4-29-11 Road Rules Task Force Plead with FPC edits

Road Rules, 2011

14 CCR, Div. 1.5 Chapter 4

§ 895.1 Definitions.

§ 914.7 [934.7, 954.7]. Timber Operations, Winter Period.

§ 914.8 [934.8,954.8] Tractor Road Watercourse Crossings.

§ 915.1 [935.1, 955.1]. Use of Heavy Equipment for Site Preparation.

§ 916.3 [936.3,956.3] General Limitations Near Watercourses.

§ 916.4 [936.4,956.4] .

§ 916.9 [936.9,956.9] Protection and Restoration of the Beneficial functions of the Riparian Zone in Watersheds with Listed Anadromous Salmonids.

§ 918.3 [938.3,958.3] Roads to be Kept Passable.

§ 923 [943.1,963.1]Intent for Logging Roads, Landings, and Logging Road Watercourse Crossings.

§ 923.1 [943.2,963.2] Logging Road and Landing Planning.

§ 923.2 [943.3,963.3] Design and Implementation for Logging Roads and Landings.

§ 923.3 [943.3,963.3] Mapping and Identification for Logging Roads and Landings.

§ 923.4 [943.4,963.4] Construction & Reconstruction for Logging Roads and Landings.

§ 923.5 [943.5,963.5] Erosion Control for Logging Roads and Landings.

§ 923.6 [943.6,963.6] Use of Logging Roads and Landings.

§ 923.7 [943.7,963.7] Maintenance & Monitoring for Logging Roads and Landings

§ 923.8 [943.8,963.8] Abandonment & Deactivation of Logging Roads and Landings

§ 923.9 [943.9,963.9]LTO Responsibility for Logging Roads and Landings

§ 923.10 [943.10,963.10]Planning for Logging Road Watercourse Crossing

§ 923.11 [943.11,963.11]Logging Road Watercourse Crossing Design and Implementation

§ 923.12 [943.12,963.12] Logging Road Watercourse Crossing Mapping and Identification

§ 923.13 [943.13,963.13] Logging Road Watercourse Crossing Construction & Reconstruction

§ 923.14 [943.14,963.14] Logging Road Watercourse Crossing Erosion Control

§ 923.15 [943.15,963.15] Logging Road Watercourse Crossing Use

§ 923.16 [943.16,963.16] Logging Road Watercourse Crossing Maintenance & Monitoring

§ 923.17 [943.17,963.17] Logging Road Watercourse Crossing Removal

§ 1034 Contents of Plans

§ 1051.1.Contents of Modified NTMP

§ 1090.5 Contents of NTMP

§ 1090.7 Notice of Timber Operations Content

§ 1092.09 PTHP Contents

§ 1093.2. Contents of Road Management Plan.

§ 1104.1. Conversion Exemptions.

4-29-11 Road Rules Task Force Plead with FPC edits

Notes: Proposed new or relocated text in underscore
Deleted existing text in ~~strikeout~~
Text in yellow are amendments to the RRTF plead suggested by DFG or NMFS under consideration.
Text in red are amendments to the RRTF plead suggested by CGS, CAL FIRE or Board staff under consideration

Amend § 895.1. Definitions.

Abandoned Road means a logging road on which proactive measures have been applied to effectively remove it from the permanent road network.

~~**Abandonment** means leaving a logging road reasonably impassable to standard production four wheel-drive highway vehicles, and leaving a logging road and landings, in a condition which provides for long-term functioning of erosion controls with little or no continuing maintenance.~~

Abandonment means taking proactive measures to effectively remove an existing logging road, landing, or logging road watercourse crossing from the permanent road network.

Appurtenant Road means a road that is owned or controlled by the timberland owner, timber operator or timber owner, and will be used during the harvesting of a particular plan area.

CAL FIRE Option: Appurtenant Road means a logging road under the ownership or control of the timber owner, timberland owner, timber operator, or plan submitter that will be used for log hauling and that

is between the plan area and the first public road to be used for log hauling.[1]

~~**Berm** means a curb or dike constructed to control water and prevent roadway runoff waters from discharging onto roadside slopes and/or to provide material for subsequent road maintenance.~~

Berm means a curb, dike, or linear mound of earth that is constructed to control water and direct roadway runoff waters or that has developed through road grading activities.

Connected Headwall Swale means a geomorphic feature consisting of a bowl-shaped, concave depression with convergent slopes, typically of 65 percent or greater steepness, that is connected to a watercourse or lake by way of a continuous linear depression and that has been sculpted over geologic time by shallow landslide events. The slope profile is typically smooth and unbroken by benches, but may be interrupted by recent landslide deposits or scars. Emergent groundwater and wet areas may exist at the base of the swale. Soil and colluvium depth is typically greatest at the axis of the swale, thinning to either side.

Critical Dip means a constructed dip across a logging road surface immediately down grade from, or over, a culverted logging road

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[1] *Term inserted for two reasons: 1) term is used routinely in existing FPRs (see definition of Logging Area in 895.1) and needs a clear meaning; 2) The use of the term helps clarity which roads need erosion site assessments as proposed under 923.1 (e). As the Option CB CAL FIRE language is used in the Road Rules in section 1092.1*

watercourse crossing that functions to prevent crossing overflow from draining down the road.

Crowning means creating a road surface with a convex cross sectional profile that drains runoff toward both sides of the road.

Deactivated Road means a logging road that is part of the permanent road network where proactive measures have been applied to prevent active use.

Deactivation means taking the proactive measures necessary to prevent the active use of an existing logging road, landing, or logging road watercourse crossing.

End-Hauling means the removal and transport of ~~excavated~~ excess material ~~to prevent sidecast~~.

Excess Material means excavated material that is not used ~~or needed~~ as a functional part of the road or ~~a~~ landing. Excess material is synonymous with spoils.

Extended Wet Weather Period means the period from October 15 to May 1. [2]

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[2] The concept of the extended wet weather period being based on rainfall data, perhaps on rainfall records for Hydrologic Sub Areas or Super Planning

Fill means material that is mechanically placed ~~in low areas~~ and built up in lifts to form a ~~the~~ roadbed or landing surface. Fill includes the material placed around culverts and related drainage structures at logging road watercourse crossings.

Ford means a logging road watercourse crossing where the road grade dips through the watercourse channel.

Harvest Area means the area where trees are felled and removed.

DFG Option: Inside Ditch Hydraulic Capacity means the ability of an inboard ditch to contain flow from a runoff event without overflowing to the road surface or substantially downcutting the inboard ditch.

Insloping means shaping the road surface to drain toward a cutbank. **Outsloping** means shaping the road surface to drain toward the outside edge.

Permanent Road means ~~a road which is planned and constructed to be part of a permanent all-season transportation facility. These roads have a surface which is suitable for the hauling of forest products~~

Watersheds, appears to be a logical way to approach this issue. DFG recommended that its option for a MAY 31 st date be dropped. This decision was based on the May 31 date being generated from data from NW California Coho salmon rainfall records. Since these records are from areas covered by HCPs need for the extended date is not needed, and the May 31 date is not applicable for other parts of the state.

~~throughout the entire winter period and have drainage structures, if any, at watercourse crossings which will accommodate the fifty-year flood flow. Normally they are maintained during the winter period.~~ a logging road that is part of the permanent road network and is planned, constructed, and maintained for year-round use.

Permanent Road Network means the permanent, seasonal, ~~and~~ temporary, and deactivated roads that provide the infrastructure necessary for timber operations and forest management.

Permanent Watercourse Crossing means a watercourse crossing that ~~will be constructed to accommodate the estimated fifty-year flood flow and~~ will remain in place when timber operations have been completed.

Prescribed Maintenance Period means the time period, beginning with filing of the work completion report, provided that the report is subsequently approved, during which erosion controls ~~which~~ that are required and constructed as part of ~~a~~ timber operations must be maintained in a functional condition. ~~The period shall not exceed three years from the filing of the work completion report provided that the report is subsequently approved by the director.~~

Public Road means a road open to the general public which is: (a) in ~~the~~ a Federal, State, ~~or~~ County, or City road system, or (b) a road on which a public agency has deeded, unlimited easement.

4-29-11 Road Rules Task Force Plead with FPC edits

DFG Option – with 2/1/11 FPC changes:[3] **Road approach** means the portion of the logging road surface that drains overland water flow to the watercourse crossing. Road approaches begin/end at the nearest functional drainage structure/facility or the first high point on the road where road surface overland water flow drains away from the watercourse crossings. Crossings often have two road approaches.

Road Maintenance means activities involving manipulation of the logging road prism to maintain stable operating surfaces, functioning logging road drainage facilities and structures, and stable cutbanks and fill slopes. **DFG Option:** Examples of road maintenance include shaping and/or rocking a road surface; installation and maintenance of rolling and critical dips; restoring functional capacity of inboard ditches, cross drains, or culverts; and repairing water bars.

Road Prism means all parts of a road including cut banks, ditches, road surfaces, road shoulders, and road fills.

Road Prism means all parts of a road including cut banks, ditches, road surfaces, road shoulders, and road fills.

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[3] Change made at FPC meeting on 2/1/11. Deletes that approaches are characterized by road surfaces that are not hydrologically disconnected and drain overland water flow to watercourses. Intent to clearly define physical feature of an approach and address requirements for connected approaches in the appropriate rule section. A companion edit is made to 923.5 (p)((4) and (5)to implement this intent. FPC also notes that this definition is intended to address approaches at watercourse crossing, to various water bars, dips, away from water course crossings.

DFG Option: Scour means the process of erosion by flowing water.

Seasonal Road means a ~~road which is planned and constructed as part of a permanent transportation facility where: 1) commercial hauling may be discontinued during the winter period, or 2) the landowner desires continuation of access for fire control, forest management activities, Christmas tree growing, or for occasional or incidental use for harvesting of minor forest products, or similar activities. These roads have a surface adequate for hauling of forest products in the non-winter periods, and in the extended dry periods or hard frozen conditions occurring during the winter period; and have drainage structures, if any, at watercourse crossing which will accommodate the fifty-year flood flow. Some maintenance usually is required~~ logging road that is part of the permanent road network where use is generally discontinued during the winter period.

DFG Option: Sediment Filter Strip means a structure or vegetation that substantially prevents concentration, transport, and delivery of sediment to a watercourse or lake by reducing velocity and filtering water through features such as gradual slopes treated with vegetation, gentle slopes, woody debris and mulch or settling basins.

Sidecast means excess earthen material pushed or dumped ~~to or~~ over the side of a road~~s~~ or landing~~s~~.

BOF Staff Option: Significant sediment discharge[4] means sediment that is currently, or may be in the future, discharged to watercourses or lakes in quantities that violate of Water Quality Requirements or result in significant individual or cumulative adverse impacts to the beneficial uses of water.

BOF Staff Option: Significant existing or potential erosion site means a location where sediment is currently, or may be in the future, discharged to watercourses or lakes in quantities that violate Water Quality Requirements or result in significant individual or cumulative adverse impacts to the beneficial uses of water.[5] A site that is eroding but is not delivering, nor has the potential to deliver sediment to a water body, is not a significant existing or potential erosion site.[6]

Temporary Road means a logging road that is to be used only during ~~the~~ timber operations and that will be deactivated or abandoned upon completion of use. ~~These roads have a surface adequate for seasonal logging use and have drainage structures, if any, adequate to carry the anticipated flow of water during the period of use.~~

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[4] New definition proposed by Board staff in January 2011 to standardize sediment discharge prevention language used throughout the Road Rules.
[4] Added on 12/20/10 by BOF staff as a result of usage proposed by FPC in section 923.1 (d).
[5] Added on 12/20/10 by BOF staff as a result of usage proposed by FPC in section 923.1 (d).
[6] BOF staff revision to definition based on adaptation of language used in the NCRWQCB ECP guidance document for the Scott River.

Through Cut means a section of road that lies below the adjacent ground level on both sides of the road.

Through Fill means a section of road upon constructed fill that lies above the adjacent ground level on both sides of the road.

Amend 14 CCR § 914.7 [934.7, 954.7]. Timber Operations, Winter Period.

During the winter period:

(a) Mechanical site preparation and timber harvesting, shall not be conducted unless a winter period operating plan is incorporated in the timber harvesting plan and is followed, or unless the requirements of subsection (c) are met. Cable, helicopter and balloon yarding methods are exempted.

(b) The winter period operating plan shall include the specific measures to be taken in winter timber operations to minimize damage due to erosion, soil movement into watercourses and soil compaction from felling, yarding, loading, mechanical site preparation, and erosion control activities. A winter period operating plan shall address the following subjects:

(1) Erosion hazard rating.
(2) Mechanical site preparation methods.
(3) Yarding system (constructed skid trails).
(4) Operating Period.
(5) Erosion control facilities timing.
(6) Consideration of form of precipitation-rain or snow.
(7) Ground conditions (soil moisture condition, frozen).
(8) Silvicultural system-ground cover.
(9) Operations within the WLPZ.
(10) Equipment use limitations.
(11) Known unstable areas.

(c) In lieu of a winter period operating plan, the RPF can specify the following measures in the THP:

(1) **Staff Proposal 4/20/11** Tractor yarding or the use of tractors for constructing layouts, firebreaks or other tractor roads shall be

done only during dry, rainless periods and shall not be conducted on saturated soils conditions that may produce significant sediment discharge. ~~sediment in quantities sufficient to cause a visible increase in turbidity of downstream waters in receiving Class I, II, III or IV waters or that violate Water Quality Requirements.~~

Amend § 914.8 [934.8, 954.8] Tractor Road Watercourse Crossing

(d) Tractor road ~~W~~watercourse crossing facilities ~~not constructed to permanent crossing standards on tractor roads~~ shall be removed and stabilized before the beginning of the winter period~~. If a watercourse crossing is to be removed, it shall be removed in accordance with~~ to the standards of 14 CCR § ~~923.3(d) [943.3(d), 963.3(d)]~~ 923.17 [943.17, 963.17], subsections(a)-(c) . The RPF may propose an exception if explained and justified in the plan and found by the Director to be in conformance with this article.

4-29-11 Road Rules Task Force Plead with FPC edits

Amend 14 CCR § 915.1 [935.1, 955.1]. Use of Heavy Equipment for Site Preparation.

(a) Use of heavy equipment for site preparation shall comply with the provisions set forth in 14 CCR 914.2 [934.2, 954.2].

(b) **Staff Proposal 4/20/11:** Heavy equipment shall not be used for site preparation under saturated soil conditions that may produce significant sediment discharge ~~sediment in quantities sufficient to cause a visible increase in turbidity of downstream waters in receiving Class I, II, III or IV waters; that violate Water Quality Requirements~~; or when it cannot operate under its own power due to wet conditions.

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

(c) The timber operator shall not ~~construct or reconstruct roads,~~ construct or use tractor roads ~~or landings~~ in Class I, II, III or IV watercourses, in the WLPZ, marshes, wet meadows, and other wet areas unless when explained and justified in the ~~THP~~ 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 ~~which~~ that are dry at the time of ~~timber operations~~ use.

~~**(3)** At existing road crossings.~~

~~**(4)**~~**(3)** At new tractor ~~and~~ road crossings approved as part of the Fish and Game Code process (F&GC 1600 et seq.).

~~Use of existing roads is addressed in 916.4(a) [936.4(a), 956.4(a)].~~

Amend 916.4 [936.4, 956.4]. Watercourse and Lake Protection.

(a) The RPF or supervised designee shall conduct a field examination of all lakes and watercourses and shall map all lakes and watercourses which contain or conduct Class I, II, III or IV waters.

