

Road Rules, 2011
14 CCR, Div. 1.5 Chapter 4

- 1 § 895.1 Definitions.
- 2 § 914.7 [934.7, 954.7]. Timber Operations, Winter Period.
- 3 § 914.8 [934.8,954.8] Tractor Road Watercourse Crossings.
- 4 § 915.1 [935.1, 955.1]. Use of Heavy Equipment for Site Preparation.
- 5 § 916.3 [936.3,956.3] General Limitations Near Watercourses.
- 6 § 916.4 [936.4,956.4]
- 7 § 916.9 [936.9,956.9] Protection and Restoration of the Beneficial functions
of the Riparian Zone in Watersheds with Listed Anadromous Salmonids.
- 8 § 918.3 [938.3,958.3] Roads to be Kept Passable.
- 9 § 923 [943.1,963.1]Intent for Logging Roads, Landings, and Logging Road
Watercourse Crossings.
- 10 § 923.1 [943.2,963.2] Logging Road and Landing Planning.
- 11 § 923.2 [943.3,963.3] Design and Implementation for Logging Roads and
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- 12 § 923.3 [943.3,963.3] Mapping and Identification for Logging Roads and
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- 13 § 923.4 [943.4,963.4] Construction & Reconstruction for Logging Roads and
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- 14 § 923.5 [943.5,963.5] Erosion Control for Logging Roads and Landings.
- 15 § 923.6 [943.6,963.6] Use of Logging Roads and Landings.
- 16 § 923.7 [943.7,963.7] Maintenance & Monitoring for Logging Roads and Landings
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- 19 § 923.10 [943.10,963.10]Planning for Logging Road Watercourse Crossing
- 20 § 923.11 [943.11,963.11]Logging Road Watercourse Crossing Design and
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- 21 § 923.12 [943.12,963.12] Logging Road Watercourse Crossing Mapping and
Identification
- 22 § 923.13 [943.13,963.13] Logging Road Watercourse Crossing Construction &
Reconstruction
- 23 § 923.14 [943.14,963.14] Logging Road Watercourse Crossing Erosion Control
- 24 § 923.15 [943.15,963.15] Logging Road Watercourse Crossing Use
- 25 § 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.

9-12-11 Road Rules Task Force Plead with FPC edits

1 **Notes:** Proposed new or relocated text in underscore
Deleted existing text in ~~strikeout~~

2 **Text in yellow** is amendments to the RRTF plead suggested by DFG or NMFS under
consideration.

3 **Text in red** is amendments to the RRTF plead suggested by CGS, CAL FIRE or
Board staff under consideration.

5 **Amend § 895.1. Definitions.**

6
7 **Abandoned Road** means a logging road on which proactive measures have
8 been applied to effectively remove it from the permanent road network.

9
10 ~~**Abandonment** means leaving a logging road reasonably impassable to~~
11 ~~standard production four wheel drive highway vehicles, and leaving a~~
12 ~~logging road and landings, in a condition which provides for long-term~~
13 ~~functioning of erosion controls with little or no continuing~~
14 ~~maintenance.~~

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

18
19 **Appurtenant Road** means a temporary, seasonal, or permanent road
20 between the boundary of the harvest area and the first public road
21 along the log hauling route, that is owned or controlled by the
22 timberland owner, timber operator, timber owner, or plan submitter and
23 will be used during the harvesting of a particular plan area.

24 **Appurtenant roads are subject to the same road-related Forest Practice**
25 **Rules as any seasonal or permanent road.**

Comment [e1]: 9/11 Staff suggested edits intended for clarity. Staff preference for this version rather than Cal Fire's.

Deleted: or

1 CAL FIRE Option: Appurtenant Road means a logging road under the
2 ownership or control of the timber owner, timberland owner, timber
3 operator, or plan submitter that will be used for log hauling and that
4 is between the plan area and the first public road to be used for log
5 hauling.¹

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

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

12
13 Connected Headwall Swale means a geomorphic feature consisting of a
14 bowl-shaped, concave depression with convergent slopes, typically of
15 65 percent or greater steepness, that is connected to a watercourse or
16 lake by way of a continuous linear depression and that has been
17 sculpted over geologic time by shallow landslide events. The slope
18 profile is typically smooth and unbroken by benches, but may be
19 interrupted by recent landslide deposits or scars. Emergent
20 groundwater and wet areas may exist at the base of the swale. Soil
21 and colluvium depth is typically greatest at the axis of the swale,
22 thinning to either side.

23 _____
24 ¹ Term inserted for two reasons: 1) term is used routinely in existing FPRs
25 (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

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

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

2

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.

Comment [e2]: Definition used later in DFG Option for §923.7(m).

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 Watersheds, appears to be a logical way to approach this issue. However, DFG recommended that its option for using a May 31st ending date be dropped. This decision to not include a May 31st ending date was because data use to validate this ending date was limited to NW California Coho salmon rainfall records. These location and records are already covered areas covered by HCPs which will highly control erosion control start and ending dates. Further the May 31st is based on NW CA rainfall dates and is not applicable for other parts of the state. On June 8, 2011, the FPC chose to include the definitions for extended wet weather period, with fixed calendar dates for purposes of brevity in the rules. The FPC decided to task the RRTF to investigate site-specific, fixed calendar date definitions but to not include this type of definition at this time.

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1 Insloping means shaping the road surface to drain toward a cutbank.
2 Outsloping means shaping the road surface to drain toward the outside
3 edge.
4 ~~Permanent Road~~ means ~~a road which is planned and constructed to be~~
5 ~~part of a permanent all season transportation facility. These roads~~
6 ~~have a surface which is suitable for the hauling of forest products~~
7 ~~throughout the entire winter period and have drainage structures, if~~
8 ~~any, at watercourse crossings which will accommodate the fifty year~~
9 ~~flood flow. Normally they are maintained during the winter period. a~~
10 logging road that is part of the permanent road network and is
11 planned, constructed, and maintained for year-round use.

12
13 **Permanent Road Network** means the permanent, seasonal, ~~and~~ temporary,
14 and deactivated roads, including appurtenant roads, that provide the
15 infrastructure necessary for timber operations and forest management.

Comment [e3]: 9/11 Staff suggested edits for clarity.

16
17 **Permanent Watercourse Crossing** means a watercourse crossing that ~~will~~
18 ~~be constructed to accommodate the estimated fifty year flood flow and~~
19 will remain in place when timber operations have been completed.

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

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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.

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; **outsloping**, installation and maintenance of rolling and critical dips; restoring functional capacity of inboard ditches, cross drains, or culverts; and repairing water bars.

Comment [e4]: 9/11 Staff proposed inclusion of P.Ribar's edit to include "outsloping."

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, the section (p) is chosen by the FPC. FPC also notes that this definition is intended to address approaches at watercourse crossing, to various water bars, dips, away from water course crossings.

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1 **DFG Option: Road Prism** means all parts of a road including cut banks,
2 ditches, road surfaces, road shoulders, and road fills.

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

20
21 **Sidecast** means excess earthen material pushed or dumped ~~to or~~ over the
22 side of a roads or landings.

Comment [e5]: Duplicate

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

Deleted: .¶

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Comment [e6]: 9/11 FPC proposed deletion of definition. Term has limited use in rule plead-definition seems unnecessary.

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

Deleted: .

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1 Significant sediment discharge⁴ means sediment that is currently, or
2 may be in the future, discharged to watercourses or lakes in
3 quantities that violate of Water Quality Requirements or result in
4 significant individual or cumulative adverse impacts to the beneficial
5 uses of water.

6
7 Significant existing or potential erosion site means a location where
8 sediment is currently, or may be in the future, discharged to
9 watercourses or lakes in quantities that violate Water Quality
10 Requirements or result in significant individual or cumulative adverse
11 impacts to the beneficial uses of water.⁵ A site that is eroding but is
12 not delivering, nor has the potential to deliver sediment to a water
13 body, is not a significant existing or potential erosion site.⁶

14
15 **Temporary Road** means a logging road that is to be used only during the
16 timber operations and that will be deactivated or abandoned upon
17 completion of use. ~~These roads have a surface adequate for seasonal~~
18 ~~logging use and have drainage structures, if any, adequate to carry~~
19 ~~the anticipated flow of water during the period of use.~~

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

22
23 ⁴ New definition proposed by Board staff in January 2011 to standardize
24 sediment discharge prevention language used throughout the Road Rules.
25 Endorsed by FPC on 5/4/11.

⁵ Added on 12/20/10 by BOF staff as a result of usage proposed by FPC in
section 923.1 (d). Endorsed by FPC.

⁶ BOF staff revision to definition based on adaptation of language used in the
NCRWQCB ECP guidance document for the Scott River. Endorsed by FPC.

1
2 Through Fill means a section of road upon constructed fill that lies
3 above the adjacent ground level on both sides of the road.

4
5 Amend 14 CCR § 914.7 [934.7, 954.7]. Timber Operations, Winter
6 Period.

7 During the winter period:

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

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

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

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

26 (1) Tractor yarding or the use of tractors for constructing
27 layouts, firebreaks or other tractor roads shall be done only during
28 dry, rainless periods and shall not be conducted on saturated soils
29 conditions that may produce significant sediment discharge. ~~sediment~~
30 ~~in quantities sufficient to cause a visible increase in turbidity of~~

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1 ~~downstream waters in receiving Class I, II, III or IV waters or that~~
2 ~~violate Water Quality Requirements.~~

3
4 **Amend § 914.8 [934.8, 954.8] Tractor Road Watercourse Crossing**

5 (d) ~~Tractor road~~ ~~W~~watercourse crossing facilities ~~not constructed to~~
6 ~~permanent crossing standards on tractor roads~~ shall be removed and
7 stabilized before the beginning of the winter period. ~~If a~~
8 ~~watercourse crossing is to be removed, it shall be removed in~~
9 ~~accordance with~~ to the standards of 14 CCR § 923.3(d) [943.3(d),
10 963.3(d)] 923.17 [943.17, 963.17], subsections(a)-(c) . The RPF may
11 propose an exception if explained and justified in the plan and found
12 by the Director to be in conformance with this article.

