion rate shall not exceed 350 gallons per minute
14 (gpm).

15
16 (B)(4) Approaches and associated drainage structures and facilities to drafting locations
17 within a WLPZ or channel zone shall be surfaced with rock or other suitable material to avoid
18 generation of sediment.

1
2 (r) 916.9 (r) **Optional Amendment 20.1 (Revisions to DFG Option 20)⁶⁵** Water drafting shall
3 not result in significant stream flow reductions during critical low water periods except pursuant
4 to an approved DFG Streambed Alteration Agreement (SAA) or in conformance with 916.9 (r)

5 (3). Water drafting for timber operations from within a channel zone of a natural watercourse or
6 from a natural lake shall:

7 (1) Comply with Fish and Game Code Section 1600, et seq, where applicable.

8 ~~(2) Follow a water drafting plan provided in the THP that includes:~~

9 (1) If the THP proposes water drafting under an approved SAA issued by DFG,
10 the SSA shall be included as an enforceable part of the THP. Supporting information used in
11 review of the SAA may be referenced.

12
13 (2) For new water drafting locations not already permitted, the THP shall
14 contain as part of the SAA notification, the following information:

15
16 (A) A description and map of proposed water drafting locations,

17 (B) The watercourse classification at each drafting site,

18 (C) The drafting parameters for each site (i.e., seasonal timing, estimated
19 total volume needed per day, estimated ~~maximum instantaneous drafting~~ pumping rate and
20 filling time, ~~and associated water drafting activities from other activities and THPs),~~

21 (D) Estimated unimpeded streamflow, ~~pumping rate,~~ and duration of
22 reduction,

23
24
25 ⁶⁵ Optional amendment proposed by P.Ribar. Necessity, purpose and other documentation of impacts
needs to be added.

1 (E) A discussion of the effects of single pumping operations, or multiple
2 pumping operations at the same location, and drafting activities at other locations in the same
3 watershed,

4 (F) A discussion of proposed alternatives and measures to prevent
5 adverse effects (for example, e.g., reduction in hose diameter; use of gravity fed tanks versus
6 truck pumping; reduction in instantaneous or daily intake at one location; described allowances
7 for recharge time; other dust palliatives; and alternative water drafting locations),

8 ~~(G) A requirement for operators to keep a log that records for each
9 time water is drafted the date, time, pump rate, starting time, ending time, and bypass flow
10 observations,~~

11 (G) The methods to be used to determine source flow prior to
12 operations and the conditions that will trigger flow to be measured,

13 (H) A requirement that the RPF, responsible for providing professional
14 advice, and the licensed timber operator conduct a pre-operations field review to discuss water
15 drafting measures in the ~~water drafting plan and the Streambed Alteration Agreement~~SAA.

16 (3) All water drafting shall conform to the following requirements:

17 (A) All intakes shall be screened. Screens on Class I waters shall be as
18 follows:

19 1. Openings in performed plate or woven wire mesh screens
20 shall not exceed 3/32 inches (2.38 millimeters). Slot openings in wedge wire screens shall not
21 exceed 1.75 millimeters.

22 2. The screen surface shall have at least 2.33 square feet of
23 openings.

24 3. The drafting operator shall actively observe the drafting
25 operation. Pumping shall cease and the screen cleaned if it becomes more than 10 percent
obstructed with debris.

1 **(s)** No timber operations are allowed in a WLPZ, or within any ELZ or EEZ designated for
2 watercourse or lake protection, under exemption notices except for:

3 **(1)** ~~H~~auling on existing roads_{7,2}

4 **(2)** ~~R~~oad maintenance_{7,2}

5 **(3)** ~~O~~perations conducted for public safety_{7,2}

6 **(4)** ~~C~~onstruction or reconstruction of approved watercourse crossings_{7,2}

7 **(5)** ~~T~~emporary crossings of dry Class III watercourses which do not require a
8 “Streambed Alteration Agreement” under the Fish and Game Code_{7,2} or

9 **(6)** ~~H~~arvesting recommended in writing by DFG to address specifically identified
10 forest conditions.