(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,~~ skidtrails ~~and landings~~[7], unstable and erodible watercourse banks, unstable upslope areas, debris, jam potential, inadequate flow capacity, changeable channels, overflow channels, flood prone areas, and riparian zones wherein the values set forth in 14 CCR §§ 916.4~~(b)~~ [936.4~~(b)~~, 956.4~~(b)]~~, subsection(b) are impaired. *****

[7] Deleted requirement for examination of roads and landings as part of the watercourse classification, because this requirement has been transferred to 923.1 (d).

4-29-11 Road Rules Task Force Plead with FPC edits

Amend § 916.9 [936.9, 956.9]. Protection and Restoration of the Beneficial functions of the Riparian Zone in Watersheds with Listed Anadromous Salmonids.

In addition to all other district Forest Practice Rules, the following requirements shall apply in any watershed with listed anadromous salmonids. Requirements of 14 CCR § 916.9 [936.9, 956.9] precede other sections of the FPRs.

Geographic scope - Requirements for watersheds with listed anadromous salmonids differ depending on the geographic location of the watershed and geomorphic characteristics of the watercourse. Unique requirements for watersheds with listed anadromous salmonids are set forth for 1) watercourses in the coastal anadromy zone with confined channels, 2) watercourses with flood prone areas or channel migration zones, and 3) watercourses with confined channels located outside the coastal anadromy zone.

Watersheds which do not meet the definition of "watersheds with listed anadromous salmonids" are not subject to this section except as follows: The provisions of 14 CCR 916.9 [936.9, 956.9], subsections (k)-(q), ~~923.3 [943, 963]and 923.9 [943.9, 963.9]~~also apply to planning watersheds immediately upstream of, and contiguous to, any watershed with listed anadromous salmonids for purposes of reducing significant adverse impacts from transported fine sediment. Projects in other watersheds further upstream that flow into watersheds with listed anadromous salmonids, not otherwise designated above, may be subject to these provisions based on an assessment consistent with cumulative impacts assessment requirements in 14 CCR §§ 898 and 912.9 [932.9, 952.9] and Technical Rule Addendum No. 2, Cumulative Impacts Assessment. These requirements do not apply to upstream watersheds where permanent dams attenuate the transport of fine sediment to downstream watercourses with listed anadromous salmonids.*****

*******(f) Class I watercourses -**

(1) For Class I watercourses, where fish are always or seasonally present or where fish habitat is restorable, any plan involving timber operations within the WLPZ shall contain the following information:

(A) Clear and enforceable specifications of timber operations within the Class I WLPZ, including a description of how any disturbance, or log or tree cutting and removal shall be carried out to conform with 14 CCR §§ 916.2 [936.2, 956.2], subsection (a) and 916.9 [936.9, 956.9], subsection (a).

~~**(B)** A description of all existing permanent logging road watercourse crossings.~~

~~**(C)** Clear and enforceable specifications describing how these crossings are to be modified, used, and treated to minimize risks, giving special attention to allowing fish to pass both upstream and downstream during all life stages.~~

~~**(D)** Clear and enforceable specifications for construction and operation of any new crossing(s) of a Class I watercourse to prevent direct harm, habitat degradation, water velocity increase, hindrance of fish passage, or other potential impairment of beneficial uses of water~~

(~~E~~B) Documentation of how proposed harvesting in the WLPZ contributes to the objectives of each zone stated in 14 CCR § 916.9 [936.9, 956.9], subsection (c) and other goals in 14 CCR § 916.9 [936.9, 956.9], subsection (a) (1)-(8). Documentation shall include the examinations, analysis, and other requirements listed in 14 CCR § 916.4 [936.4, 956.4], subsection (a).*****

******* (3)** Class I watercourses with flood prone areas or channel migration zones:*****

******* (E)** Preferred Management Practices in the Inner Zone A and B of Flood Prone Areas*****

- ~~4. Avoid Road and Landing Use: All new roads and landings shall be located outside of zone. When feasible, minimize use of existing roads and landings in the flood prone area. No servicing of equipment within the flood prone area. Exceptions include the use of roads and landings to accomplish actions to improved salmonid habitat conditions stated 14 CCR § 916.9 [936.9, 956.9]. subsection (f)(3)(E(1.) above.~~

~~**5.**~~**4.** Avoid Slash concentration and site preparation:***** and pile burning.

~~**6.**~~**5.** Delineate Zone on the Ground:***** Locations of all WLPZ zones and CMZs shall be designated on the ground.

~~**7.**~~**6.** Avoid Use of Water Drafting Sites:***** or stream alteration permits.

~~**8.**~~**7.** **Avoid Disturbance to Critical Flood Prone Area Habitat::******* and down large woody debris.

(F) Outer Zone:*****

*******(k) Year-round ~~logging road, landing and~~ tractor road use limitations.**

(1)[8] **Staff Proposal 4/20/11::** ~~Logging roads, landings or~~ T~~t~~tractor roads shall not be used when operations may result in significant sediment discharge ~~visibly turbid water from the road, landing or tractor road (skid trail) or an inside ditch associated with the logging road, landing or tractor road may produce sediment in~~

[8] Modified RRTF proposal to conform to language for this section adopted by BOF on 9/7/10 for the "Operations and Saturated Soils, 2010" regulation.

~~quantities sufficient to cause a visible increase in turbidity of downstream waters in receiving Class I, II, III or IV waters or violate Water Quality Requirements.~~

~~**(2)** Log hauling on logging roads and landings shall be limited to those which are hydrologically disconnected from watercourses to the extent feasible, and exhibit a stable operating surface in conformance with (1) above.~~

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

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

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

(l) Extended Wet Weather Period - ~~October 15 to May 1 shall be considered the extended wet weather period and the~~The following shall apply during the extended wet weather period:

(1) No timber operations shall take place unless the approved plan incorporates a complete winter period operating plan pursuant to

14 CCR § 914.7 [934.7, 954.7], subsection (a) that specifically addresses, where applicable, proposed ~~logging road, landing or~~ tractor road construction, reconstruction and use ~~during the extended wet weather period~~. ~~Where logging road watercourse crossing construction or reconstruction is proposed an implementation schedule shall be specified.~~

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

~~**(3)** Logging roads, landings and tractor roads shall not be used when sediment from the logging road, landing or tractor road surface is transported to a watercourse or a drainage facility that discharges into a watercourse in amounts sufficient to cause a visible increase in turbidity in Class I, II, III, or IV waters.~~

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

***** **(n) Staff Proposal 4/20/11 Treatments to stabilize soils -** Within the WLPZ, and within any ELZ or EEZ designated for watercourse or lake protection, treatments to stabilize soils, minimize soil erosion, and prevent significant sediment discharge ~~the discharge of sediment into watercourses or lakes in amounts deleterious to aquatic species or the quality and beneficial uses of water, or that threaten~~

~~to violate applicable water quality requirements~~, shall be described in the plan as follows.

(1)***

*******(C)** Disturbed tractor road cut banks and fills, and*****

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

(3)***

*******(o)** Section reserved for future use. ~~**Erosion site identification and remedies.*****~~

(p) Section reserved for future use.~~Erosion control maintenance – The erosion control maintenance period on permanent and seasonal roads and associated landings that are not abandoned in accordance with 14 CCR § 923.8 [943.8, 963.8] shall be three years.~~ *****

*****(r) Section reserved for future use.~~Water drafting – Water drafting for timber operations shall:~~

~~**(1)** Comply with Fish and Game Code Section 1600, et seq.~~

~~**(A)** Timber operations conducted under a Fish and Game Code Section 1600 master or long-term agreement that includes water drafting may provide proof of such coverage for compliance with this paragraph.~~

~~**(2)** Describe the water drafting site conditions and proposed water drafting activity in the plan, including:~~

~~**(A)** a general description of the conditions and proposed water drafting;~~

~~**(B)** a map showing proposed water drafting locations;~~

~~**(C)** the watercourse classification;~~

~~**(D)** the drafting parameters including the months the site is proposed for use; estimated total volume needed per day; estimated maximum instantaneous drafting rate and filling time; and disclosure of other water drafting activities in the same watershed;~~

~~**(E)** the estimated drainage area (acres) above the point of diversion;~~

~~**(F)** the estimated unimpeded streamflow, pumping rate, and drafting duration,~~

~~**(G)** a discussion of the effects on aquatic habitat downstream from the drafting site(s) of single pumping operations, or multiple pumping operations at the same location, and at other locations in the same watershed;~~

~~**(H)** a discussion of proposed alternatives and measures to prevent adverse effects to fish and wildlife resources, such as reducing hose diameter; using gravity-fed tanks instead of truck pumping; reducing the instantaneous or daily intake at one location; describing allowances for recharge time; using other dust palliatives; and drafting water at alternative sites; and~~

~~**(I)** The methods that will be used to measure source streamflow prior to the water drafting operation and the conditions that will trigger streamflow to be measured during the operation.~~

~~**(3)** All water drafting for timber operations are subject to each~~

~~requirement below unless the Department of Fish and Game modifies the requirement in the Lake or Streambed Alteration agreement that authorized the drafting operation, or unless otherwise specified below:~~

~~**(A)** All intakes shall be screened to prevent impingement of juvenile fish against the screen. The following requirements apply to screens and water drafting on Class I waters:~~

~~**1.** Openings in perforated plate or woven wire mesh screens shall not exceed 3/32 inches (2.38 millimeters). Slot openings in wedge wire screens shall not exceed 1/16 inches (1.75 millimeters).~~

~~**2.** The screen surface shall have at least 2.5 square feet of openings submerged in water.~~

~~**3.** The drafting operator shall regularly inspect, clean, and maintain screens to ensure proper operation whenever water is drafted.~~

~~**4.** The approach velocity (water moving through the screen) shall notexceed 0.33 feet/second.~~

~~**5.** The diversion rate shall not exceed 350 gallons per minute.~~

~~**(B)** Approaches and associated drainage features to drafting locations within a WLPZ or channel zone shall be surfaced with rock or other suitable material to minimize generation of sediment.~~

~~**(C)** Barriers to sediment transport, such as straw waddles, logs, straw bales or~~

~~sediment fences, shall be installed outside the normal high water mark to prevent sediment delivery to the watercourse and limit truck encroachment.~~

~~**(D)** Water drafting trucks parked on streambeds and floodplains shall use drip pans or other devices such as absorbent blankets, sheet barriers or other materials as needed to prevent soil and water contamination from motor oil or hydraulic fluid leaks.~~

~~**(E)** Bypass flows for Class I watercourses shall be provided in volume sufficient to avoid dewatering the watercourse and maintain aquatic life downstream, and shall conform to the following standard:~~

~~**1**. Bypass flows in the source stream during drafting shall be at least 2 cubic feet per second.~~

~~**2**. Diversion rate shall not exceed 10 percent of the surface flow.~~

~~**3**. Pool volume reduction shall not exceed 10 percent.~~

~~**(F)** The drafting operator shall keep a log that records for each time water is drafted, the date, total pumping time, pump rate, starting time, ending time, and volume diverted. Logs shall be filed with the Department of Forestry and Fire Protection at the end of seasonal operations and maintained with the plan record. This requirement may be modified in the approved plan that covers the water drafting, but only with concurrence from the Department of Fish and Game.~~

~~**(G)** Before commencing any water drafting operation, the RPF and the drafting operator shall conduct a pre-operations field review~~

~~to discuss the water drafting measures in the plan and/or Lake or Streambed Alteration Agreement.~~*****

*******(v) Site-specific measures or nonstandard operational provisions*******

Amend § 918.3 [938.3, 958.3]. ~~**Roads to be Kept Passable**~~

~~Timber operators shall keep all logging truck roads in a passable condition during the dry season for fire truck travel until snag and slash disposal has been completed.~~

4-29-11 Road Rules Task Force Plead with FPC edits

Amend Article 12. [Article 11.] Logging Roads, Landings, and Logging Road Watercourse Crossings. ~~Logging Roads and Landings~~

Amend § 923 [943,963]. Intent for Logging Roads, Landings, and Logging Road Watercourse Crossings ~~Logging Roads and Landings~~.

(a) All logging roads, landings, and logging road watercourse crossings in the logging area shall be planned, constructed, reconstructed, used, maintained, removed, abandoned, and deactivated in a manner that:

(1) Is consistent with long-term enhancement and maintenance of the forest **NMFS OPTION** 1/3/11 and aquatic resource.

(2) Accommodates appropriate yarding systems.

(3) Is economically feasible.

(b) Such planning, construction, reconstruction, use, maintenance, removal, abandonment, and deactivation shall occur in a manner that minimizes potential adverse impacts to, among other things:[9]

(1) Public safety.

(2) Fish and wildlife habitat.

(3) Water quality and the beneficial uses of water.

(4) Soil resources.

(5) Significant archeological and historical sites.

(6) Air quality.

(7) Visual resources.

(8) Worker safety.

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[9] FPC decision point from March 2010: standardizes language for intent of minimizing impacts.

(9) Fire hazard.

(c) The RPF may propose exceptions to these rules if explained and justified in the plan and found by the Director to be in conformance with this article.

(d) Exceptions may also be provided through application of Fish and Game Code Sections 1600 et seq. and shall be made an enforceable part of the plan in accordance with 14 CCR §S 1039, 1040, 1090.14, 1092.26, or 1092.27, as appropriate.

(e) The provisions of Articles 12 [Article 11 for Northern District] that apply in watersheds with listed anadromous salmonids and in planning watersheds immediately upstream of, and contiguous to, any watershed with listed anadromous salmonids shall not apply to a plan that is subject to:

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

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

(3) A valid natural community conservation plan that addresses anadromous salmonid protection approved by DFG under section 2835 of the Fish and Game Code; or

(4) A valid **NMFS OPTION 1/3/11** ~~**H**abitat~~ Conservation Plan that addresses anadromous salmonid protection, approved under Section 10 of the federal Endangered Species Act of 1973; or

(5) Project revisions, guidelines, or take avoidance measures pursuant to a memorandum of understanding or a planning agreement entered into between the plan submitter and DFG in preparation of obtaining a natural community conservation plan that addresses anadromous salmonid protection.

(f) **NMFS OPTION 1/3/11** In addition to all other district Forest Practice Rules the following goals and objectives shall apply to all logging roads, landings, and logging road watercourse crossings in watersheds with listed anadromous salmonids and in planning watersheds immediately upstream of, and contiguous to, except in watersheds where permanent dams attenuate the transport of fine sediment to downstream watercourses, and in any watershed with listed anadromous salmonids:

(1) Goal: All logging roads, landings, and logging road watercourse crossings in the logging area shall be planned, constructed, reconstructed, used, maintained, removed, abandoned, and deactivated in a manner that protects, maintains, and contributes to the restoration and recovery of properly functioning salmonid habitat and populations of listed salmonid species. To achieve this goal, the RPF and LTO shall ensure that all logging roads and landings be planned, constructed, reconstructed, used, maintained, removed, abandoned, and deactivated to:

(A) Comply with terms of a Total Maximum Daily Load (TMDL).

(B) Prevent, individual and cumulative, significant sediment load transport to a watercourse or lake in order to ensure a functioning anadromous salmonid population can have the quality and quantity of habitat that occurs in their preferred range or where they

are present or where they could be restored, needed to:

(i) provide foraging opportunities for juvenile anadromous salmonids to achieve optimal growth before ocean entry;

(ii) provide rearing habitat throughout the year; and

(iii) provide clean gravels for successful spawning.

(C) Prevent any blockage of any aquatic migratory routes for any life stage of anadromous salmonids or listed species.

(D) Prevent any adverse effects to stream flow.

(E) Consider watershed recommendations in Recovery Plans for listed anadromous salmonids developed by the National Marine Fisheries Service and the California Department of Fish and Game.

