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### **Board of Forestry and Fire Protection**

#### "Vegetation Treatment in the Watercourse & Lake Protection Zone"

#### Title 14 of the California Code of Regulations

Division 1.5, Chapter 4,

Subchapter 4, 5, & 6

§ 916.3, 936.3, 956.3 General Limitations Near Watercourses, Lakes, Marshes, Meadows and Other Wet Areas [All Districts]

The quality and beneficial uses of water shall not be unreasonably degraded by Timber Operations. During Timber Operations, the Timber Operator shall not place, discharge, or dispose of or deposit in such a manner as to permit to pass into the water of this state, any substances or materials, including, but not limited to, soil, silt, bark, Slash, sawdust, or petroleum, in quantities deleterious to fish, wildlife, or the quality and beneficial uses of water. All provisions of this article shall be applied in a manner which complies with this standard.

- (a) When there is reasonable expectation that Slash, debris, soil, or other material resulting from Timber Operations, falling or associated activities, will be deposited in Class I and Class II waters below the Watercourse or Lake Transition Line or in Watercourses which contain or conduct Class IV water, those harvest activities shall be deferred until equipment is available for its removal, or another procedure and schedule for completion of corrective work is approved by the Director.
- **(b)** Accidental depositions of soil or other debris in lakes or below the Watercourse or Lake Transition Line in waters classed I, II, and IV shall be removed immediately after the deposition or as approved by the Director.

- **(c)** The Timber Operator shall not construct or use tractor roads in Class I, II, III or IV Watercourses, in the WLPZ, marshes, wet meadows, and other wet areas unless explained and justified in the plan by the RPF, and approved by the Director, except as follows:
- (1) At prepared tractor road crossings as described in 14 CCR §§ 914.8(b), 934.8(b), 954.8(b).
  - (2) Crossings of Class III Watercourses that are dry at the time of use.
- (3) At new and existing tractor road crossings approved as part of the Fish and Game Code process (F&GC § 1600 et seq.).
  - (4) As provided in Section 916.13.
- (d) Vegetation, other than commercial species, bordering and covering meadows and wet areas shall be retained and protected during Timber Operations unless explained and justified in the THP and approved by the Director. Soil within the meadows and wet areas shall be protected to the maximum extent possible.
- (e) Trees cut within the WLPZ shall be felled away from the Watercourse by pulling or other mechanical methods if necessary, or controlled by felling equipment if operating in the WLPZ per Section 916.13, in order to protect the residual vegetation in the WLPZ. Exceptions may be proposed in the THP and used when approved by the Director.
- **(f)** Where less than 50% canopy exists in the WLPZs of Class I and II waters before Timber Operations, only sanitation salvage which protects the values described in 14 CCR §§ 916.4(b), 936.4(b), 956.4(b) shall be allowed.
- (g) Recruitment of large woody debris for instream habitat shall be provided by retaining at least two living conifers per acre at least 16 inches diameter breast high and 50 ft. tall within 50 ft. of all Class I and II Watercourses.

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#### § 916.4, 936.4, 956.4 Watercourse and Lake Protection [All Districts]

- (a) The RPF or supervised designee shall conduct a field examination and map all lakes and Class I, II, III, and IV Watercourses.
- (1) As part of this field examination, the RPF or supervised designee shall evaluate areas near, and areas with the potential to directly Impact, Watercourses and lakes for sensitive conditions including, but not limited to, existing and proposed roads. skid trails and Landings, unstable and erodible Watercourse banks, unstable upslope areas, debris jam potential, inadequate flow capacity, migrating channels, overflow channels, flood prone areas, and Riparian zones wherein the values set forth in 14 CCR §§ 916.4, 936.4, 956.4, subsection (b) are impaired. The RPF shall consider these conditions, and those measures needed to maintain, and restore to the extent feasible, the functions set forth in 14 CCR §§ 916.4(b), 936.4(b), 956.4(b) when proposing WLPZ widths and protection measures. The plan shall identify such conditions, including where they may interact with proposed Timber Operations, that individually or cumulatively significantly and adversely affect the beneficial uses of water, and shall describe measures to protect and restore to the extent feasible, the beneficial uses of water. In proposing, reviewing, and approving such measures, preference shall be given to measures that are on-site, or to offsite measures where sites are located to maximize the benefits to the Impacted portion of a Watercourse or lake.
- (2) As part of this field examination, the RPF or supervised designee shall map the location of spawning and rearing habitat for anadromous salmonids, and the condition of the habitat shall be evaluated using habitat typing that at a minimum identifies the pool, flatwater, and riffle percentages. The opportunity for habitat restoration shall be described within the plan for each Class I Watercourse, and for each Class II Watercourse that can be feasibly restored to a Class I.