13
14 **Amend 14 CCR § 915.1 [935.1, 955.1]. Use of Heavy Equipment for Site**
15 **Preparation.**

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

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

24
25 **Amend § 916.3 [936.3, 956.3]. General Limitations Near Watercourses,**
Lakes, Marshes, Meadows and Other Wet Areas

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1 (c) The timber operator shall not ~~construct or reconstruct roads,~~
2 construct or use tractor roads ~~or landings~~ in Class I, II, III or IV
3 watercourses, in the WLPZ, marshes, wet meadows, and other wet areas
4 unless when explained and justified in the ~~THP~~ plan by the RPF, and
5 approved by the Director, except as follows:

6 (1) At prepared tractor road crossings as described in 14 CCR §
7 914.8(b) [934.8(b), 954.8(b)].

8 (2) Crossings of Class III watercourses ~~which~~ that are dry at
9 the time of ~~timber operations~~ use.

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

11 ~~(4)~~(3) At new tractor ~~and~~ road crossings approved as part of
12 the Fish and Game Code process (F&GC 1600 et seq.).

13 ~~Use of existing roads is addressed in 916.4(a) [936.4(a),~~
14 ~~956.4(a)].~~

15

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

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

20 (1) As part of this field examination, the RPF or
21 supervised designee shall evaluate areas near, and areas with the
22 potential to directly impact, watercourses and lakes for sensitive
23 conditions including, but not limited to, ~~existing and proposed roads,~~

24

25

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1 skidtrails ~~and landings~~⁷, unstable and erodible watercourse banks,
2 unstable upslope areas, debris, jam potential, inadequate flow
3 capacity, changeable channels, overflow channels, flood prone areas,
4 and riparian zones wherein the values set forth in 14 CCR §§ 916.4~~(b)~~
5 [936.4~~(b)~~, 956.4~~(b)~~], subsection(b) are impaired. *****

6
7 **Amend § 916.9 [936.9, 956.9]. Protection and Restoration of the**
8 **Beneficial functions of the Riparian Zone in Watersheds with Listed**
9 **Anadromous Salmonids.**

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

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

22 Watersheds which do not meet the definition of "watersheds with
23 listed anadromous salmonids" are not subject to this section except as
24 follows: The provisions of 14 CCR 916.9 [936.9, 956.9], subsections
25 (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

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).

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1 listed anadromous salmonids, not otherwise designated above, may be
2 subject to these provisions based on an assessment consistent with
3 cumulative impacts assessment requirements in 14 CCR §§ 898 and 912.9
4 [932.9, 952.9] and Technical Rule Addendum No. 2, Cumulative Impacts
5 Assessment. These requirements do not apply to upstream watersheds
6 where permanent dams attenuate the transport of fine sediment to
7 downstream watercourses with listed anadromous salmonids.*****

8
9 *******(f) Class I watercourses -**

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

13 **(A)** Clear and enforceable specifications of timber
14 operations within the Class I WLPZ, including a description of how any
15 disturbance, or log or tree cutting and removal shall be carried out
16 to conform with 14 CCR §§ 916.2 [936.2, 956.2], subsection (a) and
17 916.9 [936.9, 956.9], subsection (a).

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

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

24 ~~**(D)** Clear and enforceable specifications for construction
25 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~~

(EB) Documentation of how proposed harvesting in the WLPZ
contributes to the objectives of each zone stated in 14 CCR § 916.9

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1 [936.9, 956.9], subsection (c) and other goals in 14 CCR § 916.9

2 [936.9, 956.9], subsection (a) (1)-(8). Documentation shall include
3 the examinations, analysis, and other requirements listed in 14 CCR §
4 916.4 [936.4, 956.4], subsection (a).*****

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

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

9 - ~~4. Avoid Road and Landing Use: All new roads and~~
10 ~~landings shall be located outside of zone. When feasible, minimize~~
11 ~~use of existing roads and landings in the flood prone area. No~~
12 ~~servicing of equipment within the flood prone area. Exceptions~~
13 ~~include the use of roads and landings to accomplish actions to~~
14 ~~improved salmonid habitat conditions stated 14 CCR § 916.9 [936.9,~~
15 ~~956.9]. subsection (f)(3)(E(1.) above.~~

16 ~~5.4.~~ Avoid Slash concentration and site
17 preparation:***** and pile burning.

18 ~~6.5.~~ Delineate Zone on the Ground:***** Locations
19 of all WLPZ zones and CMZs shall be designated on the ground.

20 ~~7.6.~~ Avoid Use of Water Drafting Sites:***** or
21 stream alteration permits.

22 ~~8.7.~~ Avoid Disturbance to Critical Flood Prone
23 Area Habitat::***** and down large woody debris.

24 (F) Outer Zone:*****

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

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1 (1)⁸ Logging roads, landings or ~~T~~tractor roads shall not be
2 used when operations may result in significant sediment discharge
3 ~~visibly turbid water from the road, landing or tractor road (skid~~
4 ~~trail) or an inside ditch associated with the logging road, landing or~~
5 ~~tractor road may produce sediment in quantities sufficient to cause a~~
6 ~~visible increase in turbidity of downstream waters in receiving Class~~
7 ~~I, II, III or IV waters or violate Water Quality Requirements.~~

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

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

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

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25 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.

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

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

7 (1) No timber operations shall take place unless the approved
8 plan incorporates a complete winter period operating plan pursuant to
9 14 CCR § 914.7 [934.7, 954.7], subsection (a) that specifically
10 addresses, where applicable, proposed ~~logging road, landing or tractor~~
11 ~~road construction, reconstruction and use during the extended wet~~
12 ~~weather period. Where logging road watercourse crossing construction~~
13 ~~or reconstruction is proposed an implementation schedule shall be~~
14 ~~specified.~~

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

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

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

4 ***** (n) **Treatments to stabilize soils** - Within the WLPZ, and within
5 any ELZ or EEZ designated for watercourse or lake protection,
6 treatments to stabilize soils, minimize soil erosion, and prevent
7 ~~significant sediment discharge the discharge of sediment into~~
8 ~~watercourses or lakes in amounts deleterious to aquatic species or the~~
9 ~~quality and beneficial uses of water, or that threaten to violate~~
10 ~~applicable water quality requirements~~, shall be described in the plan
11 as follows.

12 (1)*****

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

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

20 (3)*****

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

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

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1 ***** (r) Section reserved for future use. Water drafting — Water
2 drafting for timber operations shall:

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

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

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

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

12 (B) a map showing proposed water drafting locations;

13 (C) the watercourse classification;

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

18 (E) the estimated drainage area (acres) above the point
19 of diversion;

20 (F) the estimated unimpeded streamflow, pumping rate, and
21 drafting duration;

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

(H) a discussion of proposed alternatives and measures to

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1 ~~prevent adverse effects to fish and wildlife resources, such as~~
2 ~~reducing hose diameter; using gravity-fed tanks instead of truck~~
3 ~~pumping; reducing the instantaneous or daily intake at one location;~~
4 ~~describing allowances for recharge time; using other dust palliatives;~~
5 ~~and drafting water at alternative sites; and _____~~

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

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

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

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

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

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

~~4. The approach velocity (water moving through the~~

1 ~~screen) shall not exceed 0.33 feet/second.~~

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

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

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

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

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

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

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

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

~~(F) The drafting operator shall keep a log that records~~

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1 ~~for each time water is drafted, the date, total pumping time, pump~~
2 ~~rate, starting time, ending time, and volume diverted. Logs shall be~~
3 ~~filed with the Department of Forestry and Fire Protection at the end~~
4 ~~of seasonal operations and maintained with the plan record. This~~
5 ~~requirement may be modified in the approved plan that covers the water~~
6 ~~drafting, but only with concurrence from the Department of Fish and~~
7 ~~Game.~~

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

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

14
15 Amend § 918.3 [938.3, 958.3]. Roads to be Kept Passable

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

19
20 Amend Article 12. [Article 11. Northern] Logging Roads, Landings, and
21 Logging Road Watercourse Crossings. Logging Roads and Landings

22
23 Amend § 923 [943,963]. Intent for Logging Roads, Landings, and Logging
24 Road Watercourse Crossings Logging Roads and Landings.

25 (a) All logging roads, landings, and logging road watercourse
crossings in the logging area shall be planned, constructed,

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1 reconstructed, used, maintained, removed, abandoned, and deactivated
2 in a manner that:

3 (1) Is consistent with long-term enhancement and maintenance of
4 the forest resource.

5 (2) Accommodates appropriate yarding systems.

6 (3) Is economically feasible.

7 (b) Such planning, construction, reconstruction, use, maintenance,
8 removal, abandonment, and deactivation shall occur in a manner that
9 minimizes potential adverse impacts to, among other things:¹⁰

10 (1) Public safety.

11 (2) Fish and wildlife habitat.

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

13 (4) Soil resources.

14 (5) Significant archeological and historical sites.

15 (6) Air quality.

16 (7) Visual resources.

17 (8) Worker safety.

18 (9) Fire hazard.

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

22 (d) Exceptions may also be provided through application of Fish and
23 Game Code Sections 1600 et seq. and shall be made an enforceable part

24 _____
25 ¹⁰ FPC endorsement from March 2010: standardizes language for intent of
minimizing impacts.

Comment [e7]: 9/11 Staff proposed strikeout. Existing language "forest resource" is adequately inclusive.

Deleted: NMFS OPTION 1/3/11 and aquatic CGS Option natural

Deleted: 2

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1 of the plan in accordance with 14 CCR §§ 1039, 1040, 1090.14, 1092.26,
2 or 1092.27, as appropriate.

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

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

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

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

18 (4) A valid ~~Habitat~~ Conservation Plan (~~HCP~~) that addresses
19 anadromous salmonid protection, approved under Section 10 of the
20 federal Endangered Species Act of 1973; or

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

Comment [e8]: 9/11 Staff proposed strikeout. HCP is common term used by federal agencies for FESA incidental take authorization and is best known as such by regulated public. See USFWS fact sheet for corroboration: <http://www.fws.gov/endangered/esa-library/pdf/hcp.pdf>

Deleted: NMFS OPTION 1/3/11 Habitat

Comment [e9]: 9/11 Staff proposed strikeout. NMFS Option language is redundant to comprehensive ASP Rules package. Proposed language defeats purpose and charge of RRTF to uncouple and reorganize all road-related rule sections into one portion of rulebook.

Deleted: (f) NMFS OPTION 1/3/11 In addition to all other district Forest

Deleted: 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). [1]

1 Amend § 923.1[943.1, 963.1]. Planning for Logging Roads and Landings.

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

3 (a) Logging roads and landings shall be planned and located within
4 the context of a systematic layout pattern that considers 14 CCR §
5 923(b), uses existing logging roads and landings where feasible and
6 appropriate, provides access for fire and resource protection
7 activities, and minimizes the following¹¹:

8 (1) Total road mileage.