(2) Objectives for Logging Roads, Landings, and Logging Road Crossings. All logging roads, landings, and logging road crossings- that are planned, constructed, reconstructed, used, maintained, removed, abandoned, and deactivated as part of a Plan shall have protection, maintenance, or restoration and repair existing conditions detrimental to the species or species habitat of properly functioning salmonid habitat and populations as objectives. Practices that meet this objective include, but are not limited to, abandonment and up-grading of non-functioning and high risk roads, watercourse crossings, road approaches, and hydrologically disconnecting to the maximum extent practicable logging roads and landings that are existing constructed or reconstructed.

4-29-11 Road Rules Task Force Plead with FPC edits

Amend § 923.1[943.1, 963.1]. Planning for Logging Roads and Landings. The following standards shall apply to logging roads and landings:

(a) Logging roads and landings shall be planned and located within the context of a systematic layout pattern that considers 14 CCR § 923(b), uses existing logging roads and landings where feasible and appropriate, provides access for fire and resource protection activities, and minimizes the following[10]:

(1) Total road mileage.

(2) The number of logging road watercourse crossings.

(3) Activities near watercourses, lakes, marshes, wet meadows, and other wet areas.

(4) Activities across steep areas that lead without flattening to Class I, II, III, or IV watercourses and lakes.

(5) Activities on unstable areas or in connected headwall swales.

(6) Activities near nesting sites of rare, threatened, or endangered bird species.

(7) Activities near significant populations of rare, threatened, or endangered plants.

(8) Ground disturbance, cuts, and fills.

(9) The potential for affecting surface hydrology, including but not limited to, concentrating or diverting runoff or draining the logging road or landing surface directly into a watercourse or lake.

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[10] FPC decision point from March 2010: Standardizes language for intent of minimizing impacts.

(10) Maintenance needs while being compatible with the logging road classification and long-term road usage.

(b) No logging roads or landings shall be planned for construction or reconstruction in Class I, II, III, or IV watercourses or lakes, within a WLPZ, or in marshes, wet meadows, and other wet areas, except as follows:

(1) At existing logging road watercourse crossings.

(2) At constructed or reconstructed logging road watercourse crossings approved as part of the Fish and Game Code process (F&GC 1600 et seq.)

(3) At logging road watercourse crossings of Class III watercourses that are dry at the time of use.

(c) Logging roads and landings shall be planned and located to avoid unstable areas and connected headwall swales. The Director may approve an exception if those areas are unavoidable and site-specific measures to minimize slope instability due to logging road or landing construction or reconstruction are described and justified in the plan.

(d)[11] As part of the planning and use of logging roads and landings, the RPF or supervised designee shall evaluate and document sensitive conditions and significant existing and potential erosion sites, and specify and schedule feasible treatments.

(1) During the field examination of classified watercourses and lakes required under 14 CCR § 916.4 [936.4, 956.4], the RPF or supervised designee shall evaluate watercourse areas near existing, constructed, and reconstructed logging roads and landings for significant existing and potential adverse impacts to sensitive conditions. Sensitive conditions include, but are not limited to, unstable and erodible watercourse banks, unstable upslope areas, channels with inadequate flow capacity, changeable channels, overflow channels, flood prone areas, debris jam potential, aggraded channels, and riparian zones wherein the values set forth in 14 CCR 916.4 [936.4, 956.4], subsection (b) are impaired.

(2) The RPF or supervised designee shall evaluate all logging roads and landings in the logging area, including appurtenant roads, for evidence of significant existing and potential erosion sites.

(3) The RPF shall consider the sensitive conditions and significant existing and potential erosion sites identified by sections 14 CCR § 923.1 [943.1, 963.1] subsections(d)(1) and (2), and

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[11] On January 4, 2011, the FPC determined to include in the Road Rules 2011 proposal for erosion site assessments section 923.1 (d). This decision results in the RRTF proposals in 923.2 (f), the existing ASP rules916.9 (o) and DFG/NMFS proposal in 923.1 (h) being deleted. The FPC found that 923.1 (d) provides additional documentation requirements of erosions sites compared to 916.9 (o). 923.1 (d) requires disclosure of both existing and potential sites, where 916.9 (o) required only “on-going sites”. Also the FPC found that the proposed 923.1(d) requires disclosures of a schedule to treat sites wher (o) does not.

the measures needed to maintain and restore, to the extent feasible, the functions set forth in 14 CCR § 916.4 [936.4, 956.4], subsection (b) when planning logging roads and landings. Key factors to consider as part of developing necessary measures include:

(A) Type of road (permanent all-season, seasonal, or temporary road), road location, expected log truck haul routes, and traffic use (e.g. volume and season) of each road segment during the life of the plan.

(B) Age of road and the history of sediment delivery from existing roads.

(C) Beneficial uses of the watercourse or lake and sensitive conditions potentially affected by the road including, among other things, watercourse classification and presence of listed anadromous salmonids.

(D) The hillslope grade, road grade of crossing approaches and the gradient of the stream channel.

(E) The erodibility of hillslope material exposed by the road, NMFS OPTION 1/3/11 including mass wasting potential of roads in unstable areas such as, but not limited to inner gorges and headwall swales.

(F) The length of hydrologic connectivity of a road segment, the physical properties of the connected segment and the presence or absence of a sediment filter strip along the connected segment.

(G) Site-specific information regarding the condition of and location of all existing or potential sediment sources including,

but not limited to: watercourse crossings, road approaches, ditch relief culverts, road surfaces, road cuts, road fills, inboard ditches, through-cuts, and landings.

(4) The RPF shall describe in the plan feasible protection measures and treatments for identified sensitive conditions that could be affected by roads and landings.

(5) A list of the significant existing and potential erosion sites identified in 14 CCR § 923.1 [943.1, 963.1], subsection (d)(2) which have feasible treatments shall be submitted with the plan and shall require the following information:

(A) A map showing the location(s) of significant existing and potential erosion site(s) with a unique identifier for each site.[12]

(B) Brief description of present condition of the mapped significant existing or potential erosion site.

(C) Brief description of proposed treatments for the mapped significant existing or potential erosion site.

(D) Items (B) and (C) above can be provided in tabular form as part of the plan.

(6) Disclose and map the significant existing and potential erosion sites[13] identified in 14 CCR § 923.1 [943.1, 963.1], subsection (d)(2), for which no feasible treatment measures exist.

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[12] The FPC intent for listing significant existing and potential erosion site(s) with a unique identifier for each site is to allow multiple sites to be grouped together as a single site when descriptions or treatments are all the same for the general location.

[13] The FPC requested inclusion of item (6) which requires listing significant erosion sites that are not planned to be treated. This is necessary to provide a more complete picture to Plan reviewers of impacts related to roads.

(7) Where feasible treatments for significant existing or potential erosion site are proposed, the RPF shall submit a schedule that prioritizes a logical order of treatment. Prioritization of treatments shall be given to sites with increasing erosion risks.

(e) When selecting feasible alternatives (see 14 CCR §§ 897 and 898) during the planning phase of logging roads and landings, the RPF shall consider the location and planned use of logging roads and landings and whether such logging roads and landings will be abandoned or deactivated.

(f) (**RRFT Option)**[14] In watersheds with listed anadromous salmonids and in planning watersheds immediately upstream of, and contiguous to, any watershed with listed anadromous salmonids, where logging road or landing construction or reconstruction is proposed, the plan shall identify:

(1) How the proposed operations will fit into the systematic layout pattern.

(2) What, if any, offsetting mitigation measures, including but not limited to, abandonment of logging roads and landings, are needed to minimize potential adverse impacts to watersheds from the road system.

(g) In watersheds with listed anadromous salmonids no logging roads or landings shall be planned for construction or reconstruction in the CMZ or Core Zone of a Class I watercourse except those listed in 14

[14] FPC decision point from April 2010: Use optional language for consistency with preamble to intent sections in 923. Deletes language adopted in ASP rules in 2009.

CCR § 916.9(e)(1)(A)-(E) [936.9(e)(1)(A)-(E), 956.9(e)(1)(A)-(E)] or pursuant to 14 CCR § 916.9(v) [936.9(v), 956.9(v)].

(h) In watersheds with listed anadromous salmonids within the Inner Zone A and B of flood prone areas of Class I watercourses the following Preferred Management Practices should be considered for inclusion in the plan by the RPF and by the Director:

(1) Constructed and reconstructed logging roads and landings should not be planned for location within these zones.

(2) When feasible, planned use of existing logging roads and landings should be minimized in the flood prone area.

(3) Exceptions include the use of roads and landings to accomplish actions to improve salmonid habitat conditions stated in 14 CCR § 916.9(f)(3)(E)(1) [936.9(f)(3)(E)(1), 956.9(f)(3)(E)(1)].

4-29-11 Road Rules Task Force Plead with FPC edits

Amend § 923.2 [943.2, 963.2]. Design and Implementation for Logging Roads and Landings ~~Road Construction~~.

Constructed and reconstructed logging roads and landings[15] shall be designed and implemented in accordance with their proposed use, maintenance requirements, and the approved plan:

(a) All logging roads and landings shall:

(1) Avoid or mitigate potential impacts to public safety.

(2) Avoid unstable areas and connected headwall swales and minimize activities that adversely affect them.

(3) Minimize cuts and fills to the extent feasible.

(4) Be outsloped where feasible and drained with waterbreaks or rolling dips in conformance with other applicable Forest Practice Rules.

(5) Be hydrologically disconnected from watercourses and lakes to the extent feasible.[16]

(6) **Staff Proposal 4/20/11** Include adequate drainage structures and facilities[17] necessary to avoid concentrating and diverting runoff, to minimize erosion of roadbeds, landing surfaces, drainage ditches, sidecast and fills, to minimize the potential for soil erosion and sediment transport, and to prevent significant sediment discharge.

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[15] FPC decision point from May 2010: Rejected DFG comments to widen application of design standards to ALL roads and instead retained focus on roads to be constructed or reconstructed.

[16] FPC decision point from May 2010: Inserts portion of DFG recommendation to include requirement for "hydrological disconnection. Other specifics on how to accomplish hydro-disconnection were not accepted by FPC.

[17] FPC decision point from May 2010: Rejects DFG option to include "road rocking" as a method for adequate drainage structure. FPC desires to retain performance standard language to allow maximum flexibility to implement technologies that accomplish the intent of sections to provide adequate drainage structures and facilities.

(7) Avoid crossing, or locations on, 100 feet or more of lineal distance over any slopes greater than 65 percent or within 100 feet of the boundary of a WLPZ on slopes greater than 50 percent that drain toward the zoned watercourse or lake. Where logging road or landing construction or reconstruction is necessary in these areas, specific measures to minimize movement of soil and the discharge of concentrated surface runoff shall be incorporated in the plan. The Director may waive inclusion of such measures where the RPF can show that slope depressions, drainage ways, and other natural retention and detention features are sufficient to control overland transport of eroded material.

(b) The Director may require removal of deposits of excess material if the deposits are in a position to adversely affect the beneficial uses of water and if the removal of the material is feasible.

(c) **Staff Proposal 4/20/11**Excess material excavated during logging road and landing construction shall not be transported to disposal sites where it may ~~will~~ result in significant sediment discharge.

(d) In addition to the requirements of subsection (a) above, all constructed and reconstructed logging roads shall:

(1) Be no wider than a single-lane compatible with the largest type of equipment specified for use on the logging road, with adequate turnouts provided as required for safety unless prohibited by existing contracts with the U.S.D.A. Forest Service or other federal agency.

(2) Avoid grades greater than 20% or grades greater than 15% that extend greater than 500 continuous feet. Exceptions may be approved where there is no other feasible access for harvesting of timber or

where use of a gradient greater than 20% will serve to reduce soil disturbance.

(e) In addition to the requirements of subsection (a) above, all constructed and reconstructed landings shall:

(1) Be consistent with the yarding and loading system to be used.

(2) Be no larger than one-half acre.

(3) Avoid construction on slopes greater than 40 percent where the landing will exceed one-quarter acre in size.

Amend § 923.3 [943.3, 963.3]. Mapping and Identification for Logging Roads and Landings ~~Watercourse Crossings~~.

The following mapping and identification standards shall apply to logging roads and landings:

(a) For logging road- and landing-related mapping requirements refer to 14 CCR §§ 1034(x)(4)(A)-(B) and (5)(A)-(L), 1090.5(w)(4)-(6), 1090.5(hh), 1090.7(n)(4)-(6), and 1092.09(l)(5)(A)-(B) and (6)(A)-(L).

(b) For logging road- and landing-related disclosure and description requirements refer to 14 CCR §§ 1034(bb), **RRTF Option 1** 1034(hh) (**RRTF Option 2** If Option 1 under 1034(hh) is not adopted, do not adopt Option 1), 1034(ii)(1)-(5), 1034(jj)(1)-(17), 1034(kk)(1)-(3) and (4)(A), 1034(mm) and 1090.5(gg).

(c) RRTF Option 1 For logging road- and landing-related identification requirements refer to 14 CCR § 1034(hh). (**RRTF Option 2** If Option 1 under 1034(hh) is not adopted, do not adopt the

contents of subsection 923.3(c) [943.3(c), 963.3(c)] proposed under Option 1 and and begin re-numbering subsection (d) as (c) and (e) as (d).)

(d) The RPF shall identify in the field all constructed and reconstructed logging roads and landings:

(1) Across slopes greater than 65 percent for 100 lineal feet or more.

(2) Across slopes greater than 50 percent for 100 lineal feet or more within 100 feet of the boundary of a WLPZ that drains toward the zoned watercourse or lake.

(e) The location of all logging roads to be constructed or reconstructed shall be flagged or otherwise identified on the ground **RRTF Option 1:** before submission of a plan or substantial deviation **RRTF Option 2:** prior to the pre-harvest inspection, if necessary, or prior to logging road construction or reconstruction). Exceptions may be explained and justified in the plan and agreed to by the Director if flagging is unnecessary as a substantial aid to examining: (1) compatibility between logging road location and yarding and silvicultural systems, or (2) possible significant adverse effects of logging road location on the factors listed under 14 CCR § 923(b) [943(b), 963(b)].

4-29-11 Road Rules Task Force Plead with FPC edits

Amend § 923.4 [943.4, 963.4]. Construction and Reconstruction for Logging Roads and Landings ~~Road Maintenance~~.

Logging roads and landings shall be constructed or reconstructed in accordance with the approved plan and the following requirements. If a change in designation of logging road classification is made after the plan is approved, the change shall be reported in accordance with 14 CCR §§ 1039, 1040, 1090.14, 1092.26 or 1092.27, as appropriate.

(a) Logging roads and landings shall not be constructed or reconstructed where such operations pose a significant risk to public safety.

(b) Logging roads or landings shall not be constructed or reconstructed in Class I, II, III, or IV watercourses or lakes, the WLPZ, marshes, wet meadows, or other wet areas, except for logging road watercourse crossings or as specified in the plan.[18]

(c) Logging roads and landings shall not be constructed or reconstructed across unstable areas or connected headwall swales.

(d) Logging roads and landings shall not be constructed with overhanging banks.

(e) Any tree over 12 inches dbh with more than 25 percent of the root surface exposed by logging road or landing construction shall be felled concurrently with the timber operations.

(f) On slopes greater than 40 percent, the organic layer of the soil shall be removed prior to fill placement.

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[18] Option for 150 foot distance from WTL for new road construction recommended by Staff and science team.

(g) Waste organic material, such as uprooted stumps, cull logs, accumulations of limbs and branches, and unmerchantable trees, shall not be buried in logging road or landing fills. Wood debris or cull logs and chunks may be placed and stabilized at the toe of fill to restrain excavated soil from moving downslope.

(h) Slash and other debris from road construction shall not be bunched against residual trees, which are required for silvicultural or wildlife purposes, nor shall it be placed in locations where it could be discharged into Class I or II watercourses or lakes.

(i) Where constructed fills will exceed three feet in vertical thickness, fill slopes shall be inclined no greater than 65 percent.