- (3) The mapping of conditions identified in subsection (a)(1) and (a)(2) above, and their protective measures, shall be sufficiently clear and detailed to permit the Director and the other review team representatives to evaluate the potential environmental Impacts of Timber Operations, the proposed mitigation measures and the proposed restoration measures.
- (4) The mapping of conditions identified in subsection (a)(1) and (a)(2) above, and their protective measures, shall be sufficiently clear and detailed to provide direction and clear guidance to the Timber Operator.
- (5) The mapping of conditions identified in 14 CCR §§ 916.4, 936.4, 956.4 subsections (a)(1) and (a)(2), and their protective and restoration measures, should be done at a scale of 1:2,400. In site-specific cases, the mapping of critical locations of corrective work and logging operation Impacts shall be done at a scale of at least 1:240 when the Director determines it is necessary to evaluate the plan.
- (6) One set of photocopies of recent stereo aerial photographs of the plan area may be required by the Director.
- **(b)** The standard width of the WLPZ and/or the associated basic protection measures shall be determined from Table I (14 CCR §§ 916.5, 936.5, 956.5) or §§ 916.4(c), 956.4(c), and shall be stated in the plan. A combination of the Rules, the plan, and mitigation measures shall provide protection for the following:
  - **a.** Water temperature control.
  - **b**. Streambed and flow modification by large woody debris.
  - **c.** Filtration of organic and inorganic material.
  - d. Upslope stability.
  - e. Bank and channel stabilization.
  - f. Spawning and rearing habitat for salmonids

- **g.** Vegetation structure diversity for fish and wildlife habitat, possibly including but not limited to:
  - 1. Vertical diversity
  - 2. Migration corridor
  - 3. Nesting, roosting, and escape
  - **4.** Food abundance
  - **5.** Microclimate modification
  - **6.** Snags
  - 7. Surface cover
- (1) Measures and the appropriate zone widths for the protection of the State's waters which have been taken from Table I (14 CCR 916.5, 936.5, 956.5) or developed under §§ 916.4(c), 936.4(c), 956.4(c) shall be stated in the THP.
- (2) All Timber Operations shall conform to the marking, flagging and other identification of protective measures specified in CCR §§ 916.4, 936.4, 956.4, and 916.5, 936.5, 956.5 and the THP. Conformance shall be determined based on the evaluation of no less than a 200-foot lineal segment of each Watercourse or lake.
- (3) The width of the WLPZ shall be measured along the surface of the ground from the Watercourse or Lake Transition Line or in the absence of Riparian vegetation from the top edge of the Watercourse bank
- (4) Slopes shall be measured in percent for the proposed WLPZ. If topography within the proposed WLPZ is variable, segments of the proposed WLPZ should be segregated by slope class as indicated in Table I, 14 CCR §§ 916.5, 936.5, 956.5.
- (5) If requested by either party, and after on-the-ground inspection, the RPF and the Director may increase or decrease the width of a proposed WLPZ. A decrease shall not exceed 25 percent of the width as determined by the procedure prescribed in

- (6) Within the WLPZ, at least 75% surface cover and undisturbed area shall be retained to act as a filter strip for raindrop energy dissipation, and for wildlife habitat. This percentage may be adjusted to meet site specific conditions when proposed by the RPF and approved by the Director or where Broadcast Burning is conducted under the terms of a project type burning permit and in compliance with 14 CCR §§ 915.2(b), 935.2(b), 955.2(b). The percentage of the undisturbed area may be reduced below 75% where operations are conducted in the WLPZ per 14 CCR 916.13