11 **(t)** No timber operations are allowed in a WLPZ, or within any ELZ or EEZ designated for
12 watercourse or lake protection, under emergency notices except for:

13 **(1)** ~~H~~auling on existing roads_{7,2}

14 **(2)** ~~R~~oad maintenance_{7,2}

15 **(3)** ~~O~~perations conducted for public safety_{7,2}

16 **(4)** ~~C~~onstruction or reconstruction of approved watercourse crossings_{7,2}

17 **(5)** ~~T~~emporary crossings of dry Class III watercourses which do not require a
18 “Streambed Alteration Agreement” under the Fish and Game Code_{7,2}

19 **(6)** ~~H~~arvesting recommended in writing by DFG to address specifically identified
20 forest conditions_{7,2}

21 **(7)** ~~T~~he harvest of dead or dying conifer trees subject to the following conditions:

22 **(A)** Recruitment of large woody debris****

23 ***** 300 trees per acre. ****

1 *******(y)** The provisions of 14 CCR § 916.9 [936.9, 956.9] Shall not apply to a plan that is
2 subject to an approved Incidental Take Permit Habitat Conservation Plan, Natural Communities
3 Conservation Plan, or Incidental Take Permit that addresses anadromous salmonid
4 protection.⁶⁶*****

5 **[Optional Amendment 21]** The provisions of 14 CCR § 916.9 [936.9, 956.9] shall not
6 apply to a plan where there is:

7 1) a valid incidental take permit issued by DFG pursuant to Section 2081(b) of
8 the Fish and Game Code that addresses anadromous salmonid protection; or

9 (2) a federal incidental take statement or incidental take permit that addresses
10 anadromous salmonid protection, for which a consistency determination has been made
11 pursuant to Section 2080.1 of the Fish and Game Code; or

12 (3) a valid natural community conservation plan approved by DFG under section
13 2835 of the Fish and Game Code; or

14 (4) a valid Habitat Conservation Plan; approved by DFG under section
15 xxxxxxx; or

16 (5) project revisions, guidelines, or take avoidance measures pursuant to a
17 memorandum of understanding or a planning agreement entered into between the plan
18 submitter and DFG, which DFG has determined will avoid take of anadromous salmonids.

19 ***** **(z)** This section shall expire on December 31, 2008.
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22
23 ⁶⁶ This expands the types of permits which are not subject to the T/I rules to include NCCPs and
24 assumes that these State and Federal documents and associated permits that address anadromous
25 salmonid protection would be adequate (based on approved PALCO, Green Diamond and Draft MRC
conservation agreements). Also adds optional amendment language from 916.99.2 9(y) for excluding
projects that have state or federal ITPs or other MOUS and planning agreements with DFG regarding
take.

1 **916.12 [936.12] ~~Section 303(d) Listed Watersheds~~ Protection and Restoration of**
2 **Beneficial Uses of Water Impaired by Sediment, Turbidity or Temperature [All Districts]**

3 For any planning watershed in which timber operations could contribute to the pollutants
4 or stressors which have been identified as limiting water quality in a water body listed pursuant
5 to 303(d) Federal Clean Water Act, the following shall apply: The provisions of this section are
6 intended to achieve consistency with the goals of federal Clean Water Act Section 303(d) and
7 associated federal regulations, as well as with water quality control plans and water quality
8 control policies adopted or approved by the State Water Resources Control Board to implement
9 those federal requirements. In addition to all other district Forest Practice Rules, the following
10 goals and objectives shall apply in any planning watershed in which timber operations can
11 generate discharges that can exacerbate the effect of stressors or pollutants to downstream
12 beneficial uses of water which are already listed pursuant to Clean Water Act Section 303(d) as
13 impaired by sediment, turbidity or temperature.

14 **(a) Goal --** In any planning watershed which contains or drains into waters that have been
15 listed pursuant to Clean Water Act Section 303(d) as being impaired by sediment, turbidity or
16 temperature, the following shall apply, every timber operation shall be planned and conducted to
17 actively contribute toward restoration of beneficial uses of water.

18 **(b) Performance Standards**

19 **(1) Where waters are listed as impaired by sediment or turbidity:**

20 **(A) All logging roads, landings, and tractor roads, all related drainage facilities,**
21 **ditch drains, and erosion controls, and all areas of timber harvesting and site preparation shall**
22 **be, as applicable, designed, constructed, used, maintained and abandoned in a manner which**
23 **minimizes any increase in soil erosion and prevents any increase in sediment discharge into a**
24 **watercourse.**

25 **(B) Watercourse crossings shall be designed, constructed, used, maintained**
and removed in a manner which minimizes, to the degree feasible, erosion from a road, landing,

1 or tractor road prism, from a watercourse crossing, or from the adjacent watercourse channel
2 and which minimizes any increased sediment load in a watercourse. Where any new sediment
3 discharges from drainage structures are likely to reach a watercourse, measures to be used to
4 fully offset any increase in sediment load shall be incorporated into the plan.