(j)[19] **Staff Proposal 4/20/11** **Lo**gging roads or landings shall not be constructed or reconstructed under saturated soil conditions. ~~that may produce sediment in quantities sufficient to cause a visible increase in turbidity of downstream waters in receiving Class I, II, III or IV waters or that violate Water Quality Requirements~~, except that construction may occur on isolated wet spots arising from localized ground water such as springs, provided measures are taken to prevent significant sediment discharge.

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[19] The language shown is a combination of 923.2 (r) and 923.5 (e) that were adopted by the BOf on 9/7/10. These two sections are existing Firs for construction of roads and construction of landings. They were merged here to consistency with e format the RRTF suggested.

(1) Construction or reconstruction operations shall not be conducted when saturated soils do not allow meeting standard engineered compaction methods.[20]

(k) Construction or reconstruction of logging roads or landings shall not take place during the winter period unless the approved plan incorporates a complete winter period operating plan pursuant to 14 § CCR 914.7 [934.7, 954.7], subsection (a) that specifically addresses such logging road or landing construction or reconstruction.

(l) On slopes greater than 50 percent for greater than 100 lineal feet, fills greater than four feet in vertical height at the outside shoulder of the logging road or landing shall be:

(1) Constructed on a bench that is excavated at the proposed toe of the fill and is wide enough to compact the first lift.

(2) Compacted in approximately one-foot lifts from the toe to the finished grade or retained by an engineered structure.

(m) Logging roads and landings shall not be constructed or reconstructed across 100 feet or more of lineal distance on any slope greater than 65 percent or within 100 feet of the boundary of a WLPZ on slopes greater than 50 percent that drain toward the zoned watercourse or lake unless specific construction techniques or measures are described in the plan.

(n) Fills shall not be constructed on slopes greater than 65 percent.

(o) On slopes greater than 65 percent, sidecast from logging road and landing construction shall be minimized to the degree feasible.

[20] Subsection 923.4 (j)(1) is added to ensure that construction standards are maintained during operations on saturated soils.

(p) Excess material transported from logging road or landing construction or reconstruction shall be deposited and stabilized in a manner and in areas that avoid potential adverse impacts to:

(1) Public safety.

(2) **Staff Proposal 4/20/11** Areas that could deliver significant sediment discharge.

(q) Where conditions are encountered during logging road or landing construction or reconstruction that differ from what was anticipated during the preparation and review of the plan and that will result in a significant adverse impact on the environment or to public safety, the LTO shall inform the RPF or plan submitter of these unanticipated conditions in accordance with 14 CCR § 1035.3. If necessary, the responsible RPF or plan submitter shall submit to the Director a deviation to the plan describing the unanticipated conditions and proposing appropriate actions.

(r) In watersheds with listed anadromous salmonids, no logging roads or landings shall be constructed or reconstructed within the CMZ or Core Zone of a Class I watercourse except for those listed in 14 CCR § 916.9([936.9, 956.9]subsections (e)(1)(A)-(F) or pursuant to 14 CCR **§** 916.9[936.9, 956.9], subsection (v).

(s) In watersheds with listed anadromous salmonids and in planning watersheds immediately upstream of, and contiguous to, any watershed with listed anadromous salmonids, the following shall apply:

(1) On slopes greater than 50 percent that have access to a watercourse or lake:

(**A)** Specific provisions shall be identified and described for all logging road construction.

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

(C) Logging roads may be constructed with balanced cuts and fills:

(i) If properly engineered, or,

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

(2) During the extended wet weather period, no timber operations shall take place unless the approved plan incorporates a complete winter period operating plan pursuant to 14 CCR § 914.7[934.7, 954.7]subsection (a) that specifically addresses, where applicable, proposed logging road or landing construction, reconstruction. [21]

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[21] DFG comment for adding 923.4 (s) (3) contained in the May 20 2010 version was deleted(**(3 DFG Option)** No road or landing construction, reconstruction, or decommissioning shall be undertaken during the extended wet weather period, or at any time outside this period when saturated soil conditions exist, except on hydrologic ally disconnected road segments.) The subsection was deleted because it content is already contained in 923.4 (j) and

4-29-11 Road Rules Task Force Plead with FPC edits

Amend § 923.5 [943.5,963.5]. Erosion Control for Logging Roads and Landings ~~Landing Construction~~.

The following erosion control standards shall apply to logging roads and landings:

(a) All logging road and landing surfaces shall be adequately drained through the use of surface geometry configurations in combination with the installation of drainage structure or facilities[22] and shall be hydrologically disconnected from watercourses and lakes to the extent feasible.[23]

(b) **Staff Proposal 4/20/11** Drainage facilities or ditch drains shall be installed along all logging roads and all landings that are used for timber operations in sufficient number to minimize soil erosion and sediment transport and to prevent significant sediment discharge.

(c) Ditch drains, associated necessary protective structures, and other features associated with the ditch drain shall:

(1) Be adequately sized to transmit runoff.

(2) Minimize erosion of logging road and landing surfaces.

(3) Avoid discharge onto fill.

(4) DFG Option: Drain to stable sediment filter strips[24].

923.4 (s) (2). The mention of hydrologic disconnection was added by the FPC in 923.2 (a) (5)

[22] Added "facilities for consistency with other sections. This is a more encompassing term for all type of drainage features associated with a road.

[23] Amendments to subsection 923.5 (a) were added to include the CGS amendment for hydrologic disconnection for drainage facilities.

[24] CGS recommends rejection of these Options as it is covered in 923.5 (h)

(4)(5) Minimize potential adverse impacts to slope stability.

(d) Waterbreaks and rolling dips installed across logging roads and landings shall be of sufficient size and number and be located to **DFG Option:** drain to stable sediment filter strips and[25] avoid collecting and discharging concentrated runoff onto fills, erodible soils, unstable areas, and connected headwall swales.

(e) Where logging roads or landings do not have permanent and adequate drainage, and where waterbreaks are to be used to control surface runoff, the waterbreaks shall be cut diagonally a minimum of six inches into the firm roadbed and shall have a continuous firm embankment of at least six inches in height immediately adjacent to the lower edge of the waterbreak cut. On logging roads that have firmly compacted surfaces, waterbreaks may be installed by hand methods and need not provide the additional six-inch embankment provided the waterbreak ditch is constructed so that it is at least six inches deep and six 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 logging road surface without the embankment.

(f) RRTF Option 1: Distances between waterbreaks shall not exceed the standards specified in 14 CCR § 914.6(c) [(934.6(c), 954.6(c)].

RRTF Option 2: Distances between waterbreaks shall not exceed the following standards:

[25] CGS recommends rejection of these Options as it is covered in 923.5 (h).

MAXIMUM DISTANCE BETWEEN WATERBREAKS

Estimated Hazard Rating	**Logging Road Gradient in Percent**		
	10 or less	**11-25**	**>25**
	Feet	Feet	Feet
Extreme	100	75	50
High	150	100	75
Moderate	200	150	100
Low	300	200	150)

(g) **Staff Proposal 4/20/11** Where outsloping and rolling dips are used to control surface runoff, the dip in the logging road grade shall be sufficient to capture runoff from the logging road surface. The steepness of cross-slope gradient in conjunction with the logging road or landing gradient and the estimated soil erosion hazard rating shall be used to determine the rolling dip spacing in order to minimize soil erosion and sediment transport and to prevent significant sediment discharge.

(h) Drainage facilities and ditch drains shall discharge into vegetation or rock wherever possible. Where erosion-resistant material is not present, slash, rock, or other energy dissipating material shall be installed below the drainage facility or drainage structure outlet.

(ii) indexing placeholder) **(CGS Option revised by FPC on 10/6/10 and Staff on 4/20/11)** Where logging road and landing surfaces, road approaches[26], inside ditches and drainage structures cannot be hydrologically disconnected, and where there is existing or the potential for significant sediment discharge, necessary and feasible treatments to prevent the discharge will be described in the plan.

(i) All logging roads and landings used for timber operations shall have adequate drainage upon completion of use for the year or by October 15, whichever is earlier. An exception is that drainage facilities and drainage structures do not need to be constructed on logging roads in use **DFG OPTION** ~~after October 15~~ during the extended wet weather period provided that all such drainage facilities and drainage structures are installed prior to the start of rain that generates overland flow.

(j) Where logging road or landing construction or reconstruction takes place **DFG OPTION** ~~from October 15 to May 1~~ during the extended wet weather period, drainage facilities and drainage structures shall be installed concurrent with construction or reconstruction operations.

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[26] Inclusion this subsection recommended by the FPC in at the July 6th, 2010 committee meeting is to address surface erosion and for roads in all locations. Amendments were made to this section as a result of discussion at August 27 2010 RRTF subcommittee meeting. This subsection is currently being reviewed in context with 923.5 (p)(4)and (5) proposed amendments by DFG address and similar requirements for ASP watersheds. On 9/7/10, the FPC included the term “Road Approaches” to the subsection to ensure clarity and focus attention on the critical need to address road approaches for surface erosion preventions. Also at this meeting the FPC directed staff to reorganize the wording for clarity and proper language usage.

(k) Staff Proposal 4/20/11 Bare soil on logging road or landing cuts, fills, transported spoils, or sidecast that is created or exposed by timber operations shall be stabilized to the extent necessary to minimize soil erosion and sediment transport and to prevent significant sediment discharge. Bare soil stabilization treatments for road surfaces are addressed in other subsection.[27] Sites to be stabilized include, but are not limited to:

(1) Sidecast or fill exceeding 20 feet in slope distance from the outside edge of a logging road or a landing that has access to a watercourse or lake.

(2) Cut and fills associated with approaches to logging road watercourse crossings[28] of Class I or II waters or Class III waters where an ELZ, EEZ, or a WLPZ is required.

(3) Bare areas exceeding 800 continuous square feet within a WLPZ.

(l) Soil stabilization measures shall be described in the plan pursuant to 14 CCR 923.5(k)[943.5,963.5], subsection (k) and may include, but are not limited to, removal, armoring with rip-rap, replanting, mulching, seeding, installing commercial erosion control devices to manufacturer's specifications, or chemical stabilizers.

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[27] Recommended edits based RRTF meeting 8/26/10. Clarifies that this is section is intended to apply to portions of the road other than the road surface. Requirements for treating road surfaces are dealt with in other subsections.

[28] Recommended edits based RRTF meeting 8/26/10. Clarifies that this is section is intended to apply to portions of the road other than the road surface. Requirements for treating road surfaces are dealt with in other subsections.

(m) Where the natural ability of ground cover within a WLPZ is inadequate to protect the beneficial uses of water by minimizing soil erosion or by filtering sediments, the plan shall specify protection measures to retain and improve the natural ability of the ground cover to filter sediment and minimize soil erosion.

(n) Soil stabilization treatments shall be in place upon completion of operations for the year of use or prior to **DFG OPTION** ~~October 15~~ the extended wet weather operating period, whichever comes first. An exception is that bare areas created **DFG OPTION** ~~after October 15~~ during the extended wet weather operating period shall be treated within 10 days or as agreed to by the Director.

(o) **Staff Proposal 4/20/11** Overhanging or unstable concentrations of slash, woody debris or soil along the downslope edge or face of landings shall be removed or stabilized when it is located on slopes greater than 65 percent or within 100 feet of the boundary of a WLPZ on slopes greater than 50 percent that drain toward the zoned watercourse or lake. Removed materials shall not be placed at disposal sites that could result in a significant sediment discharge.

(p) In watersheds with listed anadromous salmonids and in planning watersheds immediately upstream of, and contiguous to, any watershed with listed anadromous salmonids, the following shall apply:

(1) Constructed and reconstructed logging roads shall be outsloped where feasible and drained with waterbreaks or rolling dips **CGS Option** ~~(where the road grade is inclined at seven (7) percent or less)~~ in conformance with other applicable Forest Practice Rules.

(2) In addition to the provisions listed under 14 CCR § 923.2(d)(2) [943.2(d)(2), 963.2(d)(2)], all permanent and seasonal logging roads with a grade of 15 percent or greater that extend 500 continuous feet or more shall have specific erosion control measures stated in the plan.

(3) **Staff Proposal 4/20/11** Within the WLPZ, and within any ELZ or EEZ designated for watercourse or lake protection, treatments to stabilize soils, minimize soil erosion, and prevent significant sediment discharge shall be described in the plan as follows:

(A) In addition to the requirements of subsections (k)-(o), soil stabilization is required for the following areas:

(i) Areas exceeding 100 continuous square feet where timber operations have exposed bare soil, and

(ii) Disturbed logging road and landing cut banks and fills, and

(iii) **Staff Proposal 4/20/11** Any other area of disturbed soil that threatens to cause significant sediment discharge.

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

(C) Where slash mulch is packed into the ground surface through the use of a tractor or equivalent piece of heavy equipment the minimum slash coverage shall be 75 percent,**DFG OPTION** and any treated area that has been reused or has less than 75 percent surface cover shall be treated again by the end of timber operations.

(D) **Staff Proposal 4/20/11** For areas disturbed **DFG OPTION** ~~from May 1 to October 15~~ outside of the extended wet weather period, treatment shall be completed prior to the start of any rain that causes overland flow across or along the disturbed surface that could result in significant sediment discharge.

(E) For areas disturbed **DFG OPTION** ~~from October 15 to May 1~~ during the extended wet weather period, treatment shall be completed prior to any day for which a chance of rain of 30 percent or greater is forecast by the National Weather Service or within 10 days of disturbance, whichever is earlier.

(F) Where the natural ability of ground cover is inadequate to protect the beneficial uses of water by minimizing soil erosion or by filtering sediments within any ELZ or EEZ designated for watercourse or lake protection, the plan shall specify protection measures to retain and improve the natural ability of the ground cover to filter sediment and minimize soil erosion.

(4) DFG Option Logging road approach surfaces that are not hydrologically disconnected for permanent roads shall consist of high-quality, durable, compacted rock or paving except where site-specific alternatives are explained, justified and approved by the Director[29].

(5) Logging road approach surfaces not hydrologically disconnected for seasonal roads crossing Class I watercourses or any roads used for hauling by heavy equipment during the extended wet weather period shall consist of high-quality, durable, compacted rock or paving

[29] Adds "opt-out" language for use by RPF to use an alternative to rocking approaches.

when one or more of the following factors[30] are present. Exceptions where site-specific alternatives are explained, justified may be approved by the Director:

(i) New road construction or there is a history of significant sediment delivery from existing roads.

(ii) High volume of use (discussion needed on specifics).

(iii) The road grade of road approaches exceeds 7 % gradient.

(iv) The hillslope and road surface exposed is composed of highly erodible material as such as decomposed granite.

(6) Logging road approach surfaces on (i) all seasonal roads used for hauling in the current year, (ii) all seasonal roads used during the extended wet weather period for purposes other than hauling shall be treated with either: rock, slash, seed and straw mulch, seed and stabilized straw, or seed and slash.

(7) Logging road approaches to temporary crossings shall be stabilized and maintained after crossing removal to avoid rutting or pumping fines during administrative use after removal.

(8) Logging road approach ditches exhibiting downcutting for (i) permanent logging roads, (ii) seasonal roads crossing Class I watercourses, and (iii) logging roads used for hauling during the extended wet weather period shall be lined with high-quality, durable rock, installed with erosion control materials or structures to

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[30] Presence of any one of these factors would "trigger" the rocking of road approach surface. Age of road, wet weather use, traffic levels, parent material, and road gradient were identified as critical factors by the RRTF.

manufacturers specifications, or treated with other effective means as described in the plan.

Staff Proposal 4/20/11

Amend § 923.6 [943.6, 963.6]. Use of Logging Roads and Landings

~~**Conduct of Operations on Roads and Landings**~~**.**

The following use standards shall apply to logging roads and landings:

(a) Logging roads and landings shall be used in a manner that is consistent with their design and construction specifications.