  (c) The protection and WLPZ widths for Class III and Class IV waters shall prevent the degradation of the downstream beneficial use of water and shall be determined on a site-specific basis.
- (1) Where operations occur adjacent to Class III Watercourses, the RPF shall designate in the THP an equipment limitation zone (ELZ) of at least 25 feet where sideslope steepness is less than 30% and at least 50 feet where sideslope steepness is 30% or greater unless explained and justified otherwise in the THP and approved by the Director. Class III Watercourses within logging areas where the EHR is Low, and the slopes are less than 30% shall not require an ELZ unless proposed by the RPF or required by the Director. The RPF shall describe the limitations on the use of heavy equipment in the THP. Where appropriate to protect the beneficial uses of water, the

RPF shall describe additional protection measures, which may include surface cover retention, vegetation protection and timber falling limitations. The location of the areas of heavy equipment use in any ELZ shall be clearly described in the plan, or flagged or marked on the ground before the preharvest inspection. When necessary to protect the beneficial use of water, the RPF shall designate, and the Director may require a WLPZ for Class III and Class IV waters or an ELZ for Class IV waters.

- (2) The width of the WLPZ for Class III and IV waters shall be determined from on-site inspection. Minimum protective measures required when Class III and Class IV protection zones are necessary are contained in Table I 14 CCR §§ 916.5, 936.5, 956.5.
- (3) Soil deposited during Timber Operations in a Class III Watercourse other than at a temporary crossing shall be removed and debris deposited during Timber Operations shall be removed or stabilized before the conclusion of Timber Operations, or before October 15. Temporary crossings shall be removed before the winter period, or as approved by the Director.
- **(4)** When approved by the Director on an individual plan basis as provided in Section 14 CCR §§ 916.4(c)(1), 936.4(c)(1), 956.4(c)(1) Class IV waters shall be exempted from required protection when such protection is inconsistent with the management objectives of the owner of the manmade Watercourse.
- **(d)** Heavy equipment shall not be used in timber falling, Yarding, or Site Preparation within the WLPZ unless such use is explained and justified in the THP and approved by the Director.
- (e) Flagging for heavy equipment use within the WLPZ adjacent to Class I waters and for all tractor road Watercourse crossings of all Watercourses must be completed before the preharvest inspection if one is conducted or start of operations, whichever comes

- **(f)** Subsection (d) does not apply to (1)-(4)(5) below. Subsection (e) does not apply to (2)-(4) below.
  - (1) At prepared tractor road crossings as described in §§ 914.8(b), 934.8(b), 954.8(b).
  - (2) Crossings of Class III Watercourses which are dry at the time of Timber Operations.
  - (3) At existing road crossings.
  - (4) At new tractor and road crossings approved as part of the Fish and Game Code Process (F&GC 1600 et seq.).
  - (5) For fuel reduction operations conducted in the WLPZ per Section 916.13.

§ 916.5, 936.5, 956.5 Procedure for Determining Watercourse and Lake Protection Zone (WLPZ) Widths and Protective Measures [All Districts]

The following procedure for determining WLPZ widths and protective measures shall be followed:

- (a) The following information shall be determined from field investigation:
  - (1) The location of all lakes and Watercourses including man made Watercourses.
  - (2) The existing and restorable beneficial uses of the waters to be protected as identified in subsection (1) above.
  - (3) The side slope classes for the individual class of waters to be protected (e.g. < 30%, 30-50%, >50%), where side slope is measured from the Watercourse or Lake Transition Line to a point 100 feet upslope from the Watercourse or Lake Transition Line, or, in the absence of Riparian vegetation, from the top of the Watercourse bank where slope configurations are variable, a weighted average method shall be used to determine sideslope percent.
- (b) The beneficial uses noted from the field investigations in subsection (a) shall be compared to the characteristics or key beneficial uses listed in Row 1 of Table I (14 CCR §§ 916.5, 936.5, 956.5) to determine the water classes (e.g. I, II, III, IV, Row 2).
- (c) The standard protection zone width differentiated by slope classes determined in Subsection (a) are shown in Rows 4-7, Table I (14 CCR 916.5 [936.5, 956.5]). These widths may be modified as stated in 14 CCR §§ 916.4(b)(5), 936.4(b)(5), 956.4(b)(5).
- (d) The alphabetical letter designations A through I in Rows 4-7, Table 1 14 CCR §§ 916.5, 936.5, 956.5, and described in subsection (e) to Table I indicate the standard protective measures to be applied to the classes of water as determined in subsection (b) above.