5 (2) Where waters are listed as impaired by temperature, in addition to the provisions of
6 (1) above:

7 (A) Temperature increases caused by removal of vegetative canopy shall not be
8 detectable more than ----- feet downstream from the area of timber operations.

9 (B) Waters that are heated above pre-harvest background levels shall not
10 discharge into waters supporting temperature-impaired beneficial uses of water.

11 (c) Implementation - Every timber operation in such a planning watershed shall be planned
12 and conducted to do one of the following:

13 (1) Where a TMDL implementation plan has been adopted by the responsible RWQCB
14 and addresses stressors or pollutants whose effects may be exacerbated discharges from
15 timber operations, comply with the provisions of that plan.

16 (2) For 303(d)-listed waters without a TMDL implementation plan, either:

17 (A) Implement the provisions of a management plan that has been collaboratively
18 developed by the board, department, and the responsible RWQCB pursuant to 14 CCR §
19 916.12.1 [936.12.1]; or

20 (B) Implement the provisions of 14 CCR § 916.12.2 [936.12.2].

1 **916.12.1 [936.12.1] Watershed Management Plans for 303(d)-listed waters**

2 (a) The Department shall do the following, in collaboration with the appropriate RWQCB and
3 SWRCB.

4 (1) ~~p~~Prioritize watersheds in which the following will be done: 1) They will jointly conduct
5 or participate in any ~~further~~ assessment or analysis of the watershed that may be needed, and
6 2) participate in the development of Total Maximum Daily Load (TMDL) problem assessment,
7 source assessment, or load allocation related to timber operations, and 3) if existing rules are
8 deemed to be sufficient, develop recommendations for watershed specific silvicultural
9 implementation, enforcement and monitoring practices to be applied by the Department. They
10 will develop recommendations for watershed-specific forest practices and for enforcement,
11 monitoring and adaptive management practices to be applied by the Department and RWQCB.

12 (2) ~~The Department shall prepare a report setting forth the Department's findings and~~
13 ~~recommendations from the activities identify pursuant to (a) above. Prepare a report setting~~
14 forth a mutually accepted watershed management plan incorporating the findings and
15 recommendations from the activities identified pursuant to (1) above.

16 (b) The report shall be jointly submitted to the Board and the appropriate RWQCB. The report
17 shall be made available to the public upon request and placed on the Boards' website for a 90-
18 day period.

19 (c) ~~Where the Department has recommended that the adoption of watershed specific rules is~~
20 ~~needed, the Board shall consider that recommendation. The Board and the appropriate RWQCB~~
21 shall jointly consider approving or adopting the proposed watershed management plan. If the
22 two boards jointly approve or adopt the watershed management plan, and it includes provisions
23 for watershed specific forest practices, the Board shall consider the watershed management
24 plan as a proposal for rulemaking under the Administrative Procedures Act (Section 11340 et.

25

1 seq. Gov Code) and shall begin that process within 180 days following adoption or approval of
2 the plan.

3 (d) The watershed management plan, including its specific rules shall be developed in
4 collaboration with the landowner(s) or designee(s) with land in the planning watershed(s), and
5 other persons or groups within the watershed, and may also be incorporated into a TMDL
6 implementation plan.

7 (e) The watershed management plan shall remain in effect until the water body has been
8 removed from the 303(d) list, or that the Board finds, after consulting with the appropriate
9 RWQCB, that timber operations are no longer a significant source of the pollutant or stressor
10 that limits water quality in the listed water body.

11 (f) A watershed management plan shall include the following:

12 (1) Statements setting forth: 1) the goal of actively contributing toward restoration of
13 impaired beneficial uses of water and degraded beneficial functions of riparian zones, 2) the
14 priority of such restoration over the goal of maximizing timber production, especially in any
15 WLPZ or in any EEZ or ELZ designated for protection of the quality and beneficial uses of
16 water, and 3) the priority problems to be addressed in the watershed.

17 (2) The water quality and/or aquatic habitat conditions to be achieved and the indicators
18 to be used to trace progress toward attainment, and the expected schedule for attainment.

19 (3) The specific forest practice prescriptions and remedial measures to be applied, and a
20 plan and schedule for implementation.

21 (4) The inspection and monitoring program(s) to be used to ascertain the effectiveness
22 of the prescriptions and measures in achieving both their immediate objectives and in
23 contributing toward restoration of the impaired beneficial uses.

