



September 27, 2013

Eric Huff
Regulations Coordinator
Board of Forestry and Fire Protection
P.O. Box 944246
Sacramento, CA 94244-2460

Dear Mr. Huff:

ROAD RULES, 2013. NOTICE OF PROPOSED RULEMAKING (AUGUST 23, 2013)

The California Department of Fish and Wildlife (CDFW) has actively participated in Board of Forestry and Fire Protection (BOF) Forest Practice Committee (FPC) meetings and site visits during development of the subject rulemaking. CDFW provides the following comments and recommended changes.

Background

In December 2011, the BOF published a notice of proposed rulemaking for the amendment and adoption of regulations specific to road and crossing construction and maintenance on private timberlands titled "Road Rules, 2011." The intent of Road Rules, 2011 was to have a comprehensive set of road and crossing related regulations to prevent significant adverse impacts to the beneficial uses of water and to have an organized and logical set of rules in one location of the Rulebook. CDFW staff reviewed the rule package and provided comments in a letter dated March 30, 2012. In addition to CDFW's letter, the BOF received extensive comments to the Road Rules, 2011 from all California Department of Forestry and Fire Protection Review Team agencies and the public to the extent that the Board remanded the plead back to the BOF FPC to review and address the issues raised.

For the past year and a half, CDFW has actively participated in FPC meetings to provide assistance in addressing topics related to CDFW's public trustee responsibilities in context of the Road Rules, 2011. In addition, CDFW participated in the development of Technical Rule Addendum 5 (TRA 5), "Guidance on Hydrologic Disconnection, Road Drainage, Minimization of Diversion Potential, and High Risk Crossings."

Proposed Rules

A notice of proposed rulemaking for the revised regulations, titled "Road Rules, 2013," was published on August 23, 2013. The rule set contains several amendments, including, but not limited to road, crossing, and landing construction, reconstruction, and

maintenance. In addition, the rule set presents TRA 5 for adoption. TRA 5 provides guidance on hydrologic disconnection, locating road drainage facilities, and identifying and treating high risk areas of sediment sources.

CDFW Comments and Recommendations

Upon review of the August 23, 2013 draft of the Road Rules, 2013, CDFW provides the following comments and recommendations:

1. The name of the Department of Fish and Game (DFG) was changed to CDFW effective January 1, 2013. References to Fish and Game Code are still appropriate.
 - Change all references to DFG in the plead to CDFW.
2. **CCR 895.1 Definitions** (page 6, line 1). "Permanent Road Network" is defined to encompass temporary roads, while the definition of "Temporary Road" further includes abandoned roads. CCR 923.8 states that "All logging roads and landings that are proposed to be removed from the permanent road network shall be abandoned."
 - To clarify language that abandoned roads are not included by default in the permanent road network definition, add a sentence to the Temporary Road definition that states, "Abandoned roads are not part of the permanent road network."
3. **CCR 916.9(I)(1)** (page 15, line 8). This is the only location in Road Rules, 2013 and in the Forest Practice Rules where there is reference to "low antecedent soil wetness." Without a definition, there has been confusion during some pre-harvest inspections as to what this term means.
 - Replace the term "low antecedent soil wetness" with "dry rainless periods where soils are not saturated."
4. **CCR 923(b)(1)** (page 19, line 20) states that:
"...**(b)** Such planning, construction, reconstruction, use, maintenance, removal, abandonment, and deactivation shall occur in a manner that considers safety and avoids or substantially lessens significant adverse impacts to, among other things: **(1)** Fish and wildlife habitat and listed species of fish and wildlife."
Omission of plants is not consistent with the purview and mission of CDFW.
 - Change the intent language to include plants, such that it reads, "Fish, wildlife, and plant habitat and listed species of fish, wildlife, and plants."

Eric Huff, Regulations Coordinator
Board of Forestry and Fire Protection
September 27, 2013
Page 3

Thank you for the opportunity to participate in the Road Rules, 2013 rule making process in the Forest Practice Committee and during this public comment period. CDFW believes this rule set will benefit the Department's trustee fish, wildlife and plant resources by establishing best management practices for roads and crossings and mitigating significant sources of sediment to watercourses.

If you have any questions, please contact Stacy Stanish, Senior Environmental Scientist at our North Central Region (Region 2) at (916) 358-2382, or at stacy.stanish@wildlife.ca.gov.