(b) Logging roads and landings shall not be used during any time of the year when operations may result in significant sediment discharge to watercourse or lakes[31], except in emergencies to protect the road, to reduce erosion, to protect water quality, or in response to public safety needs.

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[31] (add to 895.1) **Significant sediment discharge** means sediment that is currently, or may be in the future, discharged to watercourses or lakes in quantities that violate of Water Quality Requirements or result in significant individual or cumulative adverse impacts to the beneficial uses of water.

(c) Log hauling or other heavy equipment uses[32] shall be limited to on logging roads and landings which are hydrologically disconnected from watercourses to the extent feasible and exhibit a stable operating surface[33]. Use may occur on limited segments of roads or landings that do not exhibit a stable operating surface when the road segment or landing is completely, and at all times, hydrologically disconnected from a watercourse and equipment can operate under its own power[34].

(d) When burning permits are required pursuant to PRC § 4423, logging roads and landings that are in use shall be kept in passable condition for fire trucks.

(e) All roadside berms shall be removed or breached before the beginning of the winter period, with the exception of berms needed for erosion control.

(f) Temporary roads shall be blocked or otherwise closed (**RRTF Option 1)** to normal vehicular traffic (**RRTF Option 2)** standard production four-wheel drive highway vehicles) prior to the winter period.

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[32] Terminology for "other heavy equipment" was added in various sections to provide clarity that the requirements for road use apply not only for log hauling but also for other heavy equipment uses such as low bed transport equipment, watertrucks, skidding or walking skidders.

[33] Requirements for road use on saturated soils were deleted in favor of using Stable Operating Surface. Requirements for both saturated soils and stable operating surface conflicted.

[34] Exceptions are permitted for use on limited road segments or landings that are completely (voiding the "to the extent feasible") and at all times, (meaning before during and after use) hydrologically disconnected and equipment can operate under its own power.

(g) Logging roads and landings used for log hauling or other heavy equipment uses during the winter period shall be, where necessary, surfaced with rock to a depth and quantity sufficient to maintain a stable operating surface. Use may occur when logging roads and landings are generally firm and easily passable or during hard frozen conditions. Isolated wet spots on these logging roads or landings shall be rocked or otherwise treated to permit passage[35]. Exceptions may be proposed by the RPF, when locations are disclosed and justified in the THP, consistent with 14 CCR 923.6 (c)[36], and approved by the Director.

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[35] This section addresses winter road use. This section was developed from existing FPR sections 923.2 (t) and 923.6. The intent is winter period road use shall require rocking where necessary to maintain a stable operating surface. Implied in this subsection is rocking during the winter is not always mandatory. Rocking would not be mandatory when conditions are firm/passable and operations are on a stable operating surface (such as during dry periods in the winter). Conversely, if conditions are wet, and the road use surface is not a stable operating surface, then rocking is required.

[36] Exceptions allowing road use on roads which are not on a stable operating surface are permitted as previously stated in 923.6(c). Such exception during the winter period require disclosure and justification in the plan and approval by the Director.

(h) In watersheds with listed anadromous salmonids and in planning watersheds immediately upstream of, and contiguous to, any watershed with listed anadromous salmonids[37], the following shall apply:

(1) Existing logging roads or landings shall not be used within the CMZ of a Class I watercourse except as listed in 14 CCR § 916.9 916.9 [936.9, 956.9]subsection (e)(1)(A)-(F) or pursuant to 14 CCR § 916.9(v) [936.9(v), 956.9(v)].

(2) When feasible, minimize use of existing logging roads and landings located within Inner Zones A and B of flood prone areas. Exceptions include the use of roads and landings to accomplish actions to improve salmonid habitat conditions stated in 14 CCR § 916.9 916.9(f)(3)(E)(1.) [936.9(f)(3)(E)(1.), 956.9(f)(3)(E)(1.)]

(3) Concurrent with use for log hauling or other heavy equipment uses, all[38] road approaches to logging road watercourse crossings shall be treated for erosion control as needed to minimize soil erosion and sediment transport and prevent significant sediment discharge to water courses or lakes.

(4) Concurrent with use for log hauling or other heavy equipment uses, all traveled surfaces of logging roads in a WLPZ, and ELZ or EEZ designated for watercourse or lake protection, or the appurtenant

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[37] All ASP specific road use erosion control rules are applied to both ASP watersheds upstream contiguous watersheds.

[38] Language is added (923.6 (h)(3)) to specify that all road approaches shall be treated for erosion control, not just those which are hydrologically connected (as required by 923.5 (ii)).

roads associated with undesignated watercourses[39], shall be treated for erosion control as needed to minimize soil erosion and sediment transport and to prevent significant sediment discharge to watercourses or lakes.

(5) No timber operations shall take place during the extended wet weather period unless the approved plan incorporates a complete winter period operating plan pursuant to 14 CCR § 914.7(a) [934.7(a), 954.7(a)] that specifically addresses, where applicable, proposed logging road or landing use.

Amend § 923.7, 943.7, 963.7 Maintenance and Monitoring for Logging Roads and Landings

The following maintenance and monitoring standards shall apply to logging roads and landings:

(a) **Staff Proposal 4/20/11** Logging road and landing surfaces shall be maintained during timber operations and throughout the prescribed maintenance period to minimize soil erosion and sediment transport and to prevent significant sediment discharge.

(b) Logging roads that are used in connection with stocking activities shall be maintained throughout such use, even if this extends beyond the prescribed maintenance period.

(c) Maintenance treatments to the running surfaces of logging roads and landing surfaces shall be described in the plan and may include,

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39 DFG option to address road used for hauling near watercourses that are appurtenant roads and currently not subject to this provision. Allow a variable treatment area for appurtenant road watercourse crossings.

but not be limited to, rocking, watering, paving, chemically treating, or installing commercial erosion control devices to manufacturer's specifications.

(d) Drainage facilities and drainage structures, including associated necessary protective structures, shall be maintained to allow free flow of water and minimize soil erosion or they shall be repaired, replaced, or installed **DFG OPTION** as soon as feasible, the the when maintenance is needed to protect the quality and beneficial uses of water.

(e) Waterbreaks shall be maintained as specified in 14 CCR § 914.6 [934.6, 954.6]subsection (h).

(f) **Staff Proposal 4/20/11** Soil stabilization treatments on logging road or landing cuts, fills, and sidecast shall be maintained as needed to minimize soil erosion and sediment transport and to prevent significant sediment discharge.

(g) **Staff Proposal 4/20/11** Actions shall be taken as needed to reduce the potential for failures of cuts, fills, or sidecast that could result in significant sediment discharge.

(h) Heavy equipment shall not be used in a WLPZ for maintenance during wet weather, except in emergencies to protect the road, to reduce erosion, to protect water quality, or in response to public safety needs.

(i) **Staff Proposal 4/20/11** Where evidence of substantial soil erosion and significant sediment discharge is present along a logging road or landing used for timber operations, additional drainage facilities and structures shall be installed as needed to minimize

soil erosion and sediment transport and to prevent significant sediment discharge.

(j) The prescribed maintenance period for erosion controls on permanent and seasonal logging roads and associated landings and drainage structures, which are not abandoned or deactivated in accordance with 14 CCR §§ 923.8 [943.8, 963.8] and 923.17 [943.17, 963.17], shall be at least one year. The Director may prescribe a maintenance period extending up to three years in accordance with 14 CCR § 1050.

(k) Logging roads, landings, and associated drainage structures used for timber operations shall be monitored as needed to comply with 14 CCR § 1050.

(l) In watersheds with listed anadromous salmonids, water drafting for timber operations shall:

(1) Comply with Fish and Game Code Section 1600, et seq. Timber operations conducted under a Fish and Game Code Section 1600 master or long-term agreement that includes water drafting may provide proof of such coverage for compliance with this paragraph and 14 CCR 923.7(L)(2).

(2) Describe the water drafting site conditions and proposed water drafting activity in the plan, including:

(A) A general description of the conditions and proposed water drafting;

(B) The watercourse classification;

(C) The drafting parameters including the months the site is proposed for use; estimated total volume needed per day; estimated

maximum instantaneous drafting rate and filling time; and disclosure of other water drafting activities in the same watershed;

(D) The estimated drainage area (acres) above the point of diversion;

(E) The estimated unimpeded streamflow, pumping rate, and drafting duration,

(F) a discussion of the effects on aquatic habitat downstream from the drafting site(s) of single pumping operations, or multiple pumping operations at the same location, and at other locations in the same watershed;

(G) A discussion of proposed alternatives and measures to prevent adverse effects to fish and wildlife resources, such as reducing hose diameter; using gravity-fed tanks instead of truck pumping; reducing the instantaneous or daily intake at one location; describing allowances for recharge time; using other dust palliatives; and drafting water at alternative sites;

(H) The methods that will be used to measure source streamflow prior to the water drafting operation and the conditions that will trigger streamflow to be measured during the operation.

(3) All water drafting for timber operations are subject to each requirement below unless the Department of Fish and Game modifies the requirement in the Lake or Streambed Alteration agreement that authorized the drafting operation, or unless otherwise specified below:

(A) All intakes shall be screened to prevent impingement of juvenile fish against the screen. The following requirements apply to

screens and water drafting on Class I waters:

(i) Openings in perforated plate or woven wire mesh screens shall not exceed 3/32 inches (2.38 millimeters). Slot openings in wedge wire screens shall not exceed 1/16 inches (1.75 millimeters).

(ii) The screen surface shall have at least 2.5 square feet of openings submerged in water.

(iii) The drafting operator shall regularly inspect, clean, and maintain screens to ensure proper operation whenever water is drafted.

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

(v) The diversion rate shall not exceed 350 gallons per minute.

(B) Approaches and associated drainage features to drafting locations within a WLPZ or channel zone shall be surfaced with rock or other suitable material to minimize generation of sediment.

(C) Barriers to sediment transport, such as straw waddles, logs, straw bales or sediment fences, shall be installed outside the normal high water mark to prevent sediment delivery to the watercourse and limit truck encroachment.

(D) **DFG OPTION** Water drafting trucks parked on streambeds or floodplains During water drafting, parked water trucks shall use drip pans or other devices such as adsorbent or absorbent blankets, sheet barriers or other materials as needed to prevent soil and water contamination from motor oil or hydraulic fluid leaks.

(E) Bypass flows for Class I watercourses shall be provided in volume sufficient to avoid dewatering the watercourse and maintain aquatic life downstream, and shall conform to the following standard:

(i) Bypass flows in the source stream during drafting shall be at least 2 cubic feet per second.

(ii) Diversion rate shall not exceed 10 percent of the surface flow.

(iii) Pool volume reduction shall not exceed 10 percent.

(F) The drafting operator shall keep a log that records for each time water is drafted, the date, total pumping time, pump rate, starting time, ending time, and volume diverted. Logs shall be filed with the Department of Forestry and Fire Protection at the end of seasonal operations and maintained with the plan record. This requirement may be modified in the approved plan that covers the water drafting, but only with concurrence from the Department of Fish and Game.

(G) Before commencing any water drafting operation, the RPF and the drafting operator shall conduct a pre-operations field review to discuss the water drafting measures in the plan and/or Lake or Streambed Alteration Agreement.

(m) In watersheds with listed anadromous salmonids and in planning watersheds immediately upstream of, and contiguous to, any watershed with listed anadromous salmonids, the following shall apply:

(1) Grading logging roads or landings to obtain a drier running surface more than one time before reincorporation of any resulting berms back into the road surface is prohibited.

(2) The erosion control maintenance period on permanent and seasonal logging roads and associated landings that are not abandoned or deactivated in accordance with 14 CCR § 923.8 [943.8, 963.8] shall be three years.

(1) DFG Option Inboard ditches shall be graded only when they are blocked or lack adequate inside ditch hydraulic capacity, or driver safety is a concern. Where feasible, blading the segment of ditch between the watercourse and first drainage facility shall be avoided.

(2) Grading logging roads or landings to obtain a drier running surface more than one time before reincorporation of any resulting berms back into the road surface is prohibited. **DFG Option G**rading of logging road surfaces shall occur only when necessary to achieve a uniform, stable, and well-drained operating surface. Grading logging roads or landings to obtain a drier running surface is prohibited.

(3) The erosion control maintenance period on permanent and seasonal logging roads and associated landings that are not abandoned or deactivated in accordance with 14 CCR § 923.8 [943.8, 963.8] shall be three years.

(4) All logging roads within the plan area and appurtenant to proposed operations shall be inspected:

(A) by the LTO at least twice annually – once outside the extended wet weather period, and at least once during the extended wet

weather period following the first storm event producing bankfull stage and prior to completion of operations; Information produced for other permitting requirements may be used to satisfy this subsection.

(B) by the timberland owner during the same time periods for the remainder of the prescribed maintenance period.

The inspection shall be started as soon as conditions permit access to ensure that drainage structures and facilities are functioning to hydrologically disconnect the road prism from waters. Inspection results and follow up corrective measures shall be documented and shall be provided to CAL FIRE.

(C) Forest floor discharge sites below the outlets of drainage facilities on all roads within the plan area and appurtenant to proposed operations shall be inspected by the LTO for evidence of sediment delivery to Class I, II, or III watercourses and lakes. If evidence of sediment delivery is present, additional cross drains, waterbars, or rolling dips shall be installed to reduce the discharge volume to the site.

(5) Decommissioned roads shall be inspected following the first storm event producing bankfull stage after decommissioning and again prior to filing the completion report. The purpose of the inspection will be to verify the effectiveness of treatments in preventing sediment discharges to waters and to ensure treatments are functioning to restore natural drainage and hillslope stability. If treatments are found to be ineffective prior to the end of the prescribed maintenance period, further treatments shall be applied if the volume

of sediment prevented from entering a channel by additional treatments is greater than that incurred by re-entering the site.

Amend **§ 923.8[943.8, 963.8]. Abandonment and Deactivation of Logging Roads and Landings.**

All logging roads and landings that are proposed to be removed from the permanent road network, including historic roads and landings, shall be abandoned. All temporary logging roads and landings that are to remain a part of the permanent road network shall be deactivated prior to the winter period or upon completion of timber operations, whichever comes first. Other logging roads and landings proposed to be deactivated shall comply with the standards specified in this section. Where abandonment or deactivation is required or proposed, specific measures used to apply the following general requirements shall be described in the plan:

(a) All abandoned and deactivated logging roads shall be left in a condition that provides for long-term functioning **DFG Option** maintenance-free drainage of erosion controls.

(b) **Staff Proposal 4/20/11** Soil exposed by abandonment or deactivation operations on cuts, fills, and sidecast shall be stabilized as needed during and upon completion of abandonment or deactivation operations to minimize soil erosion and sediment transport and to prevent significant sediment discharge.

(c) Logging road and landing surfaces shall be graded or shaped where needed to disperse runoff.

(d) **Staff Proposal 4/20/11** Fills or sidecast shall be pulled or shaped where site conditions indicate that there is a reasonable potential for perched materials to enter a watercourse or lake and result in a significant sediment discharge.

(e) **Staff Proposal 4/20/11** Logging road watercourse crossings, other drainage structures, and associated fills shall be removed and stabilized in accordance with 14 CCR § 923.17 [943.17, 963.17]subsections (a)-(c). Where it is not feasible to remove drainage structures and associated fills, the plan shall identify how the potential for soil erosion and sediment transport will be minimized and how significant sediment discharge will be prevented.

(f) Logging roads to be abandoned or deactivated shall be blocked prior to the winter period so that standard production four wheel-drive highway vehicles cannot pass the point of closure at the time of abandonment or deactivation. If the logging road is to be abandoned, then the blockage design shall be described in the plan.