9 (2) The number of logging road watercourse crossings.

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

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

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

16 (6) Activities near nesting sites¹¹ of rare, threatened, or
17 endangered bird species.

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

20 (8) Ground disturbance, cuts, and fills.

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

24 _____
25 ¹¹ FPC decision point from March 2010: Standardizes language for intent of
minimizing impacts.

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

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

7 (1) At existing logging road watercourse crossings.

8 (2) At constructed or reconstructed logging road watercourse
9 crossings approved as part of the Fish and Game Code process (F&GC
10 1600 et seq.)

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

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

19 (d)¹² As part of the planning and use of logging roads landings, and
20 watercourse crossings in the logging area, the RPF or supervised
21 designee shall evaluate and document sensitive conditions and

22
23 ¹² On January 4, 2011, the FPC determined to include in the Road Rules 2011
24 proposal for erosion site assessments section 923.1 (d). This decision
25 results in the RRTF proposals in 923.2 (f), the existing ASP rules 916.9 (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
where (o) does not.

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1 significant existing and potential erosion sites, and specify and
2 schedule feasible treatments.

3 (1) During the field examination of classified watercourses and
4 lakes required under 14 CCR § 916.4 [936.4, 956.4], the RPF or
5 supervised designee shall evaluate watercourse areas near existing,
6 constructed, and reconstructed logging roads and landings in the
7 logging area for significant existing and potential adverse impacts to
8 sensitive conditions. Sensitive conditions include, but are not
9 limited to, unstable and erodible watercourse banks, unstable upslope
10 areas, channels with inadequate flow capacity, changeable channels,
11 overflow channels, flood prone areas, debris jam potential, aggraded
12 channels, and riparian zones wherein the values set forth in 14 CCR
13 916.4 [936.4, 956.4], subsection (b) are impaired.

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

17 (3) The RPF shall consider the sensitive conditions and
18 significant existing and potential erosion sites identified by
19 sections 14 CCR § 923.1 [943.1, 963.1] subsections(d)(1) and (2), and
20 the measures needed to maintain and restore, to the extent feasible,
21 the functions set forth in 14 CCR § 916.4 [936.4, 956.4], subsection
22 (b) when planning logging roads and landings. Key factors to consider
23 as part of developing necessary measures include:

24 (A) Type of road (permanent all-season, seasonal, or
25 temporary road), road location, expected log truck haul routes, and

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1 traffic use (e.g. volume and season) of each road segment during the
2 life of the plan.

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

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

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

11 (E) The erodibility of hillslope material exposed by the
12 road.

13 (F) The length of hydrologic connectivity of a road
14 segment, the physical properties of the connected segment and the
15 presence or absence of erosion resistant material along the connected
16 segment.

17 (G) Site-specific information regarding the condition of
18 and location of all existing or potential sediment sources including,
19 but not limited to: watercourse crossings, road approaches, ditch
20 relief culverts, road surfaces, road cuts, road fills, inboard
21 ditches, through-cuts, and landings.

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

25 (5) A list of the significant existing and potential erosion
sites identified in 14 CCR § 923.1 [943.1, 963.1], subsection (d)(2)

Comment [e10]: 9/11 Staff proposed strikeout of NMFS Option. Proposed language is redundant to this and the following rule section. Proposed NMFS language provides no additional benefit to rule section.

Deleted: , NMFS OPTION 1/3/11 including mass wasting potential of roads in

Deleted: unstable areas such as, but not limited to inner gorges and headwall swales

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1 which have feasible treatments shall be submitted with the plan and
2 shall require the following information:

3 (A) A map showing the location(s) of significant existing
4 and potential erosion site(s) with a unique identifier for each site.¹³

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

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

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

11 (6) Disclose and map the significant existing and potential
12 erosion sites¹⁴ identified in 14 CCR § 923.1 [943.1, 963.1], subsection
13 (d)(2), for which no feasible treatment measures exist.

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

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

23 ¹³ The FPC intent for listing significant existing and potential erosion site(s) with a
24 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.

25 ¹⁴ 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.

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1 (f)¹⁵ In watersheds with listed anadromous salmonids and in planning
2 watersheds immediately upstream of, and contiguous to, any watershed
3 with listed anadromous salmonids, where logging road or landing
4 construction or reconstruction is proposed, the plan shall identify:

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

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

11 (g) In watersheds with listed anadromous salmonids no logging roads
12 or landings shall be planned for construction or reconstruction in the
13 CMZ or Core Zone of a Class I watercourse except those listed in 14
14 CCR § 916.9(e)(1)(A)-(E) [936.9(e)(1)(A)-(E), 956.9(e)(1)(A)-(E)] or
15 pursuant to 14 CCR § 916.9(v) [936.9(v), 956.9(v)].

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

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

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

24 _____
25 ¹⁵ FPC decision point from April 2010: Use optional language proposed by the RRTF for consistency with preamble to intent sections in 923. Deletes language adopted in ASP rules in 2009.

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

4
5 Amend § 923.2 [943.2, 963.2]. Design and Implementation for Logging
6 Roads and Landings ~~Road Construction~~.

7 Constructed and reconstructed logging roads and landings¹⁶ shall be
8 designed and implemented in accordance with their proposed use,
9 maintenance requirements, and the approved plan:

10 (a) All logging roads and landings shall:

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

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

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

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

18 (5) Be hydrologically disconnected from watercourses and lakes to
19 the extent feasible.¹⁷

20 (6) Include adequate drainage structures and facilities¹⁸
21 necessary to avoid concentrating and diverting runoff, to minimize

22
23 ¹⁶ FPC decision point from May 2010: Rejected DFG comments to widen
24 application of design standards to all roads and instead retained focus on
roads to be constructed or reconstructed.

25 ¹⁷ 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.

¹⁸ FPC decision point from May 2010: Rejects DFG option to include "road
rocking" as a method for adequate drainage structure. FPC desires to retain

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1 erosion of roadbeds, landing surfaces, drainage ditches, sidecast and
2 fills, to minimize the potential for soil erosion and sediment
3 transport, and to prevent significant sediment discharge.

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

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

18 (c) Excess material excavated during logging road and landing
19 construction shall not be transported to disposal sites where it may
20 result in significant sediment discharge.

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

23 (1) Be no wider than a single-lane compatible with the largest
24 type of equipment specified for use on the logging road, with adequate

25 performance standard language to allow maximum flexibility to implement technologies that accomplish the intent of sections to provide adequate drainage structures and facilities.

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1 turnouts provided as required for safety unless prohibited by existing
2 contracts with the U.S.D.A. Forest Service or other federal agency.

3 (2) Avoid grades greater than 20% or grades greater than 15% that
4 extend greater than 500 continuous feet. Exceptions may be approved
5 where there is no other feasible access for harvesting of timber or
6 where use of a gradient greater than 20% will serve to reduce soil
7 disturbance.

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

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

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

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

15
16 **Amend § 923.3 [943.3, 963.3]. Mapping and Identification for Logging**
17 **Roads and Landings ~~Watercourse Crossings~~.**

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

20 (a) For logging road- and landing-related mapping requirements refer
21 to 14 CCR §§ 1034(x)(4)(A)-(B) and (5)(A)-(L), 1090.5(w)(4)-(6),
22 1090.5(hh), 1090.7(n)(4)-(6), and 1092.09(l)(5)(A)-(B) and (6)(A)-(L).

23 (b) For logging road- and landing-related disclosure and description
24 requirements refer to 14 CCR §§ 1034(bb), ~~RRTF Option 1 1034(hh)~~
25

1 (RRTF Option 2 If Option 1 under 1034(hh) is not adopted, do not
2 adopt Option 1), 1034(ii)(1)-(5), 1034(jj)(1)-(17), 1034(kk)(1)-(3)
3 and (4)(A), 1034(mm) and 1090.5(gg).

4 ~~(c) RRTF Option 1 For logging road and landing related~~
5 ~~identification requirements refer to 14 CCR § 1034(hh).~~

6 (RRTF Option 2 If Option 1 under 1034(hh) is not adopted, do not
7 adopt the contents of subsection 923.3(c) [943.3(c), 963.3(c)]
8 proposed under Option 1 and and begin re-numbering subsection (d) as
9 (c) and (e) as (d).)

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

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

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

17 ~~(e)~~(d) The location of all logging roads to be constructed or
18 reconstructed shall be flagged or otherwise identified on the ground
19 prior to the pre-harvest inspection. Exceptions may be explained and
20 justified in the plan and agreed to by the Director if flagging is
21 unnecessary as a substantial aid to examining: (1) compatibility
22 between logging road location and yarding and silvicultural systems,
23 or (2) possible significant adverse effects of logging road location
24 on the factors listed under 14 CCR § 923(b) [943(b), 963(b)].
25

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

3 Logging roads and landings shall be constructed or reconstructed in
4 accordance with the approved plan and the following requirements. If
5 a change in designation of logging road classification is made after
6 the plan is approved, the change shall be reported in accordance with
7 14 CCR §§ 1039, 1040, 1090.14, 1092.26 or 1092.27, as appropriate.

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

11 (b) Logging roads or landings shall not be constructed or
12 reconstructed in Class I, II, III, or IV watercourses or lakes, the
13 WLPZ, marshes, wet meadows, or other wet areas, except for logging
14 road watercourse crossings or as specified in the plan.¹⁹

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

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

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

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

24 _____
25 ¹⁹ Option for 150 foot distance from WTL for new road construction recommended
by Staff and science team.

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

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

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

12 (j)²⁰ Logging roads or landings shall not be constructed or
13 reconstructed under saturated soil conditions, except that
14 construction may occur on isolated wet spots arising from localized
15 ground water such as springs, provided measures are taken to prevent
16 significant sediment discharge.

17 (1) Construction or reconstruction operations shall not be
18 conducted when saturated soils do not allow meeting standard
19 engineered compaction methods.²¹

20 (k) Construction or reconstruction of logging roads or landings
21 shall not take place during the winter period unless the approved plan
22 _____

23 ²⁰ The language shown is a combination of existing FPRs 923.2 (r) and 923.5
24 (e) that were adopted by the BOF on 9/7/10. These two sections are existing
25 FPRs for construction of roads and construction of landings. They were
merged here for consistency with format the RRTF suggested. The language was
endorsed by the FPC on May 3, 2011.