24 (5) An adaptive management program for upgrading or refining prescriptions and
25 measures as shown to be needed by inspection or monitoring programs.

1 **916.12.2 [936.12.2] Measures to facilitate RWQCB permitting in watersheds that contain**
2 **or drain into waters that have been 303(d)-listed as impaired by sediment, turbidity or**
3 **temperature**

4 In watersheds containing or draining into waters the have been listed pursuant to Clean Water
5 Act section 303(d) as being impaired by sediment, turbidity or temperature and where a plan is
6 implementing neither a TMDL implementation plan nor a watershed management plan adopted
7 pursuant to 14 CCR § 916.12.1 [936.12.1], implementation of the following measures, in
8 addition to all other applicable Forest Practice Rules, is required to streamline and facilitate the
9 process of being accepted by a RWQCB as being in compliance with applicable water quality
10 requirements. These measures supplement, and, where conflicting, supercede, the operational
11 practices set forth in 14 CCR § 916.9 [936.9]. These measures shall not apply to a plan which
12 the appropriate RWQCB has already found to be in conformance with applicable requirements
13 set forth in a water quality control plan, waste discharge requirement, or waiver.

14
15 **(a) [Operational practices yet to be determined]**

16 **(b) The effectiveness, as implemented, of all prescribed practices and measures within the plan**
17 **area and appurtenant to proposed operations shall be inspected as follows:**

18 **(1) By the LTO at least twice annually – once between June 1st and October 15th and at**
19 **least once after October 15th following the first storm event producing bankfull stage- prior to**
20 **completion of operations; and**

21 **(2) By the timberland owner during the same time period for the remainder of the**
22 **prescribed maintenance period.**

23 **(3) The inspection shall be started as soon as conditions permit safe access to ensure**
24 **that drainage structures and facilities and erosion control measures are functioning effectively.**

1 (4) Prior to each inspection, the party conducting the inspection shall notify the
2 department and the appropriate RWQCB staff so that, at their discretion, they can participate in
3 the inspection.

4 (5) If the department or RWQCB staff does not participate in the inspection, the
5 inspecting party shall, within 10 days of the inspection date, submit to the department and the
6 appropriate RWQCB an inspection report detailing his/her findings regarding the effectiveness
7 of the prescribed measures. If the inspecting party finds any places where the standards of 14
8 CCR § 916.12 (a) or (b) [936.12 (a) or (b)] are not being achieved, the inspecting party shall
9 propose corrective measures sufficient to achieve these goals and a schedule for completing
10 the corrective work.

11 (A) The proposed corrective measures shall be applied where the volume of sediment
12 prevented from entering a watercourse by additional measures would be greater than that
13 potentially discharged plus that incurred by re-entering the site. With concurrence from the
14 appropriate RWQCB, corrective work may be deferred if it is either unsafe or it is infeasible to
15 conduct the work without discharging more sediment than could be corrected.

16 **916.12.3 [936.12.3] Assessing and Mitigating Cumulative Watershed Effects on Already-**
17 **Impaired Beneficial Uses of Water**

18 (a) When assessing site specific or cumulative impacts of proposed timber operations on
19 303(d)-listed water bodies:

20 (1) The RPF shall:

21 (A) Assess current watershed condition and sensitivity, the existing stressors or
22 pollutants from past natural events, the existing and foreseeable stressors and pollutants from
23 rates of anthropogenic watershed disturbance, and the degree to which discharges from the
24 proposed operations may interact with such stressors or pollutants to further impair a
25 waterbody's beneficial uses;

1 (B) Assume that, absent additional or enhanced measures, discharges from the
2 proposed timber operations will contribute to existing and future cumulative effects unless there
3 is clear evidence to the contrary;

4 (C) Propose additional or enhanced measures that are necessary and sufficient
5 to actively contribute both to improvement of the beneficial uses of water and to attainment of
6 water quality standards in the listed portion of the waterbody.

7 (2) The Director's evaluation of such effects and restoration measures will be done in
8 consultation with the appropriate RWQCB.

9 (b) Both the assessment and the proposed measures may be based on the assessment and
10 measures in a watershed management plan prepared in accordance with 14 CCR § 916.12.1.
11 To the degree that cumulative effect issues are satisfactorily addressed by such watershed
12 management plans, they need not be addressed again by the plan preparer.