Amend **§ 923.9 [943.9, 963.9]. Licensed Timber Operator Responsibility for Logging Roads and Landings.**

The licensed timber operator who is responsible for the implementation or execution of the plan shall be responsible for the construction and maintenance of logging roads and landings, unless another licensed timber operator is employed for that purpose and amended into the plan as the responsible party.

4-29-11 Road Rules Task Force Plead with FPC edits

Adopt § 923.10 [943.10, 963.10]. Planning for Logging Road Watercourse Crossings.

The following planning standards shall apply to logging road watercourse crossings:

(a) Logging road watercourse crossings shall be planned and located within the context of a systematic logging road layout pattern.

(b) Logging road watercourse crossings shall be planned in a manner that is consistent with their proposed use.

(c) The number of logging road watercourse crossings shall be kept to a feasible minimum.

(d) Existing logging road watercourse crossing locations shall be utilized where feasible and appropriate.

(e) Where logging road watercourse crossings are proposed to be constructed or reconstructed in areas where public safety may be affected, the potential public safety impacts shall be disclosed in the plan.

(f)[40]As part of the field examination of **DFG Option** ~~classified~~ watercourses and lakes, the RPF or supervised designee shall evaluate areas at and near existing and constructed or reconstructed logging road watercourse crossings for sensitive conditions, including, but not limited to, past diversion, overtopping, plugging, significant inlet or outlet erosion, soil piping, fill slope erosion and significant mechanical damage or wear.

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[40] Staff Note: Conform this section (f) (1- 4) should be assessed for consistency with FPC decision on language used in **923.1 (d)**

(1) 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 planning logging road watercourse crossings.

(2) 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.

(3) The RPF shall describe in the plan feasible protection measures for identified sensitive conditions that consider the watercourse classification and the location and planned use of logging road watercourse crossings.

(4) Where feasible protection measures are proposed, the RPF shall specify an implementation schedule in the plan.

(g) DFG OPTION The RPF or supervised designee shall evaluate logging road and landing surface and drainage conditions for all road segments, drainage structures and facilities within the harvest area and all other logging roads that will be used for timber operations between the harvest area and the first public road. Field inventory information shall be obtained by an RPF or supervised designee while traversing the road segments.

(1) Crossings and associated fills shall be removed, reconstructed or repaired where there is evidence of failure potential or substantial sediment delivery to Class I, II, or III watercourses and lakes.

(2) Culverts shall be replaced or removed if they are crushed, perforated, piping, separated, not adequate to carry water from the fifty-year flood level, located in unstable fill, or causing erosion that may be expected to deliver substantial sediment to Class I, II, or III watercourses and lakes.

(3) Bridges (including associated fill, rip rap, and abutments) and bridge approaches showing evidence of failure potential or substantial sediment delivery to Class I, II, or III watercourses and lakes shall be repaired, replaced, or removed.

(g) The RPF shall disclose in the plan how diversion of stream overflow at logging road watercourse crossings will be prevented.

(h) All new permanent constructed or reconstructed logging road watercourse crossing culverts installed on Class I watercourses, where fish are always or seasonally present or where fish habitat is restorable, shall be planned to allow upstream and downstream passage of fish or listed aquatic species during any life stage and for the natural movement of bedload to form a continuous bed through the culvert.

Adopt § 923.11, 943.11, 953.11 Logging Road Watercourse Crossing Design and Implementation

The following design and implementation standards shall apply to logging road watercourse crossings:

(a) All constructed and reconstructed logging road watercourse crossings shall be designed in accordance with the planned use of the associated logging road.

(b) All logging road watercourse crossings shall be designed to avoid or mitigate potential significant adverse impacts to public safety.

(c) All constructed and reconstructed permanent logging road watercourse crossing structures shall be designed to accommodate the estimated 100-year flood flow, including debris and sediment loads.

(d) All new and replacement culverts used for logging road watercourse crossings shall be designed to be installed at or slightly below the natural watercourse grade, in alignment with the watercourse channel and of the appropriate length.

(e) Where new culverts are proposed for permanent installation at a logging road watercourse crossing, the minimum diameter of the culvert and the method(s) used to determine the culvert diameter shall be specified in the plan.

(f) **Staff Proposal 4/20/11** All necessary protective structures associated with logging road watercourse crossings shall be adequately sized to transmit runoff, minimize erosion of crossing fills, and prevent significant sediment discharge.

(g) Methods to mitigate or prevent diversion of stream overflow at logging road watercourse crossings shall be stated in the plan.

(h) Rock used to construct fords and stabilize the outlet of fords shall be adequately sized to resist mobilization, with the range of required rock dimensions described in the plan.

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

(j) All new permanent constructed and reconstructed logging road watercourse crossing culverts installed within Class I watercourses, which meet the criteria for Class I waters where fish are always or seasonally present or where fish habitat is restorable, shall include the analysis and specifications that document conformance with 14 CCR § 923.10 [943.10, 963.10]subsection (h).

(k) Where logging road networks are remote or are located where the landscape is unstable, where crossing fills over culverts are large, or where logging road watercourse crossing drainage structures and erosion control features historically have a high failure rate, drainage structures and erosion control features shall be oversized, designed for low maintenance, reinforced, or removed before the completion of the timber operation. **RRTF Option 1:** The method of analysis and the design for crossing protection shall be included in the plan. [And do not add 923.11(m) below]

(l) In watersheds with listed anadromous salmonids, for Class I watercourses, where fish are always or seasonally present or where fish habitat is restorable, any plan involving timber operations within the WLPZ shall contain the following information:

(1) A description of all existing permanent logging road watercourse crossings.

(2) Clear and enforceable specifications describing how these crossings are to be modified, used, and treated to minimize risks, giving special attention to allowing fish to pass both upstream and downstream during all life stages and in conformance with the standards of subsection (j) above and 14 CCR § 923.10[943.10, 963.10]subsection (h).

(3) Clear and enforceable specifications for construction and operation of any new crossing(s) of a Class I watercourse to prevent direct harm, habitat degradation, water velocity increase, hindrance of fish passage, or other potential impairment of beneficial uses of water.

(m) (**Option 2** In watersheds with listed anadromous salmonids, in addition to the requirements of 14 CCR § 923.11 [943.11, 963.11]subsection (k), the method of analysis and the design for crossing protection shall be included in the plan.)

Adopt § 923.12[943.12, 963.12]. Logging Road Watercourse Crossing Mapping and Identification.

The following mapping and identification standards shall apply to logging road watercourse crossings:

(a) For logging road watercourse crossing-related mapping requirements refer to 14 CCR §§ 1034(x)(6)(A)-(C), 1090.5(w)(7), 1090.7(n)(7), and 1092.09(l)(7)(A)-(C).

(b) For logging road watercourse crossing-related disclosure and description requirements refer to 14 CCR §§ 1034(ii)(1)-(2) and (4), 1034(kk)(4)(A), 1034(ll) and 1034(mm).

(c) The location of all logging road watercourse crossings to be constructed or reconstructed shall be flagged or otherwise identified on the ground **RRTF Option 1:** before submission of a plan or substantial deviation **RRTF Option 2:** prior to the pre-harvest inspection, if necessary, or prior to logging road watercourse crossing construction or reconstruction). Exceptions may be explained and justified in the plan and agreed to by the Director if flagging is unnecessary as a substantial aid to examining possible significant adverse effects of the crossing location on the factors listed under 14 CCR § 923 [943), 963]subsection (b).

Adopt § 923.13 [943.13, 963.13]. Logging Road Watercourse Crossing Construction and Reconstruction.

The following construction and reconstruction standards shall apply to logging road watercourse crossings:

(a) Where applicable, logging road watercourse crossing construction and reconstruction shall comply with the **DFG Option** ~~design of~~ conditions in required DFG 1602 agreements.
design of required DF&G 1600 agreements.

(b) All constructed and reconstructed permanent logging road watercourse crossings shall accommodate the 100-year flood flow, including debris and sediment loads.

(c) All new and replacement culverts used for logging road watercourse crossings shall be installed at or slightly below the natural watercourse grade and in alignment with the watercourse channel. For Class I watercourses where fish are always or seasonally present or where fish habitat is restorable, new and replacement culverts shall be installed below grade and in alignment with the watercourse channel to allow upstream and downstream passage of fish or listed aquatic species during any life stage and natural movement of bedload to form a continuous bed through the culvert and shall be in conformance the design specified in 14 CCR § 923.11 [943.11,963.11] subsection (j) and with **DFG Option** conditions in required DFG 1602 agreements specified in subsection (a) above.

(d) Fills for constructed and reconstructed logging road watercourse crossings shall be thoroughly compacted in approximately one-foot lifts during installation. The face of crossing fills shall be no greater than 65 percent (1.5:1, horizontal to vertical).

(e) Logging road watercourse crossings shall not discharge water onto erodible fill or other erodible material without the installation of energy dissipators and other necessary protective structures.

(f) Where water is flowing at the time of logging road watercourse crossing construction or reconstruction, necessary protective structures shall be concurrently installed.

(g) Where a significant volume of sediment is stored upstream from a logging road watercourse crossing that is proposed to be reconstructed, the stored sediment shall be removed or stabilized, to the extent feasible, as described in the plan and in conformance with **DFG Option** conditions in required DFG 1602 agreements.

(h) Critical dips shall be incorporated into the construction or reconstruction of logging road watercourse crossings utilizing culverts, except where diversion of overflow is prevented by other methods stated in the plan.

(i) Logging road watercourse crossings with sensitive conditions identified under 14 CCR § 923.10[943.10, 963.10]subsection (f) shall be upgraded to address these conditions, replaced in accordance with 14 CCR § 923.11 [943.11, 963.11] and this section, or removed in accordance with 14 CCR § 923.17 [943.17, 963.17].

(j) **Staff Proposal 4/20/11** Logging road watercourse crossings shall not be constructed or reconstructed under saturated soil conditions or when such activities could result in significant sediment discharge.

(k) Where conditions are encountered during logging road watercourse crossing construction or reconstruction that differ from what was anticipated during the preparation and review of the plan and that will result in a significant adverse impact on the environment or to public safety, the LTO shall notify the RPF or plan submitter of these unanticipated conditions in accordance with 14 CCR § 1035.3. If

necessary, the responsible RPF or plan submitter shall submit to the Director a proposed deviation to the plan describing the unanticipated conditions and proposing appropriate actions.

(l) Logging road watercourse crossings shall be installed no later than October 15, except where logging road construction or reconstruction takes place from October 15 to November 15 or from April 1 to May 1 where logging road watercourse crossings shall be installed concurrent with the activity. Logging road watercourse crossings shall not be installed during the winter period, except as specified in an approved winter operating plan per 14 CCR § 914.7 [934.7, 954.7]subsection (a).

(l) DFG OPTION ~~Logging road watercourse crossings shall be installed no later than October 15, except where logging road construction or reconstruction takes place from October 15 to November 15 or from April 1 to May 1 where logging road watercourse crossings shall be installed concurrent with the activity.~~ Logging road watercourse crossings shall not be installed during the winter period, except as specified in an approved winter operating plan per 14 CCR § 914.7 [934.7, 954.7]subsection (a).

(m) In watersheds with listed anadromous salmonids, excavated material and cut banks resulting from construction and reconstruction shall be sloped back from the channel to prevent slumping and to minimize soil erosion and **DFG Option** where needed, stabilized per 14 CCR **§** 923.14 [943.14, 963.14]subsection (b).

(n) In watersheds with listed anadromous salmonids and in planning watersheds immediately upstream of, and contiguous to, any watershed

with listed anadromous salmonids, during the extended wet weather period no timber operations shall take place unless the approved plan incorporates a complete winter period operating plan pursuant to 14 CCR § 914.7 [934.7, 954.7], subsection (a). that specifically addresses, where applicable, proposed logging road watercourse construction or reconstruction. Where logging road watercourse crossing construction or reconstruction is proposed an implementation schedule shall be specified.

Adopt § 923.14 [943.14, 963.14]. Logging Road Watercourse Crossing Erosion Control.

(a) The following drainage standards shall apply to logging road watercourse crossings:

(1) Adequate surface drainage at logging road watercourse crossings shall be provided through the use of surface geometry configurations in combination with the installation of drainage facilities, ditch drains, or other necessary protective structures **DFG OPTION** to hydrologically disconnect the road from the crossing *to the extent feasible.*

(2) **Staff Proposal 4/20/11** Drainage facilities and ditch drains shall be installed adjacent to logging road watercourse crossings, as needed, to minimize soil erosion and sediment transport and to prevent significant sediment discharge during and upon completion of timber operations. See 14 CCR § 923.5 [943.5, 963.5], subsections (d)-(j)

(3) Drainage facilities or **DFG OPTION** drainage structures ~~ditch drains~~ [41]installed adjacent to logging road watercourse crossings shall be located to avoid discharging concentrated runoff onto fills, erodible soils, unstable areas, and connected headwall swales.

(b) The following stabilization standards shall apply to logging road watercourse crossings:

(1) **Staff Proposal 4/20/11** Bare soil on fills or sidecast associated with logging road watercourse crossings that are created or exposed by timber operations shall be stabilized to the extent necessary to minimize soil erosion and sediment transport and to prevent significant sediment discharge.

Erosion control measures for the traveled surface of roads and landing surfaces are specified in 14 CCR §§ 923.5 [943.5, 963.5] and 923.7 [943.7, 963.7]. Sites to be stabilized include, but are not limited to, sidecast or fill greater than 20 feet in slope distance from the outside edge of the road surface at the logging road watercourse crossing.

(2) Soil stabilization measures shall be described in the plan and may include, but are not limited to, removal, armoring with rip-rap, replanting, mulching, seeding, installing commercial erosion control devices to manufacturer's specifications, or chemical stabilizers.

(3) Soil stabilization treatments shall be in place upon completion of operations for the year of use or prior to **DFG OPTION**

[41] Wording for this section and parallel section 923.5 (b) should be consistent.

the extended wet weather period ~~October 15~~, whichever comes first. An exception is that bare areas created after **DFG OPTION** the extended wet weather period ~~October 15~~ shall be treated within 10 days or as agreed to by the Director.

(4) **Staff Proposal 4/20/11** In watersheds with listed anadromous salmonids and in planning watersheds immediately upstream of, and contiguous to, any watershed with listed anadromous salmonids, within the WLPZ and within any ELZ or EEZ designated for watercourse or lake protection, treatments to stabilize soils, minimize soil erosion, and prevent significant sediment discharge, shall be described in the plan as follows:

(A) In addition to the requirements of subsections (b)(1)-(3), soil stabilization is required for the following:

(i) Areas exceeding 100 continuous square feet where timber operations have exposed bare soil.

(ii) Disturbed logging road watercourse crossing cut banks and fills, and

(iii) **Staff Proposal 4/20/11** Any other area of disturbed soil that threatens to cause significant sediment discharge.

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

(C) Where slash mulch is packed into the ground surface through the use of a tractor or equivalent piece of heavy equipment the minimum slash coverage shall be 75 percent, **DFG OPTION** and any

treated area that has been reused or has less than 75 percent surface cover shall be treated again by the end of timber operations.

(D) **Staff Proposal 4/20/11** For areas disturbed **DFG OPTION** ~~from May 1 to October 15~~ outside the extended wet weather period, treatment shall be completed prior to the start of any rain that causes overland flow across or along the disturbed surface that could result in significant sediment discharge.

(E) For areas disturbed **DFG OPTION** ~~from October 15 to May 1~~ during 0the extended wet weather period, treatment shall be completed prior to any day for which a chance of rain of 30 percent or greater is forecast by the National Weather Service or within 10 days of disturbance, whichever is earlier.

Adopt § 923.15 [943.15, 963.15]. Logging Road Watercourse Crossing Use.