²¹ Subsection 923.4 (j)(1) is added to ensure that construction standards are
maintained during operations on saturated soils.

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1 incorporates a complete winter period operating plan pursuant to 14 §
2 CCR 914.7 [934.7, 954.7], subsection (a) that specifically addresses
3 such logging road or landing construction or reconstruction.

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

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

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

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

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

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

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

23 (1) Public safety.

24 (2) Areas that could deliver significant sediment discharge.

25 (q) Where conditions are encountered during logging road or landing
construction or reconstruction that differ from what was anticipated

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1 during the preparation and review of the plan and that will result in
2 a significant adverse impact on the environment or to public safety,
3 the LTO shall inform the RPF or plan submitter of these unanticipated
4 conditions in accordance with 14 CCR § 1035.3. If necessary, the
5 responsible RPF or plan submitter shall submit to the Director a
6 deviation to the plan describing the unanticipated conditions and
7 proposing appropriate actions.

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

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

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

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

20 (B) Where cutbank stability is not an issue, logging roads
21 may be constructed as a full-benched cut (no fill). Spoils not
22 utilized in logging road construction shall be disposed of in stable
23 areas with less than 30 percent slope outside of any WLPZ, EEZ, or ELZ
24 designated for watercourse or lake protection. The Director, with
25 concurrence from other responsible agencies, may waive inclusion of
these measures where the RPF can show that slope depressions and other

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1 natural retention and detention features are sufficient to control
2 overland transport of eroded material.

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

5 (i) If properly engineered, or,

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

8 (2) During the extended wet weather period, no timber
9 operations shall take place unless the approved plan incorporates
10 a complete winter period operating plan pursuant to 14 CCR §
11 914.7[934.7, 954.7]subsection (a) that specifically addresses,
12 where applicable, proposed logging road or landing construction,
13 reconstruction. ²²

14
15 **Amend § 923.5 [943.5,963.5]. Erosion Control for Logging Roads and**
16 **Landings-Landing Construction.**

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

19 (a) All logging road and landing surfaces shall be adequately drained
20 through the use of surface geometry configurations in combination with

21 _____
22 ²² DFG comment for adding 923.4 (s) (3) contained in the May 20 2010
23 version was deleted(**(3 DFG Option)** No road or landing construction,
24 reconstruction, or decommissioning shall be undertaken during the extended wet
25 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
923.4 (s) (2). The mention of hydrologic disconnection was added by the FPC in
923.2 (a) (5)

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1 the installation of drainage structure or facilities²³ and shall be
2 hydrologically disconnected from watercourses and lakes to the extent
3 feasible.²⁴

4 (b) Drainage facilities ~~ditch drains~~ shall be installed along all
5 logging roads and all landings that are used for timber operations in
6 sufficient number to minimize soil erosion and sediment transport and
7 to prevent significant sediment discharge.

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

- 10 (1) Be adequately sized to transmit runoff.
- 11 (2) Minimize erosion of logging road and landing surfaces.
- 12 (3) Avoid discharge onto fill.
- 13 (4) Discharge to erosion resistant material²⁵.
- 14 (5) Minimize potential adverse impacts to slope stability.

15 (d) Waterbreaks and rolling dips installed across logging roads and
16 landings shall be of sufficient size and number and be located to ²⁶
17 avoid collecting and discharging concentrated runoff onto fills,
18 erodible soils, unstable areas, and connected headwall swales.

19
20 ²³ Added "facilities for consistency with other sections. This is a more encompassing
term for all type of drainage features associated with a road.

21 ²⁴ Amendments to subsection 923.5 (a) were added to include the CGS amendment for
hydrologic disconnection for drainage facilities.

22
23 ²⁵ CGS recommends rejection of DFG Option to use term "sediment filter strip" because
it is covered in 923.5 (h). FPC chose on 6/8/11 to not use the term "sediment filter
strip" and rely on language and standards in 923.5 (h) to achieve the goals requested
24 by DFG.

25 ²⁶ GS recommends rejection of DFG Option to use term "sediment filter strip" because it
is covered in 923.5 (h). FPC chose on 6/8/11 to not use the term "sediment filter
strip" and rely on language and standards in 923.5 (h) to achieve the goals requested
by DFG.

Comment [e11]: 9/11 Staff
proposed edit for
consistency with
923.14(a)(3).

Deleted: or DFG OPTION
drainage structures

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1 (e) Where logging roads or landings do not have permanent and
2 adequate drainage, and where waterbreaks are to be used to control
3 surface runoff, the waterbreaks shall be cut diagonally a minimum of
4 six inches into the firm roadbed and shall have a continuous firm
5 embankment of at least six inches in height immediately adjacent to
6 the lower edge of the waterbreak cut. On logging roads that have
7 firmly compacted surfaces, waterbreaks may be installed by hand
8 methods and need not provide the additional six-inch embankment
9 provided the waterbreak ditch is constructed so that it is at least
10 six inches deep and six inches wide on the bottom and provided there
11 is ample evidence based on slope, material, amount of rainfall, and
12 period of use that the waterbreaks so constructed will be effective in
13 diverting water flow from the logging road surface without the
14 embankment.

15 (f) Distances between waterbreaks shall not exceed the following
16 standards and consider erosion hazard rating and road gradient:

17 MAXIMUM DISTANCE BETWEEN WATERBREAKS

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

22 (g) Where outsloping and rolling dips are used to control surface
23 runoff, the dip in the logging road grade shall be sufficient to
24 capture runoff from the logging road surface. The steepness of cross-
25 slope gradient in conjunction with the logging road or landing

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1 gradient and the estimated soil erosion hazard rating shall be used to
2 determine the rolling dip spacing in order to minimize soil erosion
3 and sediment transport and to prevent significant sediment discharge.

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

9 (ii) Where logging road and landing surfaces, road approaches²⁷,
10 inside ditches and drainage structures cannot be hydrologically
11 disconnected, and where there is existing or the potential for
12 significant sediment discharge, necessary and feasible treatments to
13 prevent the discharge will be described in the plan.

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

21 _____
22 ²⁷ Inclusion this subsection recommended by the FPC in at the July 6th, 2010
23 committee meeting is to address surface erosion and for roads in all
24 locations. Amendments were made to this section as a result of discussion at
25 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.

1 (j) Where logging road or landing construction or reconstruction
2 takes place during the extended wet weather period, drainage
3 facilities and drainage structures shall be installed concurrent with
4 construction or reconstruction operations.

5
6 (k) Bare soil on logging road or landing cuts, fills, transported
7 spoils, or sidecast that is created or exposed by timber operations
8 shall be stabilized to the extent necessary to minimize soil erosion
9 and sediment transport and to prevent significant sediment discharge.
10 Bare soil stabilization treatments for road surfaces are addressed in
11 other subsection.²⁸ Sites to be stabilized include, but are not limited
12 to:

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

16 (2) Cut and fills associated with approaches to logging road
17 watercourse crossings²⁹ of Class I or II waters or Class III waters
18 where an ELZ, EEZ, or a WLPZ is required.

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

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

²⁹ 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.

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

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

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

Comment [e12]: 9/11 Staff believes this DFG Option to use "extended wet weather operating period" instead of "October 15" was endorsed by FPC previously and suggests that it be incorporated as such at this time.

Comment [e13]: 9/11 Ditto

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

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

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

Comment [e14]: 8/11 FPC
decision to retain CGS
language.

5 (2) In addition to the provisions listed under 14 CCR §
6 923.2(d)(2) [943.2(d)(2), 963.2(d)(2)], all permanent and seasonal
7 logging roads with a grade of 15 percent or greater that extend 500
8 continuous feet or more shall have specific erosion control measures
9 stated in the plan.

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

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

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

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

20 (iii) Any other area of disturbed soil that threatens
21 to cause significant sediment discharge.

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

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1 (C) Where slash mulch is packed into the ground surface
2 through the use of a tractor or equivalent piece of heavy equipment
3 the minimum slash coverage shall be 75 percent. ~~7 DFG-OPTION and any~~
4 ~~treated area that has been reused or has less than 75 percent surface~~
5 ~~cover shall be treated again by the end of timber operations.~~

Comment [e15]: 8/11 FPC decision to strike proposed language but consult with DFG on this change. DFG okay with this change as of 8/11.

6 (D) For areas disturbed outside of the extended wet weather
7 period, treatment shall be completed prior to the start of any rain
8 that causes overland flow across or along the disturbed surface that
9 could result in significant sediment discharge.

10 (E) For areas disturbed during the extended wet weather
11 period, treatment shall be completed prior to any day for which a
12 chance of rain of 30 percent or greater is forecast by the National
13 Weather Service or within 10 days of disturbance, whichever is
14 earlier.

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

21
22
23
24 Amend § 923.6 [943.6, 963.6]. Use of Logging Roads and Landings
25 Conduct of Operations on Roads and Landings.

The following use standards shall apply to logging roads and

1 landings:

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

4 (b) Logging roads and landings shall not be used during any time of
5 the year when operations may result in significant sediment discharge
6 to watercourse or lakes³⁰, except in emergencies to protect the road,
7 to reduce erosion, to protect water quality, or in response to public
8 safety needs.

9 (c) Log hauling or other heavy equipment uses³¹ shall be limited to
10 logging roads and landings which are hydrologically disconnected from
11 watercourses to the extent feasible and exhibit a stable operating
12 surface³². Use may occur on limited segments of roads or landings that
13 do not exhibit a stable operating surface when the road segment or

14
15
16
17
18 ³⁰ (add to 895.1) **Significant sediment discharge** means sediment that is
19 currently, or may be in the future, discharged to watercourses or lakes in
20 quantities that violate of Water Quality Requirements or result in
21 significant individual or cumulative adverse impacts to the beneficial uses
22 of water. Subsection (a) and (b) endorsed by FPC on May 3, 2011.

23 ³¹ Terminology for "other heavy equipment" was added in various sections to
24 provide clarity that the requirements for road use apply not only for log
25 hauling but also for other heavy equipment uses such as low bed transport
equipment, watertrucks, skidding or walking skidders.

26 ³² 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. FPC tentatively endorsed subsection (c) May 3,
2011, pending a discussion and report from CAL Fire on the effectiveness and
enforceability of the term "stable operation surface"

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1 landing is completely, and at all times, hydrologically disconnected
2 from a watercourse and equipment can operate under its own power³³.