Sincerely,



Sandra Morey
Deputy Director

cc: California Department of Fish and Wildlife

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Eric Huff, Regulations Coordinator
Board of Forestry and Fire Protection
September 27, 2013
Page 4

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Central Valley Regional Water Quality Control Board

3 October 2013

Board of Forestry and Fire Protection
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COMMENTS ON ROAD RULES, 2013

The Central Valley Regional Water Quality Control Board (Central Valley Water Board) appreciates the opportunity to comment on the "Road Rules, 2013" (Road Rules) rule package. The Road Rules package represents over a decade's worth of work to reorganize and improve road-related Forest Practice Rules¹. The Central Valley Water Board considers the Road Rules package a significant step forward in mitigating water quality impacts associated with timber harvest activities. The rule package accomplishes this task by incorporating the concept of hydrological connectivity into the package, by adopting a stringent performance-based standard for preventing water quality impacts from roads, and by requiring a systematic approach to evaluating and mitigating road-related water quality impacts. As such, Central Valley Water Board is strongly supportive of passing this rule package.

The following general comments are generally related to the "roll out" period for the rule package, assuming that the package is approved. General comments also focus on some of the uncertainties with the rule package, which we believe can be addressed through the Effectiveness Monitoring Committee after rule package approval. Several specific comments addressing rule language are also included at the end.

Enforcing a Performance-Based Rule Package

The Road Rules package is largely a performance-based rule package. The performance-based approach is appropriate given the inability to account for all conceivable situations with prescriptive rule standards. However, a reliance on performance-based standards means that sound professional judgment and technical understanding must be exercised when determining if the performance standards have been met or not. The Central Valley

¹ Ligon, F., A. Rich, G. Ryneanson, D. Thornburgh, and W. Trush. 1999. Report of the Scientific Review Panel on California Forest Practice Rules and Salmonid Habitat. Prepared for the Resources Agency of California and the National Marine Fisheries Service, California.

Water Board is willing to help CALFIRE with the interpretation and enforcement of performance-based standards related to water quality.

Education and Guidance

Performance-based standards can be left open to interpretation unless there is adequate education and guidance to registered professional foresters (RPF), licensed timber operators (LTO), and regulators on how to interpret these standards. In particular, the most notable of these proposed performance standards is related to the prevention of "significant sediment discharge." In the Road Rules:

"Significant Sediment Discharge" means soil erosion that is currently, or may be in the future, discharged to watercourses or lakes in quantities that violate Water Quality Requirements² or result in significant individual or cumulative adverse impacts to the beneficial uses of water. One indicator of a Significant Sediment Discharge is a visible increase in turbidity to receiving Class I, II, III, or IV waters.

This performance standard is stringent, and should be interpreted as such. For instance, the numeric water quality objective for turbidity in the Central Valley Water Board's Basin Plan is generally that a discharge will not increase receiving water turbidity by 20 percent. A single rill or rut on a road approach that delivers to a small to moderate sized watercourse can generally result in visible turbidity increases for short durations, and therefore can result in a "Significant Sediment Discharge". These kinds of cause-and-effect relationships must be understood by regulators and the regulated community in order to effectively implement the Road Rules package.

Technical Rule Addendum No. 5 is a good initial starting point for educating regulators and the regulated community on elements of the Road Rule package (i.e., hydrological disconnection; diversion potential). However, targeted education is necessary to ensure overall rule effectiveness. For instance, proposed section 923.9 [943.9, 963.9] (I) requires that "rock used to stabilize the outlets of crossing shall be adequately sized to resist mobilization..." To meet this performance standard, the practitioner is required to consider the driving hydraulic forces of streamflow as well as the properties of the resisting rock to adequately size the rock. Guidance in the form of a "rule tool" (i.e., rock sizing worksheet) could be created to help practitioners to meet the performance standard. Targeted education for LTOs is also an important component, as LTOs will often be responsible for meeting the performance standards.

² Water quality requirements means a water quality objective (narrative or numeric), prohibition, TMDL implementation plan, policy, or other requirement contained in a water quality control plan adopted by the Regional Board and approved by the State Water Board.

Uncertainties Regarding Rule Package

The biggest uncertainty regarding the Road Rules package is if there will be a difference in rule effectiveness between watersheds with listed anadromous salmonids (ASP) and watersheds without listed salmonids. This uncertainty exists because the Road Rules has more restrictive rule language for ASP watersheds than for non-ASP watersheds. Theoretically, performance for the two areas should be similar due to the overarching performance standard of preventing significant sediment discharge. However, over time one could determine if the Road Rules have regional differences in preventing water quality impacts and whether additional rule language is needed in the non-ASP areas to achieve the performance standard of preventing significant sediment discharge. The Central Valley Water Board considers these important questions to answer through future effectiveness monitoring through the newly created Effectiveness Monitoring Committee.