Logging road watercourse crossings shall be used in a manner that is consistent with the design, construction, and maintenance of the logging road along which they have been constructed (Refer to 14 CCR §§ 923.2 [943.2, 963.2], 923.4 [943.4, 963.4], 923.6 [943.6, 963.6], and 923.7 [943.7, 963.7]).

4-29-11 Road Rules Task Force Plead with FPC edits

Adopt § 923.16 [943.16, 963.16]. Logging Road Watercourse Crossing Maintenance and Monitoring.

The following maintenance and monitoring standards shall apply to logging road watercourse crossings:

(a) Logging road watercourse crossings shall be maintained as designed, constructed, and reconstructed during timber operations and throughout the prescribed maintenance period.

(b) Logging road watercourse crossings that are used in connection with stocking activities shall be maintained throughout such use, even if this extends beyond the prescribed maintenance period.

(c) **Staff Proposal 4/20/11** Soil stabilization treatments on logging road watercourse crossing fills shall be maintained to minimize soil erosion and sediment transport and to prevent significant sediment discharge.

(d) **Staff Proposal 4/20/11** The plan shall identify measures to be used to reduce sediment delivery from logging road watercourse crossings where evidence of substantial soil erosion and significant sediment discharge is present at a logging road watercourse crossing used for timber operations. Where evidence of substantial soil erosion and significant sediment discharge is present at a logging road watercourse crossing used for timber operations, additional measures shall be stated in the plan and installed, as needed, to minimize soil erosion and prevent significant sediment discharge.

(e) Logging road watercourse crossings used for timber operations shall be monitored, as needed, to comply with 14 CCR § 1050.

(f) Drainage structures and associated necessary protective structures shall be maintained, repaired, and replaced as needed to minimize crossing blockage and to provide for adequate capacity.

(g) In watersheds with listed anadromous salmonids and in planning watersheds immediately upstream of, and contiguous to, any watershed with listed anadromous salmonids, the erosion control maintenance period on logging road watercourse crossings that are not abandoned or deactivated in accordance with 14 CCR § 923.8 [943.8, 963.8] shall be three years.

Adopt § 923.17[943.17, 963.17] Logging Road Watercourse Crossing Removal.

All logging road watercourse crossings that are proposed by the plan submitter to be removed, including temporary crossings and those along abandoned or deactivated logging roads, shall be removed as described in the plan and shall apply the following standards:

(a) Fills shall be excavated to form a channel that is as close as feasible to the natural watercourse grade and orientation and that is wider than the average natural channel, as observed upstream and downstream of the logging road watercourse crossing to be removed.

(b) Staff Proposal 4/20/11 The excavated material and any resulting cut bank shall be no greater than 65 percent (1.5:1, horizontal to vertical) from the outside edge of the constructed channel to prevent slumping, to minimize soil erosion and sediment transport, and to prevent significant sediment discharge.

(c) **Staff Proposal 4/20/11** Exposed soil associated with logging road watercourse crossing fill removal, including cut banks and excavated material, shall be stabilized during and upon completion of removal operations, as needed, or as otherwise specified in the rules. Soil stabilization measures may include, but are not limited to, armoring with rip-rap, replanting, mulching, seeding, installing commercial erosion control devices to manufacture's specifications, or other suitable treatment to minimize soil erosion and sediment transport and to prevent significant sediment discharge.

(d) Staff Proposal 4/20/11 Appropriate drainage facilities shall be installed along removed logging road watercourse crossing approaches at locations that minimize the concentration of surface runoff and soil erosion and to prevent significant sediment discharge.

(e) Staff Proposal 4/20/11 Where it is not feasible to remove a logging road watercourse crossing or its associated fill to the above standards, the plan shall identify how soil erosion and sediment transport will be minimized and how significant sediment discharge will be prevented.

(f) Where a significant volume of sediment is stored upstream from a logging road watercourse crossing that is proposed to be removed, the stored sediment shall be removed or stabilized, to the extent feasible, as described in the plan and in conformance with required DFG 1600 agreements.

(g) All logging road watercourse crossings proposed for removal shall be removed upon completion of use, prior to the winter period or as

specified in the applicable DFG 1600 agreement, whichever is earlier, or as otherwise specified in the plan.

(h) Where the removal of an individual logging road watercourse crossing eliminates access to other temporary crossings, all such crossings shall be removed concurrently.

(i) If operations are conducted during the winter period, temporary logging road watercourse crossings shall be removed before the flow of water exceeds the capacity of the individual crossing.

Amend § 1034. Contents of Plan.

*******(x)** The information in subsections (1)-(4)(A), (5)(A)-(5)(K), if applicable, (6)(A)-(B), and (7)-(16) shall be clearly shown on a map that is based upon a U. S. Geological Survey topographic quadrangle map, or equivalent, published at a scale of 1:24,000 or larger ~~On titled USGS (if available) or equivalent topographic maps of a scale not less than 2" to the mile, the information in subsections (1-4), (8), (9), and (11-13) shall be clearly shown~~. The information in subsections (4)(B), (5)(A)-(5)(L), if applicable, and (6)(C) shall be clearly shown on a topographic map at a scale of 1/2 inch equals 1 mile (1:126,720) or larger. Additional maps, which may be topographic or planimetric, may be used to provide the information required in the other subsections, to ~~or~~ show specific details, and to improve map clarity. ~~The appurtenant roads referenced in subsection (4) 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 to depict

operational features on maps. See the district rules for the appropriate minimum mapping acreages.

(1)-(3) [No change]

(4) ~~Location of public roads and those private roads to be used for timber operations within the plan area, and private roads appurtenant to the timber operations where such roads are under the ownership or control of the timber owner, timberland owner, timber operator, or submitter of the plan, and classification of all proposed and existing logging roads as permanent, seasonal, or temporary roads.~~ The following logging road- and landing-related features shall be shown on a map of the appropriate type and scale as described in subsection (x) above:

(A) Location of logging roads within the harvest area, including those located in watercourses, lakes, WLPZs, marshes, wet meadows, or other wet areas and those proposed for abandonment or deactivation.

(B) Location of logging roads under the ownership or control of the timber owner, timberland owner, timber operator, or plan submitter that will be used for log hauling and that are between the harvest area and the first public road to be used for log hauling. This shall include:

(i) Logging roads and landings located in watercourses, lakes, WLPZs, marshes, wet meadows, or other wet areas, other than at logging road watercourse crossings.

(ii) Logging roads and landings proposed for abandonment or deactivation.

(iii) Logging roads that provide access to rock pits and water drafting sites.

(5) ~~Probable location of proposed and existing landings in the watercourse and lake protection zone, and landings outside the zone that are greater than 1/4 acre in size or whose construction involves substantial excavation.~~ The following shall be mapped at the appropriate scale required under subsection (x), whichever is applicable, for all constructed and reconstructed logging roads and landings, unless otherwise described:

(A) Location of logging road grades greater than 15 percent for over 200 continuous feet or logging road grades exceeding 20 percent.

(B) Location of road failures on existing logging roads to be reconstructed.

(C) Location of logging roads across and landings on unstable areas or connected headwall swales.

(D) Location of logging roads or landings within Class I, II, III, or IV watercourses or lakes, WLPZs, marshes, wet meadows, or other wet areas other than at logging road watercourse crossings.

(E) Location of logging roads and landings with insloping, inside ditch drainage, or crowning in excess of 300 lineal feet that drains into a classified watercourse or lake.

(F) Location of landings that require substantial excavation and landings in excess of one-quarter acre in size.

(G) Location of disposal sites for spoils generated during logging road or landing construction or reconstruction on slopes greater than 40 percent or on active unstable areas.

(H) Location of logging roads and landings across slopes greater than 65 percent for 100 lineal feet or more.

(I) Location of logging roads and landings across slopes greater than 50 percent for 100 lineal feet or more within 100 feet of the boundary of a WLPZ that drains toward the zoned watercourse or lake.

(J) In watersheds with listed anadromous salmonids and in planning watersheds immediately upstream of, and contiguous to, any watershed with listed anadromous salmonids, location of active erosion sites on logging roads and landings that will be treated.

(K) In watersheds with listed anadromous salmonids, location of proposed water drafting locations.

(L) Location of any other area(s) where non-standard practices on logging roads are proposed.

(6) The following logging road watercourse crossing-related features shall be shown on a map of the appropriate type and scale as described in subsection (x) above:

(A) Location of existing logging road watercourse crossings within the harvest area, including those crossings to be abandoned or deactivated. This requirement may be met by depicting the intersection of a logging road and a watercourse.

(B) Location of constructed and reconstructed logging road watercourse crossings within the harvest area, including those crossings to be abandoned or deactivated.

(C) Logging road watercourse crossings that are not within the harvest area but are under the ownership or control of the owner of the timberland where timber is proposed for harvest and are between the harvest area and the first public road to be used for log hauling that are:

(i) Existing logging road watercourse crossings of Class I and Class II waters that will be used for log hauling.

(ii) Constructed and reconstructed logging road watercourse crossings that will be used for log hauling.

(iii) Existing logging road watercourse crossings to be abandoned or deactivated.

Existing logging road watercourse crossings may be shown by depicting the intersection of a logging road and a watercourse.

~~**(6)** Road failures on existing roads to be reconstructed.~~

(7) Location of all tractor road watercourse crossings of classified watercourses except temporary crossings of Class III watercourses that are dry at the time of use ~~without flowing water during timber operations at that crossing~~.

(8) Location of erosion hazard rating areas, if more than one rating exists.

(9) Location of watercourses and lakes with Class I, II, III, or IV waters.

(10) Location of known unstable areas or slides.

(11) Location of understocked areas prior to timber operations, and other areas not normally bearing timber to at least a 20-acre minimum, or as specified in the district rules.

(12) Location of boundaries of timber-site classes needed for determination of stocking standards to be applied, down to at least a 20-acre minimum or as specified in the district rules.

(13) Location of main ridge tops on the logging area suitable for fire suppression efforts that will require the felling of snags.

(14) Location of Coastal Commission Special Treatment Areas or any special treatment area.

(15) Location for which heavy equipment use is proposed on unstable areas, or on areas for which tractor use is proposed beyond the limitations of the standard forest practice rules.

(16) Location of any in lieu use of heavy equipment and location of tractor roads ~~other than crossings~~ in ~~the~~ watercourses, lakes WLPZs, marshes, wet meadows, and other wet areas.

~~**(17)** Location of any new or reconstructed road segment(s) that exceed an average 15% grade for over 200 feet.~~

(aa)- [No change]

(bb) Winter period operating plan where appropriate that addresses proposed logging road or landing construction, reconstruction. (Refer to 14 CCR § 923.4(k) [943.4(k), 963.4(k)]).

(cc) Explanation and justification for use of watercourses, marshes, wet meadows, and other wet areas as ~~landings, roads, or skid trails~~ tractor roads.

(dd)-(ee) [No change]

(ff) ~~Explanation and justification for landings that exceed the maximum size specified in the rules.~~

~~**(gg)**~~ Any other information required by the rules or the Act to be included in the plan. The district rules provide for exceptions and alternatives to standard requirements that require inclusion of information in the THP.

~~**(hh)** Where roads, watercourse crossings, and associated landings in the logging area will be abandoned, the methods for abandonment shall be described.~~

~~**(ii)** On a map complying with subsection 1034(x), the locations and classifications of roads, watercourse crossings, and landings to be abandoned shall be shown.~~

~~**(jj)**~~**(gg)** A general description of physical conditions at the plan site, including general soils and topography information, vegetation and stand conditions, and watershed and stream conditions.

(hh) Option 1: All logging roads and all landings requiring construction or reconstruction along non-public roads that are not within the harvest area nor under the ownership or control of the timberland owner whose land is being harvested shall be identified.

(**Option 2:** Do not adopt the contents of subsection (hh) proposed under Option 1 and begin re-numbering subsection (ii) as (hh), (jj) as (ii), etc.)

(ii) The following shall be disclosed and described in the plan for all existing, constructed, and reconstructed logging roads, landings and logging road watercourse crossings, where applicable:

(1) For those with identified sensitive conditions per 14 CCR § 923.1(d) [943.1(d), 963.1(d)] and 923.10(f) [943.10(f), 963.10(f)]:

(A) Such sensitive conditions, including where they may interact with proposed timber operations, that individually or cumulatively, significantly and adversely affect, the beneficial uses of water.

(B) Feasible protection measures for identified sensitive conditions, which consider the watercourse classification and the location and planned use of all logging roads and landings.

(C) An implementation schedule where feasible protection measures are proposed.

(2) Soil stabilization measures, including timing of installation. (Refer to 14 CCR § 923.5(l) [943.5(l), 963.5(l)])

(3) Maintenance treatments to running surfaces of logging roads and landing surfaces. (Refer to 14 CCR § 923.7(c) [943.7(c), 963.7(c)]).

(4) Describe how logging road watercourse crossings, including temporary crossings and those along abandoned or deactivated logging roads, are to be removed. (Refer to 14 CCR § 923.17 [943.17, 963.17]).

(5) In watersheds with listed anadromous salmonids and in planning watersheds immediately upstream of, and contiguous to, any watershed with listed anadromous salmonids:

(A) Specific erosion control measures for all permanent and seasonal logging roads with a grade of 15 percent or greater that

extend 500 continuous feet or more. (Refer to 14 CCR § 923.5(p)(2) [943.5(p)(2), 963.5(p)(2)]).

(B) Soil stabilization measures, including timing of installation. (Refer to 14 CCR § 923.5(p)(3) [943.5(p)(3), 963.5(p)(3)]).

(6) In watersheds with listed anadromous salmonids, water drafting site conditions and proposed water drafting activity. (Refer to 14 CCR § 923.7(l)(2) [923.7(l)(2), 923.7(l)(2)].)

(jj) The following shall be disclosed and described in the plan for all constructed and reconstructed logging roads and landings:

(1) Option 1: Lineal distance of individual segments of logging road construction.

(Option 2: Total lineal distance of all logging road construction.)

(2) Potential public safety concerns. (Refer to 14 CCR § 923.10(e) [943.10(e), 963.10(e)].)

(3) Logging roads wider than single lane compatible with the largest type of equipment specified for use.

(4) Areas with identified isolated outcrops of asbestos-bearing soil or parent material.

(5) Areas with potential mercury in soil, fills, or mine tailings.

(6) Areas where rules require a constructed bench to support fill on slopes greater than 50 percent for 100 lineal feet or more.

(7) Landings in excess of one-quarter acre on slopes exceeding 40 percent.

(8) Logging roads across or landings on unstable areas or connected headwall swales.

(9) Logging roads or landings within Class I, II, III, or IV watercourses or lakes, WLPZs, marshes, wet meadows, or other wet areas other than at logging road watercourse crossings.

(10) Logging road and landing insloping, inside ditch drainage, or crowning in excess of 300 lineal feet that drains to a classified watercourse or lake.

(11) Road failures on existing logging roads to be reconstructed.

(12) Disposal sites for spoils generated during logging road or landing construction or reconstruction on slopes greater than 40 percent or on active unstable areas.

(13) Logging roads and landings across slopes greater than 50 percent for 100 lineal feet or more within 100 feet of the boundary of a WLPZ that drains toward the zoned watercourse or lake, including specific construction techniques or measures. (Refer to 14 CCR § 923.4(m) [943.4(m), 963.4(m)]).

(14) Logging roads and landings across or landings on slopes greater than 65 percent for 100 lineal feet or more, including specific construction techniques or measures to minimize movement of soil and the discharge of concentrated surface runoff. (Refer to 14 CCR § 923.2(a)(6) [943.2(a)(6), 963.2(a)(6)]).

(15) Logging roads or landings to be abandoned or deactivated, including specific measures used to apply the general abandonment or deactivation requirements of 14 CCR § 923.8 [943.8, 963.8].