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

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

9 (f) Temporary roads shall be blocked or otherwise closed to
10 standard production four-wheel drive highway vehicles prior to the
11 winter period.

Comment [e16]: 8/11 FPC decision to support RRTF Option 2 language consistent with existing rule language.

12 (g)³⁴ Logging roads and landings used for log hauling or other heavy
13 equipment uses during the winter period shall occur on a stable
14 operating surface and, where necessary, surfaced with rock to a depth
15 and quantity sufficient to maintain such a surface. Use is not
16 permitted on roads which are hydrologically connected and exhibit
17 saturated soil conditions. Use may occur when logging roads and
18 landings are generally firm and easily passable or during hard frozen

21 _____
22 ³³ Exceptions are permitted for use on limited road segments or landings that
23 are completely (voiding the "to the extent feasible") and at all times,
24 (meaning before during and after use) hydrologically disconnected and
25 equipment can operate under its own power.

³⁴ FPC tentatively endorsed subsection (g) on May 3, 2011, pending a discussion and report from CAL Fire on the effectiveness and enforceability of the term "stable operation surface"

~~conditions. Isolated wet spots on these logging roads or landings shall be rocked or otherwise treated to permit passage³⁵.~~

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.

(h)³⁷ In watersheds with listed anadromous salmonids and in planning watersheds immediately upstream of, and contiguous to, any watershed with listed anadromous salmonids³⁸, 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.

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. The rule further states that at no times shall road use occur on road segments that exhibit saturated soils conditions.

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.

³⁷ FPC endorsed subsection (h) on May 3, 2011.

³⁸ All ASP specific road use erosion control rules are applied to both ASP watersheds upstream contiguous watersheds.

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

4 (3) Concurrent with use for log hauling or other heavy equipment
5 uses, all³⁹ road approaches to logging road watercourse crossings shall
6 be treated for erosion control as needed to minimize soil erosion and
7 sediment transport and to prevent significant sediment discharge to
8 watercourses or lakes.

9 (4) Concurrent with use for log hauling or other heavy equipment
10 uses, all traveled surfaces of logging roads in a WLPZ, and ELZ or EEZ
11 designated for watercourse or lake protection, ~~DFG OPTION or the~~
12 ~~appurtenant roads associated with undesignated watercourses⁴⁰~~, shall be
13 treated for erosion control as needed to minimize soil erosion and
14 sediment transport and to prevent significant sediment discharge to
15 watercourses or lakes.

16 (5) No timber operations shall take place during the extended wet
17 weather period unless the approved plan incorporates a complete winter
18 period operating plan pursuant to 14 CCR § 914.7(a) [934.7(a),
19 954.7(a)] that specifically addresses, where applicable, proposed
20 logging road or landing use.

21 ³⁹ Language is added (923.6 (h)(3)) to specify that all road approaches shall
22 be treated for erosion control, not just those which are hydrologically
23 connected (as required by 923.5 (ii)).

24 ³⁹ DFG option to address road used for hauling near watercourses that are
25 appurtenant roads and currently not subject to this provision. Allows a
variable treatment area for appurtenant road watercourse crossings. CGS
comment: This option has not been discussed by the RRTF and could result in
unanticipated costs as worded.

Comment [e17]: 8/11 FPC tentative decision to strike DFG option, but follow up with DFG representative. DFG okay with decision as of 8/11.

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) Logging road and landing surfaces shall be monitored and maintained during timber operations and throughout the prescribed maintenance period to minimize soil erosion and sediment transport and to prevent significant sediment discharge.

Comment [e18]: 7/11 Staff proposed edit for clarity.

(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, 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, when maintenance is needed to protect the quality and beneficial uses of water.

Comment [e19]: 9/11 FPC preference to strike DFG Option.

Deleted: DFG OPTION as soon as feasible

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

(f) Soil stabilization treatments on logging road or landing cuts, fills, and sidecast shall be maintained as needed to minimize soil

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1 erosion and sediment transport and to prevent significant sediment
2 discharge.

3 (g) Actions shall be taken as needed to reduce the potential for
4 failures of cuts, fills, or sidecast that could result in significant
5 sediment discharge.

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

10 (i) Where evidence of substantial soil erosion and significant
11 sediment discharge is present along a logging road or landing used for
12 timber operations, additional drainage facilities and structures shall
13 be installed as needed to minimize soil erosion and sediment transport
14 and to prevent significant sediment discharge.

15 (j) The prescribed maintenance period for erosion controls on
16 permanent and seasonal logging roads and associated landings and
17 drainage structures, which are not abandoned or deactivated in
18 accordance with 14 CCR §§ 923.8 [943.8, 963.8] and 923.17 [943.17,
19 963.17], shall be at least one year. The Director may prescribe a
20 maintenance period extending up to three years in accordance with 14
21 CCR § 1050.

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

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

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(1) Comply with Fish and Game Code Section 1600, et seq. Timber operations conducted under a Fish and Game Code Section 1600 ~~Master Agreement for Timber Operations~~ that includes water drafting may provide proof of such coverage for compliance with ~~this paragraph~~ DFG **OPTION** 14 CCR 923.7(1).~~(2)~~.

Comment [e20]: 8/11 FPC decision to support revised DFG option and add proper reference to "Master Agreement for Timber Operations."

Deleted: master or

Deleted: long-term agreement

Deleted: and

(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;

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1 describing allowances for recharge time; using other dust palliatives;
2 and drafting water at alternative sites;

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

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

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

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

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

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

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

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

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

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

Comment [e21]: 9/11 Staff edit to correct spelling of existing language.
Deleted: waddles

8 (D) Water drafting trucks parked on streambeds, or
9 floodplains, ~~CGS Option, or within a WLPZ for a classified water body~~
10 ~~during water drafting~~⁴¹ shall use drip pans or other devices such as
11 ~~adsorbent~~ or absorbent blankets, sheet barriers or other materials as
12 needed to prevent soil and water contamination from motor oil or
13 hydraulic fluid leaks.

Comment [e22]: 8/11 FPC direction to staff to review language; tentative decision to incorporate changes as proposed by staff including strikeout of DFG language below. Staff recommended striking DFG language because as written, "drafting" could include filling trucks from off-stream impoundments. Staff correction to spelling of "adsorbent" rather than "absorbent."

Deleted: absorbent

14 ~~(D) DFG Option During water drafting, parked water trucks~~
15 ~~shall use drip pans or other devices such as adsorbent or absorbent~~
16 ~~blankets, sheet barriers or other materials as needed to prevent soil~~
17 ~~and water contamination from motor oil or hydraulic fluid leaks.~~

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

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

23 (ii) Diversion rate shall not exceed 10 percent of

24
25 ⁴¹ CGS comment: Do water trucks need to use drip pans or similar devises anywhere in the Plan area or only when they are near water?

1 the surface flow.

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

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

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

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

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

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

Comment [e23]: 8/11 FPC direction to staff to hold off on strikeout of DFG Option to allow NCRWQCB staff to analyze various regional WQ waiver requirements related to this option.

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

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

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

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

18 (A) by the LTO at least twice annually - once outside the
19 extended wet weather period, and at least once during the extended wet
20 weather period following the first storm event producing bankfull
21 stage and prior to completion of operations; Information produced for
22 other permitting requirements may be used to satisfy this subsection.

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

25 The inspection shall be started as soon as conditions permit access
to ensure that drainage structures and facilities are functioning to

1 hydrologically disconnect the road prism from waters. Inspection
2 results and follow up corrective measures shall be documented and
3 shall be provided to CAL FIRE.

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

11 (5) Decommissioned roads shall be inspected following the first
12 storm event producing bankfull stage after decommissioning and again
13 prior to filing the completion report. The purpose of the inspection
14 will be to verify the effectiveness of treatments in preventing
15 sediment discharges to waters and to ensure treatments are functioning
16 to restore natural drainage and hillslope stability. If treatments
17 are found to be ineffective prior to the end of the prescribed
18 maintenance period, further treatments shall be applied if the volume
19 of sediment prevented from entering a channel by additional treatments
20 is greater than that incurred by re-entering the site.

21
22 Amend § 923.8[943.8, 963.8]. Abandonment and Deactivation of Logging
23 Roads and Landings.

24 All logging roads and landings that are proposed to be removed from
25 the permanent road network, including historic roads and landings,
shall be abandoned. All temporary logging roads and landings that are

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1 to remain a part of the permanent road network shall be deactivated
2 prior to the winter period or upon completion of timber operations,
3 whichever comes first. Other logging roads and landings proposed to
4 be deactivated shall comply with the standards specified in this
5 section. Where abandonment or deactivation is required or proposed,
6 specific measures used to apply the following general requirements
7 shall be described in the plan:

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

11 (b) Soil exposed by abandonment or deactivation operations on cuts,
12 fills, and sidecast shall be stabilized as needed during and upon
13 completion of abandonment or deactivation operations to minimize soil
14 erosion and sediment transport and to prevent significant sediment
15 discharge.

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

18 (d) Fills or sidecast shall be pulled or shaped where site conditions
19 indicate that there is a reasonable potential for perched materials to
20 enter a watercourse or lake and result in a significant sediment
21 discharge.

22 (e) Logging road watercourse crossings, other drainage structures,
23 and associated fills shall be removed and stabilized in accordance
24 with 14 CCR § 923.17 [943.17, 963.17] subsections (a)-(c). Where it is
25 not feasible to remove drainage structures and associated fills, the
plan shall identify how the potential for soil erosion and sediment

Comment [e24]: 8/11 FPC decision to support revised language.

Deleted: and maintenance-free drainage

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1 transport will be minimized and how significant sediment discharge
2 will be prevented.