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(e) The letter designations shown in the "Protective Measures and Widths" column in Table I correspond to the following:

"A" WLPZ shall be clearly identified on the ground by the RPF who prepared the plan, or supervised designee, with paint, flagging, or other suitable means prior to the preharvest inspection. For nonindustrial timber management plans, sample identification of the WLPZ prior to the preharvest inspection may be allowed. The sample shall be based upon a field examination and be consistent with the applicable provisions of 14 CCR §§ 916.4, 936.4, 956.4 and 916.5, 936.5, 956.5, representing the range of conditions found within the WLPZ. The Director shall determine if the sample identification is adequate for plan evaluation during the preharvest inspection. If sample identification is allowed, the remaining WLPZ shall be identified by an RPF or supervised designee prior to the start of Timber Operations within or adjacent to the WLPZ. The RPF shall notify the Department when the WLPZ has been identified. "B" WLPZ shall be clearly identified on the ground by an RPF or supervised designee, with paint, flagging, or other suitable means, prior to the start of Timber Operations. In watersheds with listed anadromous salmonids, on the ground identification of the WLPZ shall be completed prior to the preharvest inspection. For all NTMPs and WFMPs, sample identification of the WLPZ prior to the preharvest inspection may be allowed. The sample shall be based upon a field examination and be consistent with the applicable provisions of 14 CCR §§ 916.4, 936.4, 956.4 and 916.5, 936.5, 956.5, representing the range of conditions found within the WLPZ. The Director shall determine if the sample identification is adequate for Plan evaluation during the preharvest inspection. If sample identification is allowed, the remaining WLPZ shall be identified by an RPF or supervised designee prior to the start of

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Timber Operations within or adjacent to the WLPZ. The RPF shall notify the Department when the WLPZ has been identified.

"C" In site-specific cases, the RPF may provide in the plan, or the Director may require, that the WLPZ be clearly identified on the ground with flagging or by other suitable means prior to the start of Timber Operations.

"D" To ensure retention of shade canopy filter strip properties of the WLPZ and the maintenance of a multi-storied stand for protection of values described in 14 CCR §§ 916.4(b), 936.4(b), 956.4(b), residual or harvest trees shall be marked, including a base mark below the cut-line within the WLPZ by the RPF, or supervised designee. Outside of watersheds with listed anadromous salmonids, sample marking prior to the preharvest inspection is satisfactory in those cases where the Director determines it is adequate for Plan evaluation. When sample marking has been used, the remaining WLPZ shall be marked in advance of falling operations by the RPF, or supervised designee. In watersheds with listed anadromous salmonids, trees shall be marked in advance of the preharvest inspection. For all NTMPs and WFMPs, sample marking of the WLPZ prior to the preharvest inspection may be allowed. The sample shall be based upon a field examination and shall be consistent with the applicable provisions of 14 CCR §§ 916.4, 936.4, 956.4 and 916.5, 936.5, 956.5, representing the range of conditions found within the WLPZ. The Director shall determine if the sample mark is adequate for Plan evaluation during the preharvest inspection. If sample marking is allowed, the remaining WLPZ shall be marked by an RPF, or supervised designee, prior to the start of Timber Operations within or adjacent to the WLPZ. The RPF shall notify the Department when the WLPZ has been identified. **"E"** To ensure retention of shade canopy filter strip properties of the WLPZ and the maintenance of a multi-storied stand for protection of values described in 14 CCR §§