13
14 **[OPTIONAL AMENDMENT 22] 916.12.3 [936.12.3] Assessing and Mitigating Cumulative**
15 **Watershed Effects on Already-Impaired Beneficial Uses of Water**

16 When assessing cumulative impacts of a proposed project on any portion of a waterbody
17 that is located within or downstream of the proposed timber operation and that is listed as water
18 quality limited under Section 303(d) of the Federal Clean Water Act, the RPF shall assess the
19 degree to which the proposed operations would result in impacts that may combine with existing
20 listed stressors to impair a waterbody's beneficial uses, thereby causing a significant adverse
21 effect on the environment. The plan preparer shall provide feasible mitigation measures to
22 reduce any such impacts from the plan to a level of insignificance, and may provide measures,
23 insofar as feasible, to help attain water quality standards in the listed portion of the waterbody.
24 The Director's evaluation of such impacts and mitigation measures will be done in consultation
25 with the appropriate RWQCB.

1 **§ 923.3, 943.3, and 963.3 Watercourse Crossings**

2 Watercourse crossing drainage structures on logging roads shall be planned,
3 constructed, reconstructed, and maintained or removed, according to the following standards.
4 Exceptions may be provided through application of Fish and Game Code Sections 1601 and
5 1603 and shall be included in the THP.

6 (a) The location of all new permanent watercourse crossing drainage structures and
7 temporary crossings located within the WLPZ shall be shown on the THP map. If the structure
8 is a culvert intended for permanent use, the minimum diameter of the culvert shall be specified
9 in the plan. Extra culverts beyond those shown in the THP map may be installed as necessary.

10 (b) The number of crossings shall be kept to a feasible minimum.

11 (c) Drainage structures on watercourses that support fish shall allow for unrestricted
12 passage of all life stages of fish that may be present, and shall be fully described in the plan in
13 sufficient clarity and detail to allow evaluation by the review team and the public, provide
14 direction to the LTO for implementation, and provide enforceable standards for the inspector.

15 (d) When watercourse crossings, other drainage structures, and associated fills are
16 removed the following
17 standards shall apply:

18 (1) Fills shall be excavated to form a channel that is as that close as feasible to the
19 natural watercourse grade and orientation, and that is wider than the natural channel.

20 (2) The excavated material and any resulting cut bank shall be sloped back from the
21 channel and stabilized to prevent slumping and to minimize soil erosion. Where needed, this
22 material shall be stabilized by seeding, mulching, rock armoring, or other suitable treatment.

23 (e) All permanent watercourse crossings that are constructed or reconstructed shall
24 accommodate the estimated 100-year flood flow, including debris and sediment loads.

25 **[Optional Amendment 23]**Exceptions may be explained and justified in the plan and approved
by the Director where existing crossings, located in the same physiographic environment, have
remained intact and undamaged following stressing storms.⁶⁷

(f) Permanent watercourse crossings and associated fills and approaches shall be
constructed or maintained to prevent diversion of stream overflow down the road and to
minimize fill erosion should the drainage structure become obstructed. The RPF may propose
an exception where explained in the THP and shown on the THP map and justified how the
protection provided by the proposed practice is at least equal to the protection provided by the
standard rule.

⁶⁷ 923.3 (e) Proposed from RRC with no necessity or justification documentation.

1 (g) ~~Any~~ All new permanent culverts ~~installed on~~ class I watercourses, which meet the
2 criteria of class I waters based on biological characteristics, shall be planned, designed and
3 constructed to allow upstream and downstream passage of fish or listed aquatic species during
4 any life stage and for the natural movement of bedload [**Optional Amendment 24**] ~~to form a~~
5 ~~continuous bed through the culvert~~ and shall require an analysis and specifications
6 demonstrating conformance with the intent of this section and subsection.⁶⁸
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⁶⁸ 923.3 (g) Proposed from RRC with no necessity or justification documentation.

1 **923.9, 943.9, 963.9 Roads and Landings in Watersheds with Threatened or Impaired**
2 **Values Endangered Anadromous Salmonids [All Districts]**

3 In addition to all other district Forest Practice Rules, the following requirements shall
4 apply in any planning watershed with threatened or ~~Impaired Values~~ Endangered Anadromous
5 Salmonids.⁶⁹

6 (a) Where logging road or landing construction or reconstruction is proposed, the
7 plan shall state the location of, and specifications for, logging road and landing abandonment or
8 other mitigation measures to minimize the adverse effects of long-term site occupancy of the
9 road system within the watershed.⁷⁰

10 **[Optional Amendment 25]** (a)Where logging road or landing construction or
11 reconstruction is proposed, the plan shall identify:

- 12 (1) How the proposed operations will fit into the systematic layout pattern.
13 (2) What, if any, offsetting mitigation measures, including but not limited to,
14 abandonment of logging roads and landings, are needed to minimize potential adverse impacts
15 to watersheds from the road system.⁷¹

22 _____
23 ⁶⁹ Name change to be consistent with the actual intent of these rules.

