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**Board of Forestry and Fire Protection**

**DRAFT TETHERED OPERATIONS RULE PLEAD - AGGREGATE**

**Title 14 of the California Code of Regulations**

**Division 1.5, Chapter 4,**

**Subchapters 4, 5, &6, Article 4**

**§ 895.1. Definitions**

“Tractor Operations” means any activity which is associated with Timber Operations and is performed by tractors or skidders.

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“Tethered Operations” means those Tractor Operations which utilize synchronized (here meaning a mode in which a traction aid winch is operated automatically with pre-set pulling and braking forces to maintain cable tension with the forward or reverse speed of the machine) cable winch systems which have been specifically designed or modified by the manufacturer or a Professional Engineer, as described within the Professional Engineers Act (Chapter 7 of Division 3 of the Business and Professions Code), to ~~stabilize~~ and assist equipment in felling or Yarding Timber Operations.

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**§ 914 [934, 954]. Purposes.**

Timber Operations shall be conducted to: meet the goal of maximum sustained production of high quality timber products; minimize breakage of merchantable timber; prevent unreasonable damage to residual trees, Reproduction, and fish and wildlife habitat as identified in the Plan~~THP,~~ or contained in the Rules, ~~reproduction, and Riparian vegetation~~; prevent degradation of the quality and Beneficial Uses of water; prevent degradation of the Beneficial Functions of Riparian Zones; and maintain site productivity by minimizing soil disturbance~~loss~~.

~~The following provisions shall be applied in a manner which achieves this standard.~~

Note: Authority cited: Sections 4551, 4551.5 and 4553 Public Resources Code. Reference: 33 U.S.C.A. Section 1288; and Sections 4512, 4513, 4514.3, 4527, 4562.5, 4562.7 and 4582, Public Resources Code.

**INTEGRATION OF 14 CCR §§ 914.2[934.2, 954.2] & 914.3[934.3, 954.3]**

**§ 914.2[934.2, 954.2] ~~Tractor~~ Operations**

(a) ~~Tractor~~Timber Operations shall be conducted in a manner which complies with 14 CCR § 914 [934, 954].

(b) ~~Tractor, or other heavy~~Ground-based equipment which is equipped with a blade, shall not operate on skid roads or slopes that are so steep as to require the use of the blade for braking.

(c) Timber Operators shall exercise due diligence so that ~~desirable~~ residual trees and seedlings will not be damaged or destroyed by Timber Operations. These residual trees shall not be used for rub trees, corner blocks, Rigging, or other cable ties unless effectively protected from damage.

(d) Heavy equipment shall not operate on Unstable Areas. If such areas are unavoidable, the RPF shall develop specific measures to minimize the effect of operations on slope instability. These measures shall be explained and justified in the Plan and approved by the Director, and must meet the requirements of 14 CCR § 914 [934, 954].

(e) Slash and debris from Timber Operations shall not be bunched adjacent to residual trees required for silvicultural or wildlife purposes or placed in locations where they could be discharged into a Class I or II Watercourse, or Lake.

(f) Tractor Roads and Cable Roads shall be limited in number and width to the minimum necessary for removal of logs. When less damage to the resources specified in 14 CCR § 914 [934, 954] will result, existing Tractor Roads and Cable Roads shall be used instead of constructing new Tractor Roads and Cable Roads. **[Northern Only]** The RPF may propose exceptions for silvicultural reasons when explained and justified in the Plan~~THP~~.

(g) Where Tractor Roads are constructed, Timber Operators shall use Tractor Roads only, both for Skidding logs to Landings and on return trips.

(h)~~Tractor Operations shall be subject to t~~The following limitations apply:

(1) Except for Tethered Operations, ~~H~~heavy equipment shall be prohibited where any of the following conditions are present:

(A~~i~~) ~~s~~Slopes steeper than 65%

(B~~ii~~) ~~s~~Slopes steeper than 50% where the Erosion Hazard Rating is high or extreme

(2~~iii~~) Tractor Operations shall be prohibited on slopes over 50% which lead without flattening to sufficiently dissipate water flow and trap sediment before it reaches a Watercourse or Lake.

(3~~2~~) On slopes between 50% and 65% where the Erosion Hazard Rating is moderate, and all slope percentages are for Average Slope steepness based on sample areas that are 20 acres, or less if proposed by the RPF or required by the Director, heavy equipment, except for Tethered Operations, shall be limited to:

(A~~i~~) ~~e~~Existing Tractor Roads that do not require reconstruction, or

**(B~~ii~~)** **[Coast only]** ~~n~~New Tractor Roads at a location that has been shown on the Plan~~THP~~ map, flagged by an RPF or Supervised Designee prior to the pre-harvest inspection or, when a pre-harvest inspection is not required, prior to the start of Timber Operations, and approved by the Director.