(16) Landings that require substantial excavation and landings in excess of one-quarter acre in size.

(17) Any other areas where non-standard practices on logging roads or landings are proposed.

(kk) In watersheds with listed anadromous salmonids and in planning watersheds immediately upstream of, and contiguous to, any watershed with listed anadromous salmonids, the following shall be disclosed in the plan:

(1) Erosion sites on logging roads and landings that will be treated, including proposed treatment(s). (Refer to 14 CCR § 923.2(f) [943.2(f), 963.2(f)]).

(2) Identification and description of specific provisions for all proposed logging road construction on slopes greater than 50 percent. (Refer to 14 CCR § 923.4(s)(1)(A) [943.4(s)(1)(A), 963.4(s)(1)(A)]).

(3) Where logging road or landing construction or reconstruction is proposed, the location of, and specifications for, logging road and landing abandonment or other mitigation measures to minimize the adverse effects of long-term site occupancy of the road system within the watershed. (Refer to 14 CCR § 923.1(f) [943.1(f), 963.1(f)]).

Option 1 Where logging road or landing construction or reconstruction is proposed, the plan shall identify:

(A) How the proposed operations will fit into the systematic layout pattern.

(B) What, if any, offsetting mitigation measures, including but not limited to, abandonment of logging roads and landings, are needed to minimize potential adverse impacts to watersheds from the road system. (Refer to 14 CCR § 923.1(f) [943.1(f), 963.1(f)]).

(4) During the extended wet weather period, the winter period operating plan shall:

(A) Address, where applicable, proposed logging road or landing construction, reconstruction and use. (Refer to 14 CCR §§ 923.4(s)(2) [943.4(s)(2), 963.4(s)(2)] and 923.6(j)(5) [943.4(j)(5), 963.4(j)(5)]).

(B) Specify an implementation schedule where logging road watercourse crossing construction or reconstruction is proposed. (Refer to 14 CCR § 923.13(n) [943.13(n), 963.13(n)].)

(ll) In watersheds with listed anadromous salmonids, the following shall apply:

(1) **D**isclose and describe all existing permanent logging road watercourse crossings. (Refer to 14 CCR § 14 CCR § 923.11(l)(1) [943.11(l)(1), 963.11(l)(1)].)

(2) In addition to the description of all existing permanent logging road watercourse crossings required by subsection (kk)(3), for Class I watercourses, where fish are always or seasonally present or where fish habitat is restorable, any plan involving timber operations within the WLPZ shall contain the following information:

(A) Clear and enforceable specifications describing how these crossings are to be modified, used, and treated to minimize

risks, giving special attention to allowing fish to pass both upstream and downstream during all life stages and in conformance with the standards of subsection 923.11(j) [943.11(j), 963.11(j)] and 14 CCR § 923.10(h) [943.10(h), 963.10(h)].

(B) Clear and enforceable specifications for construction and operation of any new crossing(s) of a Class I watercourse to prevent direct harm, habitat degradation, water velocity increase, hindrance of fish passage, or other potential impairment of beneficial uses of water. (Refer to 14 CCR § 923.11(l)(2)-(3) [943.11(l)(2)-(3), 963.11(l)(2)-(3)].)

(mm) The following shall be provided in the plan for all constructed and reconstructed logging road watercourse crossings:

(1) Describe all constructed or reconstructed logging road watercourse crossings within the harvest area, as needed.

(2) **Option 1:** Disclose and describe all permanent and temporary logging road watercourse crossings requiring construction or reconstruction along non-public roads, except temporary logging road watercourse crossings of Class III watercourses that are dry at the time of use, that are not within the harvest area nor under the ownership or control of the timberland owner where timber is proposed for harvest. **(Option 2**: Do not adopt the contents of subsection (mm)(2) proposed under Option 1 and begin re-numbering subsection (mm)(3) as (mm)(2), (mm)(4) as (mm)(3), etc.)

(3) Disclose the potential public safety impacts where crossing construction or reconstruction may affect public safety. (Refer to 14 CCR § 923.10(e) [943.10(e), 963.10(e)]).

(4) Disclose how diversions at logging road watercourse crossings will be avoided, including proposed method(s). (Refer to 14 CCR §§ 923.10(g) [943.10(g), 963.10(g)] and 923.11(g) [943.11(g), 963.11(g)]).

(5) Include the analyses and specifications that demonstrate all permanent constructed and reconstructed logging road watercourse crossing structures installed within Class I watercourses, where fish are always or seasonally present or where fish habitat is restorable, will be designed to allow for upstream and downstream passage of fish or listed aquatic species during any life stage and for the natural movement of bedload. (Refer to 14 CCR § 923.11(i)-(j) [943.11(i)-(j), 963.11(i)-(j)].)

(6) Specify the minimum diameter of the culvert and the method(s) used to determine the culvert diameter where new culverts are proposed for permanent installation at a logging road watercourse crossing. (Refer to 14 CCR § 923.11(e) [943.11(e), 963.11(e)].)

(7) State the range of required rock dimensions for rock used in logging road watercourse crossings utilizing fords. (Refer to 14 CCR § 923.11(h) [943.11(h), 963.11(h)].)

(8) **Staff Proposal 4/20/11** Identify protection measures needed to reduce sediment delivery where evidence of substantial soil erosion and significant sediment discharge is present at a logging road watercourse crossing used for timber operations. (Refer to 14 CCR § 923.16(d) [943.16(d), 963.16(d)].)

(9) **Staff Proposal 4/20/11** Identify how soil erosion and sediment transport will be minimized and how significant sediment discharge

will be prevented where it is not feasible to remove a logging road watercourse crossing or its associated fill to the standards contained in 14 CCR § 923.17 [943.17, 963.17]. (Refer to 14 CCR §§ 923.8(e) [943.8(e), 963.8(e)] and 923.17(e) [943.17(e), 963.17(e)].)

(10) Disclose and describe site conditions, and, to the extent feasible, specify measures to be taken to address potential sediment mobilization where a significant volume of sediment is stored upstream from a logging road watercourse crossing that is proposed to be removed. (Refer to 14 CCR §§ 923.13(g) [943.13(g), 963.13(g)] and 923.17(f) [943.17(f), 963.17(f)].)

(11) In watersheds with listed anadromous salmonids, **Option 1** state how existing permanent culverts used for logging road watercourse crossings on Class I watercourses, where fish are always or seasonally present or where fish habitat is restorable, shall be brought up to the standards of 14 CCR § 923.11(c) [943.11(c), 963.11(c)].

[Option 2, (A) state how existing permanent culverts used for logging road watercourse crossings on Class I watercourses, where fish are always or seasonally present or where fish habitat is restorable, shall be brought up to the standards of 14 CCR § 923.11(c) [943.11(c), 963.11(c)].

(B) (*This only applies if 14 CCR § 923.11(k) [943.11(k), 963.11(k)], Option 1 is adopted.*) In addition to the requirements of 14 CCR § 923.11(k) [943.11(k), 963.11(k)], include the method of analysis and the design for logging road watercourse crossing

protection. (Refer to 14 CCR § 14 CCR § 923.11(k) [943.11(k), 963.11(k)].)]

Amend 1051.1. Contents of Modified THP

A plan submitted under ~~section~~ 14 CCR § 1051 above shall contain all the provisions of 14 CCR § 1034 except the following: (o), (x)(6), (x)(7), (z), (cc), (dd), (ee), (ff), and (mm), and the RPF shall:

Amend 1090.5 Contents of NTMP

(w) On a USGS quadrangle or equivalent topographical map of a scale not less than 2" to the mile, the following information shall be clearly provided. Additional maps may be required to show specific details, and may be planimetric. Color coding shall not be used. A legend shall be included indicating the meaning of the symbols used to depict operational features on maps. See the district rules for the appropriate minimum mapping acreages.

(1)-(3) [No change]

(4) Location of public roads within the ~~plan~~ harvest area, and private roads appurtenant to the timber operations where such roads are under the ownership or control of the timberland owner and are contiguous with the ~~plan~~ harvest area, and classification of all proposed and existing logging roads as permanent, seasonal, or temporary roads.

(5)-14) [No change]

(x)-(ff) [No change]

(gg) Where logging roads, logging road watercourse crossings, and associated landings in the logging area will be abandoned or deactivated, the methods for abandonment or deactivation shall be described.

(hh) On a map complying with ~~subsection~~ 14 CCR § ~~1090.6(x)~~ 1090.5(w), the locations and classifications of logging roads, logging road watercourse crossings, and landings to be abandoned or deactivated shall be shown.

(ii) [No change]

Amend 1090.7 Notice of Timber Operations Content

*******(n)** On a USGS quadrangle or equivalent map of a scale not less than 2" to the mile, the following information pertinent to the Notice of Operations shall be clearly provided. Additional maps may be required to show specific details, and may be planimetric. Color coding shall not be used. A legend shall be included indicating the meaning of the symbols used to depict operational features on maps. See the district rules for the appropriate minimum mapping acreages.

(1)-(3) [No change]

(4) Location of public roads within the Notice area, and private roads appurtenant to the timber operations where such roads are under the ownership or control of the timberland owner, and are contiguous with the Notice area, and classification of all proposed and existing logging roads as permanent, seasonal, or temporary roads.

(5)-(11) [No change]

Amend 1092.09 PTHP Contents

(a) – (K) No change

(l) On a ~~titled USGS quadrangle or equivalent topographic map of a scale not less than 2" to the mile~~ map that is based upon a U. S. Geological Survey topographic quadrangle map, or equivalent, published at a scale of 1:24,000 or larger, the information in subsections ~~(1-5)~~ (1)-(5)(A), (6)(A)-(6)(K), if applicable, (7)(A)-(B), and (7-11) shall be clearly shown. On a topographic map at a scale of 1/2 inch equals 1 mile (1:126,720) or larger, the information in subsections (5)(B), (6)(A)-(6)(K), if applicable, and (7)(C) shall be clearly shown. Additional maps, which may be topographic or planimetric, may be used to provide the information required in other subsections or show specific details, and to improve map clarity. ~~The appurtenant roads referenced in subsection (5) 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 to depict operational features on maps. See the district rules for the appropriate minimum mapping acreage.

(1)-(4) **[No change]**

(5) ~~Location of public roads within the PTHP, and private roads appurtenant to the timber operations where such roads are under the ownership or control of the timber owner, timberland owner or timber operator, and classification of all proposed and existing logging roads as permanent, seasonal, or temporary roads.~~ The following

logging road- and landing-related features shall be shown on a map of the appropriate type and scale as described in subsection (l) above:

(A) Location of all logging roads within the harvest area, including those located in watercourses, lakes, WLPZs, marshes, wet meadows, or other wet areas and those proposed for abandonment or deactivation.

(B) Location of all logging roads that will be used for log hauling under the ownership or control of the timber owner, timberland owner, timber operator, or plan submitter that are between the harvest area and the first public road to be used for log hauling. This shall include:

(i) Logging roads and landings located in watercourses, lakes, WLPZs, marshes, wet meadows, or other wet areas, other than at logging road watercourse crossings.

(ii) Logging roads and landings proposed for abandonment or deactivation.

(iii) Logging roads that provide access to rock pits and water drafting sites.

(6) The following shall be mapped at the appropriate scale required under subsection (l), whichever is applicable, for all constructed and reconstructed logging roads and landings, unless otherwise noted:

(A) Location of logging road grades greater than 15 percent for over 200 continuous feet or logging road grades greater than 20 percent.

(B) Location of road failures on existing roads to be reconstructed.

(C) Location of logging roads across or landings on unstable areas or connected headwall swales.

(D) Location of logging roads or landings within Class I, II, III, or IV watercourses or lakes, WLPZs, marshes, wet meadows, or other wet areas other than at logging road watercourse crossings.

(E) Location of logging road and landing insloping, inside ditch drainage, or crowning in excess of 300 lineal feet that drains to a classified watercourse or lake.

(F) Location of landings that require substantial excavation and landings in excess of one-quarter acre in size.

(G) Location of disposal sites for spoils generated during logging road or landing construction or reconstruction on slopes greater than 40 percent or on active unstable areas.

(H) Location of logging roads and landings across slopes greater than than 65 percent for 100 lineal feet or more.

(I) Location of logging roads and landings across slopes greater than 50 percent for 100 lineal feet or more within 100 feet of the boundary of a WLPZ that drains toward the zoned watercourse or lake.

(J) In watersheds with listed anadromous salmonids and in planning watersheds immediately upstream of, and contiguous to, any watershed with listed anadromous salmonids, the location of active erosion sites on logging roads and landings that will be treated.

(K) In watersheds with listed anadromous salmonids, location of proposed water drafting locations.

(L) Location of any other area(s) where non-standard practices on logging roads are proposed.

(7)~~**(6)** Location of proposed and existing landings in the watercourse and lake protection zone, and landings outside the zone that are greater than 1/4 acre in size or whose construction involves substantial excavation.~~ The following logging road watercourse crossing-related items shall be shown on a map of the appropriate type and scale as described in subsection (l) above:

(A) Location of all existing logging road watercourse crossings within the harvest area, including those proposed for abandonment or deactivation. This requirement may be met by depicting the intersection of a logging road and a watercourse.

(B) Location of all constructed or reconstructed logging road watercourse crossings within the harvest area, including those proposed for abandonment or deactivation.

(C) For logging road watercourse crossings that are not within the harvest area but are under the ownership or control of the owner of the timberland where timber is proposed for harvest and that are between the harvest area and the first public road to be used for log hauling:

(i) Existing logging road watercourse crossings of Class I and Class II waters that will be used for log hauling.

(ii) Constructed and reconstructed logging road watercourse crossings that will be used for log hauling.

(iii) Existing logging road watercourse crossings to be abandoned or deactivated.

Existing logging road watercourse crossings may be shown by depicting the intersection of a logging road and a watercourse.

(8) ~~**(7)** Road failures on existing roads to be reconstructed.~~

~~**(8)**~~ Location of all tractor road watercourse crossings of classified watercourses except temporary crossings of class III watercourses that are dry at the time of use ~~without flowing water during timber operations at that crossing~~.

(9) Location of erosion hazard rating areas, if more than one rating exists.

(10) Location of watercourses and lakes with Class I, II, III or IV waters.

(11) Location of known unstable areas or slides.

(12) Location of unique areas.

Amend § 1093.2. Contents of Road Management Plan.

The Road Management Plan shall, at a minimum, contain the following information:*****

*****(3) The operational element shall, at a minimum, address proposed road management operations, stated time frames for actions, clear lines of responsibility for implementation, and schedules to be implemented in a plan, including:

(A) Staff Proposal 4/20/11: (A) A road construction, reconstruction and use component to ensure that operations occur on a stable operating surface, consistent with 14 CCR 923.6 (g). ~~that does~~

~~not produce sediment in quantities that may cause a visible increase in turbidity of downstream waters in receiving Class I, II, III or IV waters or would violate Water Quality Requirements.~~ This component shall include, at a minimum, restrictions for wet weather operations, surfacing objectives, and provisions for water drafting.*****

Amend § **1104.1. Conversion Exemptions.**

Timber operations conducted under this subsection shall be exempt from conversion permit and timber harvesting plan requirements of this article*****

*****(**E**) Timber operations may be conducted during the winter period. Tractor operations in the winter period are allowed under any of the following conditions:

1. Staff Proposal **4/20/11:** During dry, rainless periods but shall not be conducted on saturated soil conditions that may produce significant sediment discharge. s~~ediment in quantities sufficient to cause a visible increase in turbidity of downstream waters in receiving Class I, II, III or IV waters or that violate Water Quality Requirements.~~ Erosion control structures shall be installed on all constructed skid trails and tractor roads prior to sunset if the National Weather Service forecast is a "chance" (30% or more) of rain within the next 24 hours.*****

End as of 4/29/11