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

8
9 **Amend § 923.9 [943.9, 963.9]. Licensed Timber Operator Responsibility**
10 **for Logging Roads and Landings.**

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

16
17 **Adopt § 923.10 [943.10, 963.10]. Planning for Logging Road Watercourse**
18 **Crossings.**

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

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

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

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

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

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

7 ~~(f)~~⁴² ~~As part of the field examination of DFG Option classified~~
8 ~~watercourses and lakes, the RPF or supervised designee shall evaluate~~
9 ~~areas at and near existing and constructed or reconstructed logging~~
10 ~~road watercourse crossings for sensitive conditions, including, but~~
11 ~~not limited to, past diversion, overtopping, plugging, significant~~
12 ~~inlet or outlet erosion, soil piping, fill slope erosion and~~
13 ~~significant mechanical damage or wear.~~

14 ~~(1) The RPF shall consider these conditions, and those measures~~
15 ~~needed to maintain, and restore to the extent feasible, the functions~~
16 ~~set forth in 14 CCR § 916.4(b) [936.4(b), 956.4(b)], when planning~~
17 ~~logging road watercourse crossings.~~

18 ~~(2) The plan shall identify such conditions, including where~~
19 ~~they may interact with proposed timber operations, that individually~~
20 ~~or cumulatively, significantly and adversely affect the beneficial~~
21 ~~uses of water.~~

22 ~~(3) The RPF shall describe in the plan feasible protection~~
23 ~~measures for identified sensitive conditions that consider the~~
24 _____

25 ⁴² Staff Note: Conform this section (f) (1- 4) should be assessed for consistency with FPC decision on language used in 923.1 (d). the following CGS option may address this need for consistency with its proposed deletion of subsection (f) and adding simplified reference text citing 923.1 (d)

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1 ~~watercourse classification and the location and planned use of logging~~
2 ~~road watercourse crossings.~~

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

5 (f) The planning and use of logging road watercourse crossings shall
6 include the evaluation and documentation of sensitive conditions and
7 significant existing and potential erosion sites consistent with 14CCR

8 § 923.1(d)

9 ~~(f) DFC OPTION The RPF or supervised designee shall evaluate logging~~
10 ~~road and landing surface and drainage conditions for all road~~
11 ~~segments, drainage structures and facilities within the harvest area~~
12 ~~and all other logging roads that will be used for timber operations~~
13 ~~between the harvest area and the first public road. Field inventory~~
14 ~~information shall be obtained by an RPF or supervised designee while~~
15 ~~traversing the road segments.~~

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

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

25 ~~(3) Bridges (including associated fill, rip rap, and abutments)~~
~~and bridge approaches showing evidence of failure potential or~~

1 ~~substantial sediment delivery to Class I, II, or III watercourses and~~
2 ~~lakes shall be repaired, replaced, or removed.~~

3
4 (g) The RPF shall disclose in the plan how diversion of stream
5 overflow at logging road watercourse crossings will be prevented.

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

13
14 **Adopt § 923.11, 943.11, 953.11 Logging Road Watercourse Crossing**

15 **Design and Implementation**

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

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

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

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

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

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

9 (f) All necessary protective structures associated with logging
10 road watercourse crossings shall be adequately sized to transmit
11 runoff, minimize erosion of crossing fills, and prevent significant
12 sediment discharge.

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

15 (h) Rock used for DFG Option construction or stabilization of
16 ford crossings shall be adequately sized to resist mobilization, with
17 the range of required rock dimensions described in the plan.

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

24 (j) All new permanent constructed and reconstructed logging road
25 watercourse crossing culverts installed within Class I watercourses,
which meet the criteria for Class I waters where fish are always or

Comment [e25]: 9/11 Staff proposed editorial revision for clarity.

Deleted: to

Deleted: s and stabilize the outlet of fords

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1 seasonally present or where fish habitat is restorable, shall include
2 the analysis and specifications that document conformance with 14 CCR
3 § 923.10 [943.10, 963.10]subsection (h).

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

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

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

19 (2) Clear and enforceable specifications describing how these
20 crossings are to be modified, used, and treated to minimize risks,
21 giving special attention to allowing fish to pass both upstream and
22 downstream during all life stages and in conformance with the
23 standards of subsection (j) above and 14 CCR § 923.10[943.10,
24 963.10]subsection (h).

25 (3) Clear and enforceable specifications for construction and
operation of any new crossing(s) of a Class I watercourse to prevent

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1 direct harm, habitat degradation, water velocity increase, hindrance
2 of fish passage, or other potential impairment of beneficial uses of
3 water.

4 (m) RRTF Option 2 In watersheds with listed anadromous salmonids, in
5 addition to the requirements of 14 CCR § 923.11 [943.11,
6 963.11]subsection (k), the method of analysis and the design for
7 crossing protection shall be included in the plan.)

8
9 Adopt § 923.12[943.12, 963.12]. Logging Road Watercourse Crossing
10 Mapping and Identification.

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

13 (a) For logging road watercourse crossing-related mapping
14 requirements refer to 14 CCR §§ 1034(x)(6)(A)-(C), 1090.5(w)(7),
15 1090.7(n)(7), and 1092.09(1)(7)(A)-(C).

16 (b)For logging road watercourse crossing-related disclosure and
17 description requirements refer to 14 CCR §§ 1034(ii)(1)-(2) and (4),
18 1034(kk)(4)(A), 1034(ll) and 1034(mm).

19 (c) The location of all logging road watercourse crossings to be
20 constructed or reconstructed shall be flagged or otherwise identified
21 on the ground ~~RRTF Option 1: before submission of a plan or~~
22 substantial deviation RRTF Option 2: prior to the pre-harvest
23 inspection, if necessary, or prior to logging road watercourse
24 crossing construction or reconstruction. Exceptions may be explained
25 and justified in the plan and agreed to by the Director if flagging is
unnecessary as a substantial aid to examining possible significant

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1 adverse effects of the crossing location on the factors listed under
2 14 CCR § 923 [943), 963]subsection (b).

3
4 adopt § 923.13 [943.13, 963.13]. Logging Road Watercourse Crossing
5 Construction and Reconstruction.

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

8 (a) Where applicable, logging road watercourse crossing construction
9 and reconstruction shall comply with the DFG Option design of
10 conditions in required DFG 1602 agreements.

Comment [e26]: 8/11 FPC concurrence with DFG option as revised.

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

Deleted: design of required DF&G 1600 agreements.¶

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

Comment [e27]: 8/11 FPC concurrence with DFG option as written.

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

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

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

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

Comment [e28]: 8/11 FPC concurrence with DFG option as written.

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

20 (i) Logging road watercourse crossings with sensitive conditions
21 identified under 14 CCR § 923.10[943.10, 963.10]subsection (f) shall
22 be upgraded to address these conditions, replaced in accordance with
23 14 CCR § 923.11 [943.11, 963.11] and this section, or removed in
24 accordance with 14 CCR § 923.17 [943.17, 963.17].

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1 (j) Logging road watercourse crossings shall not be constructed or
2 reconstructed under saturated soil conditions or when such activities
3 could result in significant sediment discharge.

4 (k) Where conditions are encountered during logging road watercourse
5 crossing construction or reconstruction that differ from what was
6 anticipated during the preparation and review of the plan and that
7 will result in a significant adverse impact on the environment or to
8 public safety, the LTO shall notify the RPF or plan submitter of these
9 unanticipated conditions in accordance with 14 CCR § 1035.3. If
10 necessary, the responsible RPF or plan submitter shall submit to the
11 Director a proposed deviation to the plan describing the unanticipated
12 conditions and proposing appropriate actions.

13 (l) Logging road watercourse crossings shall be installed no later
14 than October 15, except where logging road construction or
15 reconstruction takes place from October 15 to November 15 or from
16 April 1 to May 1 where logging road watercourse crossings shall be
17 installed concurrent with the activity. Logging road watercourse
18 crossings shall not be installed during the winter period, except as
19 specified in an approved winter operating plan per 14 CCR § 914.7
20 [934.7, 954.7]subsection (a).

21 ~~(l) DFG OPTION Logging road watercourse crossings shall be installed~~
22 ~~no later than October 15, except where logging road construction or~~
23 ~~reconstruction takes place from October 15 to November 15 or from~~
24 ~~April 1 to May 1 where logging road watercourse crossings shall be~~
25 ~~installed concurrent with the activity.~~— Logging road watercourse
crossings shall not be installed during the winter period, except as

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1 specified in an approved winter operating plan per 14 CCR § 914.7
2 [934.7, 954.7]subsection (a).

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

8 (n) In watersheds with listed anadromous salmonids and in planning
9 watersheds immediately upstream of, and contiguous to, any watershed
10 with listed anadromous salmonids, during the extended wet weather
11 period no timber operations shall take place unless the approved plan
12 incorporates a complete winter period operating plan pursuant to 14 CCR
13 § 914.7 [934.7, 954.7], subsection (a). that specifically addresses,
14 where applicable, proposed logging road watercourse construction or
15 reconstruction. Where logging road watercourse crossing construction
16 or reconstruction is proposed an implementation schedule shall be
17 specified.

18
19 **Adopt § 923.14 [943.14, 963.14]. Logging Road Watercourse Crossing**
20 **Erosion Control.**

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

23 (1) Adequate surface drainage at logging road watercourse
24 crossings shall be provided through the use of surface geometry
25 configurations in combination with the installation of drainage
facilities, ditch drains, or other necessary protective structures DFG

1 OPTION to hydrologically disconnect the road from the crossing to the
2 extent feasible.

Comment [e29]: 8/11 FPC concurrence with DFG option as written.

3 (2) Drainage facilities and ditch drains shall be installed
4 adjacent to logging road watercourse crossings, as needed, to CGS
5 option hydrologically disconnect the logging road approach from the
6 crossing, to the extent feasible, to minimize soil erosion and
7 sediment transport and to prevent significant sediment discharge
8 during and upon completion of timber operations. See 14 CCR § 923.5
9 [943.5, 963.5], subsections (d)-(j)

Comment [e30]: 8/11 FPC concurrence with CGS option as written.

Comment [e31]: 9/11 FPC proposed edit for clarity to add "to the extent feasible."

10 (3) Drainage facilities ~~ditch drains~~⁴³ installed adjacent to
11 logging road watercourse crossings shall be located to avoid
12 discharging concentrated runoff onto fills, erodible soils, unstable
13 areas, and connected headwall swales.

Comment [e32]: 8/11 FPC preference for more inclusive "drainage facilities."

Deleted: or DFG OPTION drainage structures

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

16 (1) Bare soil on fills or sidecast associated with logging road
17 watercourse crossings that are created or exposed by timber operations
18 shall be stabilized to the extent necessary to minimize soil erosion
19 and sediment transport and to prevent significant sediment discharge.

20 Erosion control measures for the traveled surface of roads and
21 landing surfaces are specified in 14 CCR §§ 923.5 [943.5, 963.5] and
22 923.7 [943.7, 963.7]. Sites to be stabilized include, but are not
23 limited to, sidecast or fill greater than 20 feet in slope distance

24 _____
25 ⁴³ Wording for this section and parallel section 923.5 (b) should be consistent.