**(B~~ii~~)** **[Northern and Southern]** ~~n~~New Tractor Roads that have been flagged by an RPF or supervised designee prior to use.

(4~~3~~) The RPF may propose exceptions to the limitations on Tractor Operations described above if the proposed exception will achieve the goals of~~comply with~~ 14 CCR § 914 [934, 954], and if the Plan~~THP~~ both clearly explains the proposed exception and justifies how the proposed exception will achieve the goals of~~why application of the standard rule is either not Feasible, or would not comply with~~ 14 CCR § 914 [934, 954]. The location of Tractor Roads to be used under such exceptions shall be flagged prior to the pre-harvest inspection or, when a pre-harvest inspection is not required, prior to the start of Timber Operations.

(5~~3~~) Tractor~~s~~ Operations ~~shall not be used~~ may occur in areas designated for Cable Yarding on slopes up to 50%. The limitations of 14 CCR § 914.2 (a) through (g) and any other limitations on Tractor Operations throughout this Chapter, as applicable, apply.

(i) When Tethered Operations on slopes greater than 50% are proposed in a Plan, the RPF shall explain, in the Plan, how Tractor Roads used in those Tethered Operations will be treated in order to minimizes soil disturbance and achieve the goals of 14 CCR § 914[934, 954].

~~(i) Where Waterbreaks cannot effectively disperse surface runoff, other Erosion Controls shall be installed as needed.~~

**~~(j) [Southern only]~~** ~~Except where terracing will disturb less than 50% of the soil surface, mechanical Site Preparation shall not be conducted on any of the following:~~

~~(1) Any slopes over 40%.~~

~~(2) Slopes over 30% which lead without flattening to a class I or class II Watercourse or to a Lake.~~

~~(3) Areas having average slopes over 30%, where the Erosion Hazard Rating is high or extreme. The area sampled for the average shall not exceed 20 acres.~~

**~~(k) [Southern only]~~** ~~The Director may approve exceptions to (j)(1), (j)(2), and (j)(3) above when damage to soil and water quality caused by the use of heavy equipment will not exceed that caused by other Site Preparation methods if explained and justified in the Plan.~~

Note: Authority cited: Sections 4551, 4551.5 and 4553, Public Resources Code. Reference: Sections 4512, 4513, 4562.5, 4562.7 and 4582, Public Resources Code.

**§ 914.6[934.6, 954.6]. Waterbreaks.**

The following standards are applicable to the construction of Waterbreaks:

(a) except as otherwise provided for in the Rules:

(1) All Waterbreaks shall be installed no later than the beginning of the Winter Period of the current year of Timber Operations.

(2) Installation of Drainage Facilities and structures is required from October 15 to November 15 and from April 1 to May 1 on all constructed skid trails and Tractor Roads prior to sunset if the National Weather Service forecast is a “chance” (thirty (30)~~%~~ percent or more) of rain within the next twenty-four (24) hours.

(b) Waterbreaks shall be constructed concurrently with the construction of firebreaks and immediately upon conclusion of use of Tractor Roads (except for those used in Tethered Operations on slopes greater than fifty (50) percent), Logging R~~r~~oads, Layouts, and Landings which do not have permanent and adequate Drainage Facilities, or Drainage Structures.

(c) Tractor Roads used in Tethered Operations on slopes less than fifty (50) percent, shall either have Waterbreaks installed to the standards identified in (d), or be packed with Slash or other vegetative material concurrently with Timber Operations in a manner which minimizes soil disturbance from those Tethered Operations and achieves the goals of 14 CCR § 914[934, 954].

(d~~c~~) Distances between Waterbreaks shall not exceed the following standards:

MAXIMUM DISTANCE BETWEEN WATERBREAKS

Image 1 within § 914.6 [934.6, 954.6]. Waterbreaks.​

The appropriate Waterbreak spacing shall be based upon the Erosion Hazard Rating and road or trail gradient.

(e~~d~~) Cable Roads and Tractor Roads used in Tethered Operations on slopes greater than fifty (50) percent that are so deeply cut as to divert and carry water away from natural drainage patterns for more than one hundred (100) feet shall have Waterbreaks installed on them at one hundred (100) feet intervals, or other appropriate erosion control measures may be applied if specified in the Plan.

(f~~e~~) Waterbreaks shall be installed at all natural Watercourses on Tractor Roads and firebreaks regardless of the maximum distances specified in this section except where permanent Drainage Facilities are provided.