24 ⁷⁰ Rule section modified for specificity to apply to logging roads and
25 landings.

⁷¹ Proposed by RRC Proposed from RRC with no necessity or justification documentation.

1 (b) Unless prohibited by existing contracts with the U.S.D.A. Forest Service or other
2 federal agency, new and reconstructed logging roads shall be no wider than a single-lane
3 compatible with the largest type of equipment specified for use on the road, with adequate
4 turnouts provided as required for safety. The maximum width of these roads shall be specified
5 in the plan. These roads shall be outsloped where feasible and drained with water breaks or
6 rolling dips (where the road grade is inclined at 7 percent or less), in conformance with other
7 applicable Forest Practice Rules.

8 (c) The following shall apply on slopes greater than 50% that have access to
9 a watercourse or lake:

10 (1) Specific provisions of construction shall be identified and described for all new
11 roads.

12 (2) Where cutbank stability is not an issue, roads may be constructed as a full-
13 benched cut (no fill). Spoils not utilized in road construction shall be disposed of in with stable
14 areas with less than 30 percent slope and outside of any WLPZ, EEZ, or ELZ. designated for
15 watercourse or lake protection. The Director, with concurrence from other responsible
16 agencies, may waive inclusion of these measures where the RPF can show that slope
17 depressions and other natural retention and detentions feature are sufficient to controls
18 overland transport of eroded material.

19 (3) ~~Alternatively, Logging roads may be constructed with balanced cuts and fills; if~~
20 ~~properly engineered, or fills may be removed with the slopes recontoured prior to the winter~~
21 ~~period.~~

22 (i) If properly engineered, or.

23 (ii) If fills are removed and the slopes recontoured prior to the winter
24 period.⁷²

25 ⁷² Modifies T or I existing requirements so they apply only to such slopes with access (i.e., requires link) to a watercourse or lake. Other grammatical reorganization also completed with no substantive changes.

1 (d) In addition to the provisions listed under 14 CCR 923.1(e) [943.1(e), 963.1(e)], all
2 permanent or seasonal logging roads with a grade of 15% or greater that extends 500
3 continuous feet or more shall have specific erosion control measures stated in the plan.

4 (e) Where situations exist that elevate risks to the values set forth in 14 CCR 916.2(a),
5 [936.2(a), 956.2(a)] (e.g., road networks are remote, the landscape is unstable, water
6 conveyance features historically have a high failure rate, culvert fills are large) drainage
7 structures and erosion control features shall be oversized, low maintenance, or reinforced, or
8 they shall be removed before the completion of the timber operation. The method of analysis
9 and the design for crossing protection shall be included in the plan.

10 (e) [OPTIONAL AMENDMENT 26]: Where logging road networks are remote or are located
11 where the landscape is unstable, where crossing fills over culverts are large, or where logging
12 road watercourse crossing drainage structures and erosion control features historically have a
13 high failure rate, drainage structures and erosion control features shall be oversized, designed
14 for low maintenance, reinforced, or removed before the completion of the timber operation. The
15 method of analysis and the design for crossing protection shall be included in the plan. ⁷³

16 (f) The provisions of 14 CCR 923.9 [943.9, 963.9] shall not apply to a plan that is subject to
17 an approved Incidental Take Permit Habitat Conservation Plan, Natural Communities
18 Conservation Plan, or Incidental Take Permit that addresses anadromous salmonid
19 protection. ⁷⁴

20 ~~(g) This section shall expire on December 31, 2007.~~

21
22
23 ⁷³ Clarifies the criteria to be used (eliminates reference to specified values in 916.2(a) and
24 examples). Also clarifies that the methods of correction are stand alone options (not additive)

25 ⁷⁴ This expands provisions of 923.9(f) to include NCCPs and assumes that these State and Federal
documents and associated permits that address anadromous salmonid protection would be adequate
(based on approved PALCO, Green Diamond and Draft MRC conservation agreements). See edits to
916.9 (y) for other option related to language used in 916.9.1 of the coho itp rules.