916.4(b), 936.4(b), 956.4(b), residual or harvest trees shall be marked, including a base mark below the cut line, within the WLPZ by the RPF or supervised designee. Outside of watersheds with listed anadromous salmonids, tree marking shall be done prior to timber falling operations. In watersheds with listed anadromous salmonids, trees shall be marked in advance of the preharvest inspection. For all NTMPs and WFMPs, sample marking of the WLPZ prior to the preharvest inspection may be allowed. The sample shall be based upon a field examination and shall be consistent with the applicable provisions of 14 CCR §§ 916.4, 936.4, 956.4 and 916.5 936.5, 956.5, representing the range of conditions found within the WLPZ. The Director shall determine if the sample mark is adequate for Plan evaluation during the preharvest inspection. If sample marking is allowed, the remaining WLPZ shall be marked by an RPF or supervised designee prior to the start of Timber Operations within or adjacent to the WLPZ. The RPF shall notify the Department when the WLPZ has been identified.

**"F"** Residual or harvest tree marking within the WLPZ may be stipulated in the THP by the RPF or required by the Director in site-specific cases to ensure retention of filter strip properties or to maintain soil stability of the zone. The RPF shall state in the THP if marking was used in these zones.

"G" To protect water temperature, filter strip properties, upslope stability, and fish and wildlife values, at least 50% of the overstory and 50% of the understory canopy covering the ground and adjacent waters shall be left in a well distributed multistoried stand composed of a diversity of species similar to that found before the start of operations <u>Understory canopy may be reduced below 50% when operations are conducted per 916.13.</u> The residual overstory canopy shall be composed of at least 25% of the existing overstory conifers. Species composition may be adjusted

THP by the RPF and the Director.

and the Director in the THP

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§ 916.13, 936.13, 956.13 Fuel Treatment in WLPZs [All Districts]

Operations of ground-based equipment may occur in the WLPZ to modify the horizontal and vertical continuity of the canopy and surface fuels for the purpose of reducing the potential impacts of wildland fire on the beneficial uses of water, Riparian functionality, soils, and habitat values, in accordance with the following conditions:

consistent with the above standard to meet on-site conditions when agreed to in the

"H" At least 50% of the understory vegetation present before Timber Operations shall

percentage may be adjusted to meet on-site conditions when agreed to in the THP by

be left living and well distributed within the WLPZ to maintain soil stability. This

the RPF and the Director or when conducting fuel treatments per Section 916.13.

Unless required by the Director, this shall not be construed to prohibit Broadcast

"I" To protect water temperature, filter strip properties, upslope stability, and fish and

wildlife values, at least 50% of the total canopy covering the ground shall be left in a

well distributed multi-storied stand configuration composed of a diversity of species

conifers. Due to variability in Class II Watercourses these percentages and species

composition may be adjusted to meet on-site conditions when agreed to by the RPF

not required when operations are conducted per Section 916.13. The residual

overstory canopy shall be composed of at least 25% of the existing overstory

similar to that found before the start of operations. Multi storied stand configuration is

Burning with a project type burning permit for Site Preparation.

- (h) <u>To provide protection from sedimentation, equipment shall be restricted within 25 feet</u>
  of the Watercourse Transition <u>Line with an EEZ or ELZ, as follows:</u>
  - (1) Where slopes are 30% or less the 25-foot equipment restriction shall consist of a 15-foot Equipment Exclusion Zone (EEZ) and an outer 10-foot Equipment Limitation Zone (ELZ).
  - (2) Where slopes are over 30% a 25-foot equipment restriction shall consist of a 25-foot Equipment Exclusion Zone.
  - (3) Cable operations shall be consistent with 14 CCR § 914.3.
- (I) Slash treatment shall be accomplished not later than April 1 of the year following its creation, or for piles created on or after September 1, not later than April 1 of the second year following creation. Slash treatment should focus on the protection of Beneficial Function of Riparian Zones and the avoidance of accumulations detrimental to retained habitat elements such as den and nesting sites.
- (j) The Board may request an annual report from the Department which identifies the frequency of use, acres treated, and any violations that may have occurred.

#### § 1052 Emergency Notice

- (a) Before cutting or removing timber on an emergency basis, an RPF on behalf of a Timber Owner or operator shall submit a Notice of Emergency Timber Operations to the Director, on form RM-67 (1/1/10), form RM-65 (1052.4)(2/2020) for a Fuel Hazard Reduction emergency, or form RM-66 (1052.5) (2/1/11) for a Sudden Oak Death emergency, herein incorporated by reference, as prescribed by the Director. The notice shall include, but not be limited to, the following:
  - (1) Names and addresses of all Timberland Owner(s), Timber Owner(s), and Timber Operator(s) for the area on which timber will be cut or removed.