Specific Comments

1. The Central Valley Water Board supports revisions suggested by CALFIRE staff regarding the insertion of new rule language:

923.9 [943.9, 963.9] (c) Watercourse Crossings

Existing watercourse crossing drainage structures and associated necessary protective structures shall be maintained, repaired, and replaced as needed to minimize crossing blockage and to provide for adequate capacity. Properly functioning watercourse crossings on roads that existed before timber operations need not be removed, but must be constructed or maintained to prevent diversion of overflow down the road should the drainage structure become plugged.

This will ensure that culverts undersized for the 100-year flood flow will be assessed for diversion potential, and necessary mitigations will be put into place to avoid crossing diversion.

2. The Central Valley Water Board believes more explicit language for **923.9 [943.9, 963.9] (l)**³ to link the design of crossing protective structures (e.g. rock slope protection) to the 100-year flood flow is necessary. We suggest the following language:

Any necessary protective structures associated with logging road watercourse crossings such as wing walls, rock armored headwalls, and downspouts shall be adequately sized to transmit runoff for the 100-year flood flow, minimize erosion of crossing fills, and prevent significant sediment discharge. Rock used to stabilize the outlets of crossings shall be adequately sized to resist mobilization from the 100-year flood flow, with the range of required rock dimensions described in the plan.

³ This would be the new 923.9 [943.9, 963.9] (m) if the new rule language proposed in specific comment (1) is adopted.

3. Section 923.7 [943.7, 963.7] (l) (3) (iv) states that:

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

It is unlikely that the drafting operator will be able to measure velocity to the nearest $1/100^{\text{th}}$ ft s^{-1} . We suggest using one significant figure (i.e., 0.3 ft s^{-1}).

4. Section 923.9 [943.9, 963.9] (t) (2) states:

Bare soil on fills or sidecast associated with logging road watercourse crossings that are created or exposed by timber operations shall be stabilized to the extent necessary to minimize soil erosion and sediment transport and to prevent significant sediment discharge. Erosion control measures for the traveled surface of roads and landing surfaces are specified in 14 CCR §§ 923.5 [943.5, 963.5] and 923.7 [943.7, 963.7]. Sites to be stabilized include, but are not limited to, sidecast or fill exceeding 20 feet in slope distance from the outside edge of the road surface at the logging road watercourse crossing.

This section sends a contradictory message to RPF and LTOs, and will likely set up a LTO for a violation. Bare soil on steep, newly-placed fill or sidecast, situated directly over a watercourse (i.e., a watercourse crossing fill), presents an inherently high risk to water quality, and therefore represents a "Significant Sediment Discharge". We propose incorporating the standards included in 923.9 (t) (4) (i, ii, iii) into 923.9 [943.9, 963.9] (t) (2).

The Central Valley Water Board is strongly supportive of the "Road Rules, 2013" package. As mentioned previously, this rule package is the culmination of over a decade of work and numerous iterations. Passing this rule package sends a strong message that the Board of Forestry and Fire Protection is committed to upholding strong standards for water quality protection.

If you have any questions regarding these comments, please contact Drew Coe at (530) 224-2437, or dbrcoe@waterboards.ca.gov



Angela K. Wilson, P.G.
Senior Engineering Geologist

DBC:lmw

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Please accept the following comments towards the Road Rules, 2013 proposed rule package:

Proposed definition (895.1; Page 7) reads:

Seasonal Road means a logging road that is part of the permanent road network that is not designed for year-round use. These roads have a surface that is suitable for maintaining a stable operating surface during the **season of use**.

As it reads “season of use” is not recognized as a standard phrase or a recognized period of time, thus the intent does not seem clear. Should the word “season” be revised to read “period”, with the intent that regardless of the road classification, surface material or time of year, the road has to have a “stable operating surface” during operations.

Page 16: **916.9 (n)(1)(new C)** Any other area of disturbed soil that threatens to discharge sediment into waters **in amounts deleterious** to the quality and beneficial uses of water.

The use of a different standard other than “**Significant Sediment Discharge**” that is undefined adds confusion down the road (during plan review); Consider changing to read Any other area of disturbed soil that threatens to discharge sediment into waters in amounts that create a **Significant Sediment Discharge**. Also, the (C) reference no longer appears pertinent as there no longer appears to be an (A) or (B).

Page 67: **1034(x)(4)(C)** **Appurtenant roads** that provide access to rock pits and water drafting sites, and the location of water drafting sites.

By definition “Appurtenant roads” are those roads used for log hauling, which would not necessarily provide access to rock pits and water drafting sites (away from the “Harvest Area”). The definition of “**Logging road**” seems to fit better here as that definition includes “other forest products” (which rock and water could be construed) and is under the guidance of 1034(x)(4) above that narrows the mapping requirement to roads used for “timber operations” (of the proposed/approved project).