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1 from the outside edge of the road surface at the logging road
2 watercourse crossing.

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

8 (3) Soil stabilization treatments shall be in place upon
9 completion of operations for the year of use or prior to the extended
10 wet weather period, whichever comes first. An exception is that bare
11 areas created after the extended wet weather period shall be treated
12 within 10 days or as agreed to by the Director.

13 (4) In watersheds with listed anadromous salmonids and in
14 planning watersheds immediately upstream of, and contiguous to, any
15 watershed with listed anadromous salmonids, within the WLPZ and within
16 any ELZ or EEZ designated for watercourse or lake protection,
17 treatments to stabilize soils, minimize soil erosion, and prevent
18 significant sediment discharge, shall be described in the plan as
19 follows:

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

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

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

1 (iii) Any other area of disturbed soil that threatens
2 to cause significant sediment discharge.

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

7 (C) Where slash mulch is packed into the ground surface
8 through the use of a tractor or equivalent piece of heavy equipment
9 the minimum slash coverage shall be 75 percent.

10 (D)For areas disturbed outside the extended wet weather
11 period, treatment shall be completed prior to the start of any rain
12 that causes overland flow across or along the disturbed surface that
13 could result in significant sediment discharge.

14 (E) For areas disturbed during the extended wet weather
15 period, treatment shall be completed prior to any day for which a
16 chance of rain of 30 percent or greater is forecast by the National
17 Weather Service or within 10 days of disturbance, whichever is
18 earlier.

19
20 **Adopt § 923.15 [943.15, 963.15]. Logging Road Watercourse Crossing**
21 **Use.**

22 Logging road watercourse crossings shall be used in a manner that is
23 consistent with the design, construction, and maintenance of the
24 logging road along which they have been constructed (Refer to 14 CCR
25 §§ 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]).

Comment [e33]: 8/11 FPC revision consistent with revision of 923.5(p)(3)(C).

Deleted: , DFG OPTION and any treated

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

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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) 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) 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.

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

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

10
11 **Adopt § 923.17[943.17, 963.17] Logging Road Watercourse Crossing**

12 **Removal.**

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

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

21 (b) The excavated material and any resulting cut bank shall be no
22 greater than 65 percent (1.5:1, horizontal to vertical) from the
23 outside edge of the constructed channel to prevent slumping, to
24 minimize soil erosion and sediment transport, and to prevent
25 significant sediment discharge.

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

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

14 (e) Where it is not feasible to remove a logging road watercourse
15 crossing or its associated fill to the above standards, the plan shall
16 identify how soil erosion and sediment transport will be minimized and
17 how significant sediment discharge will be prevented.

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

23 (g) All logging road watercourse crossings proposed for removal shall
24 be removed upon completion of use, prior to the winter period or as
25 specified in the applicable DFG 1600 agreement, whichever is earlier,
or as otherwise specified in the plan.

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

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

7
8 Amend § 1034. Contents of Plan.

9 ~~*****~~(x) The information in subsections (1)-(4)(A), (5)(A)-(5)(K),
10 if applicable, (6)(A)-(B), and (7)-(16) shall be clearly shown on a
11 map that is based upon a U. S. Geological Survey topographic
12 quadrangle map, or equivalent, published at a scale of 1:24,000 or
13 larger. ~~On titled USGS (if available) or equivalent topographic maps of~~
14 ~~a scale not less than 2" to the mile, the information in subsections~~
15 ~~(1-4), (8), (9), and (11-13) shall be clearly shown. The information~~
16 in subsections (4)(B), (5)(A)-(5)(L), if applicable, and (6)(C) shall
17 be clearly shown on a topographic map at a scale of 1/2 inch equals 1
18 mile (1:126,720) or larger. Additional maps, which may be topographic
19 or planimetric, may be used to provide the information required in the
20 other subsections, to ~~ex~~ show specific details, and to improve map
21 clarity. ~~The appurtenant roads referenced in subsection (4) may be~~
22 ~~shown on a map which may be planimetric with a scale as small as one-~~
23 ~~half inch equals one mile. Color coding shall not be used. A legend~~
24 shall be included indicating the meaning of the symbols used to depict
25 operational features on maps. See the district rules for the
appropriate minimum mapping acreages.

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1 (1)-(3) [No change]

2 (4) ~~Location of public roads and those private roads to be used~~
3 ~~for timber operations within the plan area, and private roads~~
4 ~~appurtenant to the timber operations where such roads are under the~~
5 ~~ownership or control of the timber owner, timberland owner, timber~~
6 ~~operator, or submitter of the plan, and classification of all proposed~~
7 ~~and existing logging roads as permanent, seasonal, or temporary roads.~~

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

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

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

19 This shall include:

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

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

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

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

8 (A) Location of logging road grades greater than 15
9 percent for over 200 continuous feet or logging road grades exceeding
10 20 percent.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

25 (C) Logging road watercourse crossings that are not within
the harvest area but are under the ownership or control of the owner

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1 of the timberland where timber is proposed for harvest and are between
2 the harvest area and the first public road to be used for log hauling
3 that are:

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

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

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

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

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

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

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

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

21 (10) Location of known unstable areas or slides.

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

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1 (12) Location of boundaries of timber-site classes needed for
2 determination of stocking standards to be applied, down to at least a
3 20-acre minimum or as specified in the district rules.

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

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

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

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

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

16 (aa)- [No change]

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

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

23 (dd)-(ee) [No change]

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

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

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

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

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

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

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

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

24 ~~(1) For those with identified sensitive conditions per 14 CCR §~~
25 ~~923.1(d) [943.1(d), 963.1(d)] and 923.10(f) [943.10(f), 963.10(f)]:~~

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

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

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

10 ~~(2) Soil stabilization measures, including timing of~~
11 ~~installation. (Refer to 14 CCR § 923.5(1) [943.5(1), 963.5(1)])~~

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

15 ~~(4) Describe any proposed operations to remove how logging road~~
16 ~~watercourse crossings, including temporary crossings and those along~~
17 ~~abandoned or deactivated logging roads, are to be removed. (Refer to~~
18 ~~14 CCR § 923.17 [943.17, 963.17]).~~

19 ~~(5) In watersheds with listed anadromous salmonids and in~~
20 ~~planning watersheds immediately upstream of, and contiguous to, any~~
21 ~~watershed with listed anadromous salmonids.~~

22 ~~(A) Specific erosion control measures for all permanent~~
23 ~~and seasonal logging roads with a grade of 15 percent or greater that~~
24 ~~extend 500 continuous feet or more. (Refer to 14 CCR § 923.5(p)(2)~~
25 ~~[943.5(p)(2), 963.5(p)(2)]).~~

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

4 ~~(6) In watersheds with listed anadromous salmonids, water~~
5 ~~drafting site conditions and proposed water drafting activity. (Refer~~
6 ~~to 14 CCR § 923.7(1)(2) [923.7(1)(2), 923.7(1)(2)].)~~

7 [Note:§1034(ii)(1-6) struck as part of FPC non-concurrence with
8 §1034(hh) Option 1, refer to §923.3(b) Option 2.

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

11 ~~(1) Approximate lineal distance of individual segments of logging~~
12 ~~road construction and reconstruction.~~

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

15 ~~(2) Potential public safety concerns. (Refer to 14 CCR §~~
16 ~~923.10(e) [943.10(e), 963.10(e)].)~~

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

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

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

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

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

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

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

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

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

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

14 ~~(13) Logging roads and landings across slopes greater than 50~~
15 ~~percent for 100 lineal feet or more within 100 feet of the boundary of~~
16 ~~a WLPZ that drains toward the zoned watercourse or lake, including~~
17 ~~specific construction techniques or measures. (Refer to 14 CCR §~~
18 ~~923.4(m) [943.4(m), 963.4(m)].)~~

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

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

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

3 ~~(17) Any other areas where non standard practices on logging~~
4 ~~roads or landings are proposed.~~ [Note: §1034(jj)(1-17) struck as part of
5 FPC non-concurrence with §1034(hh) Option 1, refer to §923.3(b) Option
6 2.

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

11 ~~(1) Erosion sites on logging roads and landings that will be~~
12 ~~treated, including proposed treatment(s). (Refer to 14 CCR § 923.2(f)~~
13 ~~[943.2(f), 963.2(f)]).~~

14 ~~(2) Identification and description of specific provisions for~~
15 ~~all proposed logging road construction on slopes greater than 50~~
16 ~~percent. (Refer to 14 CCR § 923.4(s)(1)(A) [943.4(s)(1)(A),~~
17 ~~963.4(s)(1)(A)]).~~

18 ~~(3) Where logging road or landing construction or~~
19 ~~reconstruction is proposed, the location of, and specifications for,~~
20 ~~logging road and landing abandonment or other mitigation measures to~~
21 ~~minimize the adverse effects of long term site occupancy of the road~~
22 ~~system within the watershed. (Refer to 14 CCR § 923.1(f) [943.1(f),~~
23 ~~963.1(f)]).~~

24 ~~(3) Where logging road or landing construction or~~
25 ~~reconstruction is proposed, the plan shall identify:~~

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

3 ~~(B) What, if any, offsetting mitigation measures,~~
4 ~~including but not limited to, abandonment of logging roads and~~
5 ~~landings, are needed to minimize potential adverse impacts to~~
6 ~~watersheds from the road system. (Refer to 14 CCR § 923.1(f)~~
7 ~~[943.1(f), 963.1(f)].)~~

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

10 ~~(A) Address, where applicable, proposed logging road or~~
11 ~~landing construction, reconstruction and use. (Refer to 14 CCR §§~~
12 ~~923.4(s)(2) [943.4(s)(2), 963.4(s)(2)] and 923.6(j)(5) [943.4(j)(5),~~
13 ~~963.4(j)(5)].)~~

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

17 [Note:§1034(kk)(1-3, 4(A-B)) struck as part of FPC non-concurrence
18 with §1034(hh) Option 1, refer to §923.3(b) Option 2.