- (2) A description of the specific conditions that constitute the emergency, its cause, extent and reason for immediate commencement of Timber Operations.
- (3) Legal description of the area from which timber will be cut or removed.
- (4) A titled USGS (if available) or equivalent topographic map(s) of scale not less than 2" to the mile, or larger scale, showing the Harvest Area, the legal description, Logging Roads and Class I, II, III and IV Watercourses, Yarding systems if more than one will be used, and boundaries of areas where Tractor Operations are proposed for use on areas designated for Cable Yarding. For Timber Operations conducted pursuant to 14 CCR § 1052.4 within those areas described by 14 CCR § 1052.4(c)(2)(A)-(F), the map(s) shall include those features described within 14 CCR § 1052.4(c)(2)(A)-(F), as appropriate.
- (5) Yarding system to be used.
- (6) The expected dates of commencement and completion of Timber Operations.
- (7) A declaration by the RPF, made under penalty of perjury, that a bona fide emergency exists which requires emergency Timber Operations.
- (8) A declaration by the Timber Owner, made under penalty of perjury, that any applicable timber yield taxes will be paid pursuant to Section 38115 of the Revenue and Taxation Code.
- (9) Name, address, license number, and signature of the RPF who prepares the notice and submits it to the Director on behalf of the Timber Owner or operator.
- (10) For Emergency Notices covering three acres or more in size, the RPF shall include a Confidential Archaeological Letter with the Emergency Notice submitted to the Director. The Director shall also submit a complete copy of the Confidential Archaeological Letter and two copies of any required archaeological or historical site records, to the appropriate Information Center of the California

Historical Resource Information System within 30 days from the date of Emergency Notice submittal to the Director.

- (A) For Projects filing an emergency notice for fuel hazard reduction under 14 CCR § 1052.4, archaeology requirements shall be conducted by a person possessing current certification pursuant to 14 CCR § 929.4 [949.4, 969.4].
- (11) Name, address, License number, and signature of the RPF who has been retained by the Timber Owner or operator to provide professional advice throughout the Timber Operations pursuant to 14 CCR § 1052(f).
- (b) Timber Operations pursuant to an emergency notice shall comply with the Rules and regulations of the Board. A person conducting Timber Operations under an Emergency Notice shall comply with all operational provisions of the Forest Practice Act and District Forest Practice Rules applicable to "Timber Harvest Plan", "THP", and "Plan".
- (c) In-lieu practices for Watercourse and lake protection zones as specified under Article 6 of the Rules, exceptions to Rules, operations conducted in the WLPZ, and alternative practices are not allowed unless necessary to protect public health and safety.
- (d) Timber Operations pursuant to an Emergency Notice may not commence for five working days or 15 days for a fuel hazard emergency per 14 CCR §§ 1052.1(e) and 1052.4, from the date of the Director's receipt of the Emergency Notice unless such waiting period is waived by the Director. The Director shall determine whether the emergency notice is complete. If it is found to be complete the Director shall send a copy of a notice of acceptance to the Timberland Owner. If the Emergency Notice is not complete it shall be returned to the submitter. If the Director does not act within five working days, 15 days for a fuel hazard emergency per 14 CCR §§

- 1052.1(a)(5) and 1052.4, of receipt of the Emergency Notice, Timber Operations may commence.
- (e) Timber Operations shall not continue beyond one (1) year from the date the Emergency Notice is accepted by the Director unless a plan is submitted to the Director and found to be in conformance with the Rules and regulations of the Board, except for treatment of fuels in accordance with 14 CCR § 1052.4(d)(4) and (5).
- (f) An RPF shall be retained by the Timber Owner or LTO to provide professional advice throughout the Timber Operations and shall be present, or ensure that the RPF's Supervised Designee is present, on the Logging Area at a sufficient frequency to know the progress of operations and advise the LTO and Timberland Owner, but not less than once during the life of the notice.