(g~~f~~) Waterbreaks shall be located to allow water to be discharged into some form of vegetative cover, duff, Slash, rocks, or less erodible material wherever possible, and shall be constructed to provide for unrestricted discharge at the lower end of the Waterbreak so that water will be discharged and spread in such a manner that erosion shall be minimized. Where Waterbreaks cannot effectively disperse surface runoff, including where Waterbreaks ~~on roads and skid trail~~ cause surface run-off to be concentrated on downslopes, roads or skid trails, other Erosion Controls shall be installed as needed to comply with 14 CCR § 914 [934, 954].

(h~~g~~) Waterbreaks shall be cut diagonally a minimum of six ~~15.2 cm~~ (6) inches~~)~~ into the firm roadbed, Cable Road~~cableroad~~, skid trail or firebreak surface and shall have a continuous firm embankment of at least six ~~15.2 cm~~ (6) inches~~)~~ in height immediately adjacent to the lower edge of the Waterbreak cut.

**[Coast Only]** In the Southern Subdistrict of the Coast Forest District, on truck roads having firmly compacted surfaces, Waterbreaks installed by hand methods need not provide the additional six ~~15.2 cm~~ (6) inches~~)~~ embankment provided the Waterbreak ditch is constructed so that it is at least six ~~15.2 cm~~ (6) inches~~)~~ deep and six ~~15.2 cm~~ (6) inches~~)~~ wide on the bottom and provided there is ample evidence based on slope, material amount of rainfall, and period of use that the Waterbreaks so constructed will be effective in diverting water flow from the road surface without the embankment.

(i~~h~~) Waterbreaks or any other Erosion Controls on skid trails, Cable Roads, Layouts, firebreaks, Abandoned Roads, and Site Preparation areas shall be maintained during the Prescribed Maintenance Period and during Timber Operations as defined in PRC §§ 4527 and 4551.5 so that they continue to function in a manner which minimizes soil erosion and slope instability and which prevents degradation of the quality and Beneficial Uses of water. The method and timing of Waterbreak repair and other erosion control maintenance shall be selected with due consideration given to protection of residual trees and reproduction and the intent of 14 CCR § 914 [934, 954].

(j~~i~~) The Prescribed Maintenance Period for Waterbreaks and any other erosion control facilities on skid trails, Cable Roads, Layouts, firebreaks, Abandoned Roads, and Site Preparation areas, shall be at least one year. The Director may prescribe a maintenance period extending as much as three years after filing of the work completion report in accordance with 14 CCR § 1050.

Note: Authority cited: Sections 4551, 4551.5 and 4553, Public Resources Code. Reference: Sections 4512, 4513, 4562.5, 4562.7 and 4582, Public Resources Code.

**§ 1034. Contents of Plan**

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(n) Type of Yarding (logging) systems and equipment to be used. Yarding systems will be placed in one or more of the following groups:

(1) Animal.

(2) Tractor, skidder, forwarder.

(A) Non-tethered

(B) Tethered

(3) Cable.

(A) Ground-lead.

(B) High-lead.

(C) Skyline.

(4) Balloon, helicopter.

(5) Other, as explained in the Plan.

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(x) On titled USGS (if available) or equivalent topographic maps of a scale not less than 2” to the mile, the information in subsections (1)-(3), (4)(A), (B) and (E) ((4)(B) and (E) for sites within the Harvest Area), (8), (9), and (11)-(13) shall be clearly shown. Additional maps, which may be topographic or planimetric, may be used to provide the information required in the other subsections, to show specific details, and to improve map clarity. The Appurtenant Roads referenced in subsections (4)(B), (C), (D), and (E) ((4)(B) and (E) for sites not within the Harvest Area) may be shown on a map which may be planimetric with a scale as small as one-half inch equals one mile. Color coding shall not be used. A legend shall be included indicating the meaning of the symbols used. See the District Rules for the appropriate minimum mapping acreages.

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(3) boundaries of Yarding (logging) systems, if more than one system is to be used.  
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(17) Boundaries of areas where Tractor Operations are proposed for use on areas designated for Cable Yarding.

**\*\*Rulemaking note:** *Similar language may be included within:*

*14 CCR §§: 1038.2 (Mapping Standards for Notices of Exemption),*

*1038.4 (Mapping Standards for the Forest Fire Prevention Exemption),*

*1052 (Emergency Notice),*

*1090.5 (Contents of NTMP),*

*1090.7 (Notice of Timber Operations Content),*

*1092.09 (PTHP Contents),*

*1094.6 (Contents of WFMP),*

*1094.8 (Working Forest Harvest Notice Content)*

Note: Authority cited: Sections 4551 and 4552, Public Resources Code. Reference: Sections 4527, 4582 and 4583, Public Resources Code.