19 ~~(11)(hh) In watersheds with listed anadromous salmonids, the~~
20 ~~following shall apply:~~

21 ~~(1) Disclose and describe all existing permanent logging road~~
22 ~~watercourse crossings. (Refer to 14 CCR § 14 CCR § 923.11(1)(1)~~
23 ~~[943.11(1)(1), 963.11(1)(1)].)~~

24 ~~(2) In addition to the description of all existing permanent~~
25 ~~logging road watercourse crossings required by subsection (kk)(3), for~~
~~Class I watercourses, where fish are always or seasonally present or~~

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1 where fish habitat is restorable, any plan involving timber operations
2 within the WLPZ shall contain the following information:

3 (A) Clear and enforceable specifications describing how
4 these crossings are to be modified, used, and treated to minimize
5 risks, giving special attention to allowing fish to pass both upstream
6 and downstream during all life stages and in conformance with the
7 standards of subsection 923.11(j) [943.11(j), 963.11(j)] and 14 CCR §
8 923.10(h) [943.10(h), 963.10(h)].

9 (B) Clear and enforceable specifications for construction
10 and operation of any new crossing(s) of a Class I watercourse to
11 prevent direct harm, habitat degradation, water velocity increase,
12 hindrance of fish passage, or other potential impairment of beneficial
13 uses of water. (Refer to 14 CCR § 923.11(1)(2)-(3) [943.11(1)(2)-(3),
14 963.11(1)(2)-(3)].)

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

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

19 ~~(2) Option 1: Disclose and describe all permanent and~~
20 ~~temporary logging road watercourse crossings requiring construction or~~
21 ~~reconstruction along non-public roads, except temporary logging road~~
22 ~~watercourse crossings of Class III watercourses that are dry at the~~
23 ~~time of use, that are not within the harvest area nor under the~~
24 ~~ownership or control of the timberland owner where timber is proposed~~
25 ~~for harvest. (Option 2: Do not adopt the contents of subsection~~

1 (mm)(2) proposed under Option 1 and begin re-numbering subsection

2 (mm)(3) as (mm)(2), (mm)(4) as (mm)(3), etc.)

3 ~~(3)~~(2) Disclose the potential public safety impacts where
4 crossing construction or reconstruction may affect public safety.
5 (Refer to 14 CCR § 923.10(e) [943.10(e), 963.10(e)]).

6 ~~(4)~~(3) Disclose how diversions at logging road watercourse
7 crossings will be avoided, including proposed method(s). (Refer to 14
8 CCR §§ 923.10(g) [943.10(g), 963.10(g)] and 923.11(g) [943.11(g),
9 963.11(g)].

10 ~~(5)~~ (4) Include the analyses and specifications that
11 demonstrate all permanent constructed and reconstructed logging road
12 watercourse crossing structures installed within Class I watercourses,
13 where fish are always or seasonally present or where fish habitat is
14 restorable, will be designed to allow for upstream and downstream
15 passage of fish or listed aquatic species during any life stage and
16 for the natural movement of bedload. (Refer to 14 CCR § 923.11(i)-(j)
17 [943.11(i)-(j), 963.11(i)-(j)].)

18 ~~(6)~~ (5) Specify the minimum diameter of the culvert and the
19 method(s) used to determine the culvert diameter where new culverts
20 are proposed for permanent installation at a logging road watercourse
21 crossing. (Refer to 14 CCR § 923.11(e) [943.11(e), 963.11(e)].)

22 ~~(7)~~ (6) State the range of required rock dimensions for rock
23 used in logging road watercourse crossings utilizing fords. (Refer to
24 14 CCR § 923.11(h) [943.11(h), 963.11(h)].)

25 ~~(8)~~ (7) Identify protection measures needed to reduce sediment
delivery where evidence of substantial soil erosion and significant

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1 sediment discharge is present at a logging road watercourse crossing
2 used for timber operations. (Refer to 14 CCR § 923.16(d) [943.16(d),
3 963.16(d)].)

4 ~~(9)~~ (8) Identify how soil erosion and sediment transport will be
5 minimized and how significant sediment discharge will be prevented
6 where it is not feasible to remove a logging road watercourse crossing
7 or its associated fill to the standards contained in 14 CCR § 923.17
8 [943.17, 963.17]. (Refer to 14 CCR §§ 923.8(e) [943.8(e), 963.8(e)]
9 and 923.17(e) [943.17(e), 963.17(e)].)

10 ~~(10)~~ (9) Disclose and describe site conditions, and, to the
11 extent feasible, specify measures to be taken to address potential
12 sediment mobilization where a significant volume of sediment is stored
13 upstream from a logging road watercourse crossing that is proposed to
14 be removed. (Refer to 14 CCR §§ 923.13(g) [943.13(g), 963.13(g)] and
15 923.17(f) [943.17(f), 963.17(f)].)

16 ~~(11)~~ (10) In watersheds with listed anadromous salmonids, **Option**
17 1 state how existing permanent culverts used for logging road
18 watercourse crossings on Class I watercourses, where fish are always
19 or seasonally present or where fish habitat is restorable, shall be
20 brought up to the standards of 14 CCR § 923.11(c) [943.11(c),
21 963.11(c)].

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

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1 **(B)** (This only applies if 14 CCR § 923.11(k) [943.11(k),
2 963.11(k)], Option 1 is adopted.) In addition to the requirements of
3 14 CCR § 923.11(k) [943.11(k), 963.11(k)], include the method of
4 analysis and the design for logging road watercourse crossing
5 protection. (Refer to 14 CCR § 14 CCR § 923.11(k) [943.11(k),
6 963.11(k)].)]

7
8 **Amend 1051.1. Contents of Modified THP**

9 A plan submitted under ~~section~~ 14 CCR § 1051 above shall contain all
10 the provisions of 14 CCR § 1034 except the following: (o), (x)(6),
11 (x)(7), (z), (cc), (dd), (ee), (ff), and (mm), and the RPF shall:
12

13 **Amend 1090.5 Contents of NTMP**

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

21 **(1)-(3) [No change]**

22 **(4)** Location of public roads within the ~~plan~~ harvest area, and
23 private roads appurtenant to the timber operations where such roads
24 are under the ownership or control of the timberland owner and are
25 contiguous with the ~~plan~~ harvest area, and classification of all

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1 proposed and existing logging roads as permanent, seasonal, or
2 temporary roads.

3 (5)-14) [No change]

4 (x)-(ff) [No change]

5 ~~(gg) Where logging roads, logging road watercourse crossings, and~~
6 ~~associated landings in the logging area will be abandoned or~~
7 ~~deactivated, the methods for abandonment or deactivation shall be~~
8 ~~described.~~ [Note:§1090.5(gg) struck as part of FPC non-concurrence
9 with §1034(hh) Option 1, refer to §923.3(b) Option 2.

10 ~~(hh)(gg)~~ On a map complying with ~~subsection 14 CCR § 1090.6(x)~~
11 1090.5(w), the locations and classifications of logging roads, logging
12 road watercourse crossings, and landings to be abandoned or
13 deactivated shall be shown.

14 ~~(ii) [No change]~~ [Note: remaining lettering/numbering under §1090.5,
15 beginning with item (hh), will require revision.]

16
17 **Amend 1090.7 Notice of Timber Operations Content**

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

25 (1)-(3) [No change]

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

6 (5)-(11) [No change]

7 Amend 1092.09 PTHP Contents

8 (a) - (K) No change

9 ~~(1) On a titled USGS quadrangle or equivalent topographic map of a~~
10 ~~scale not less than 2" to the mile map that is based upon a U. S.~~
11 ~~Geological Survey topographic quadrangle map, or equivalent, published~~
12 ~~at a scale of 1:24,000 or larger, the information in subsections (1-5)~~
13 ~~(1)-(5)(A), (6)(A)-(6)(K), if applicable, (7)(A)-(B), and (7-11) shall~~
14 ~~be clearly shown. On a topographic map at a scale of 1/2 inch equals~~
15 ~~1 mile (1:126,720) or larger, the information in subsections (5)(B),~~
16 ~~(6)(A)-(6)(K), if applicable, and (7)(C) shall be clearly shown.~~

17 Additional maps, which may be topographic or planimetric, may be used
18 to provide the information required in other subsections or show
19 specific details, and to improve map clarity. ~~The appurtenant roads~~
20 ~~referenced in subsection (5) may be shown on a map which may be~~
21 ~~planimetric with a scale as small as one half inch equals one mile.~~
22 Color coding shall not be used. A legend shall be included indicating
23 the meaning of the symbols used to depict operational features on
24 maps. See the district rules for the appropriate minimum mapping
25 acreage.

(1)-(4) [No change]

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1 (5) ~~Location of public roads within the PTHP, and private roads~~
2 ~~appurtenant to the timber operations where such roads are under the~~
3 ~~ownership or control of the timber owner, timberland owner or timber~~
4 ~~operator, and classification of all proposed and existing logging~~
5 ~~roads as permanent, seasonal, or temporary roads. The following~~
6 logging road- and landing-related features shall be shown on a map of
7 the appropriate type and scale as described in subsection (1) above:

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

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

16 This shall include:

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

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

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

24 (6) The following shall be mapped at the appropriate scale
25 required under subsection (1), whichever is applicable, for all

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1 constructed and reconstructed logging roads and landings, unless
2 otherwise noted:

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

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

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

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

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

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

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

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

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

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

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

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

9 ~~(7)(6) — Location of proposed and existing landings in the~~
10 ~~watercourse and lake protection zone, and landings outside the zone~~
11 ~~that are greater than 1/4 acre in size or whose construction involves~~
12 ~~substantial excavation.~~ The following logging road watercourse
13 crossing-related items shall be shown on a map of the appropriate type
14 and scale as described in subsection (l) above:

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

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

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

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

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

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

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

9 ~~(8) (7) Road failures on existing roads to be reconstructed.~~

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

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

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

18 (11) Location of known unstable areas or slides.

19 (12) Location of unique areas.

20
21 **Amend § 1093.2. Contents of Road Management Plan.**

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

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

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1 implemented in a plan, including:

2 (A) (A) A road construction, reconstruction and use
3 component to ensure that operations occur on a stable operating
4 surface, consistent with 14 CCR 923.6. ~~that does not produce sediment~~
5 ~~in quantities that may cause a visible increase in turbidity of~~
6 ~~downstream waters in receiving Class I, II, III or IV waters or would~~
7 ~~violate Water Quality Requirements.~~ This component shall include, at a
8 minimum, restrictions for wet weather operations, surfacing
9 objectives, and provisions for water drafting.*****

10
11 Amend § 1104.1. Conversion Exemptions.

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

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

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

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1 End as of 9/01/11

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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.