Definitions for Reference:

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

Logging Road means a road other than a public road used by trucks going to and from landings to transport logs and other forest products.

923.2(a)(4)(p28) NEW FPR “Design” Text reads: Be outsloped where feasible and drained with waterbreaks **or** rolling dips in conformance with other applicable Forest Practice Rules.

New Text requires new roads “designed” to be outsloped (where feasible) and then drained with waterbreaks, rolling dips or both. By definition, outsloping and rolling dips are design features that are a permanent part of the prism, where waterbreaks are installed post hauling operations. The intent here is more manageable (clear) if the “**or**” was either an “**and/or**” or just an “**and**”, for “literal interpretation” (and/or seems best). It is common to outslope and rolling dip a seasonal road, but also add a few waterbars on segments of grade that exceed 8%. The “or” makes it read as if you have to choose one or the other for the whole road. The Tech

Addendum #5 would also be a place to mention that both waterbars and rolling dips in combination along a road system is many times the best application to achieve long-term control of road surface runoff.

Thank you for the opportunity to comment,

Sincerely,

Mitchell A. Hunt
RPF #2353

Board of Forestry and Fire Protection
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Members of the Board of Forestry and Fire Protection:

This comment letter is submitted by the Northern California Council, Federation of Fly Fishers (NCCFFF). The NCCFFF is a recreational fly fishing organization with 43 clubs and over 5,000 members in Northern California and Nevada. Our concerns are related to timber harvest practices and the impact of logging roads on salmonid fisheries habitat in rivers and streams in California.

We have been working closely with the Forest Practice Committee in developing the Road Rules 2013 package. We appreciated the opportunity to work with Eric Huff and Pete Cafferata in the development of these regulations. In general, we feel the regulations are a significant improvement and if effectively implemented, will greatly reduce sediment pollution and improve salmonid habitat in those impaired watersheds in Northern California subject to commercial timber harvesting.

In past comment letters to the Board of Forestry and Fire Protection (BOF) we have emphasized that the BOF, as an agency with public trust responsibility for resource protection, should use the precautionary principle in regulating and enforcing sound and sustainable forestry practices. The Public Trust Doctrine and the Precautionary Principle are codified in the State Constitution have been upheld by courts in California for the last 100 years. (See California Case Law--National Audubon Society vs. Superior Court 33.) The Precautionary Principle is simple, it states that agencies like CAL FIRE and the California Department of Fish and Wildlife (DFW) have the responsibility to implement regulations that are conservative, have sufficient factors of safety, and can pass the "do no harm" test. In the Audubon decision, the California Supreme Court ruled that "the state is obligated to supervise the protection of public trust resources and act to prevent parties from using the trust (water and wildlife) in a harmful manner."

The key to making the proposed new road rules effective in protecting salmonids and their habitats will be: Can the BOF develop an approach that insures the improvements in the road regulations are performed in a timely manner and that those performing the work (registered professional foresters (RPFs) or their authorized designees) are trained to perform the work in a standardized manner that is outlined in the technical addendum No.5. We recommend training seminars be quickly developed using the services of Pacific Watershed Associates (or other qualified entity). This will insure that the best management practices are understood by those responsible for performing the work.

Next, the BOF needs to develop a simple system to track the completion of the work. What the NCCFFF recommends is the adoption of performance measures that are

simple, easy to understand and implement, and accurately measure progress. (See the attached Time Magazine article by Bill Gates, Founder and Chairman of Microsoft on the importance of establishing goals and performance measures.) Applying the concepts that Mr. Gates discusses to the various elements of the roads package is discussed below:

1. Road Rules 2013, 923.1 (G) page 24 of the plead published 8/23/13:

The Goal: The landowner and RPF are to identify existing sources and potential sources of sediment and the order of treatment to repair and eliminate these sources in a timely manner.

The performance measure: Percent of sources repaired or eliminated on a yearly basis. The measurement system: The RPF submits a map with the THP (or NTMP) application clearly showing existing and potential sediment sources. On a yearly basis, the RPF marks "Completed" on the noted sources and submits the updated map to CAL FIRE. CAL FIRE summarizes the results which show total number of sediment sources reported, the percent repaired or eliminated, sub grouped by THP and landowner. The reports are submitted to the BOF and the public so that progress can be monitored.

Another advantage of this approach would be to use the maps by CAL FIRE inspectors during their annual inspections of watercourse crossings during the prescribed maintenance periods (923.9 (U) page 63.

2. Class II-L Identification and Protection Amendments 8/23 916.9, (c) Page 6 of the plead published 8/23/13:

The performance measure for this regulation should provide the BOF with data that can resolve the major issues associated with the identification of Class II-L watercourses. The major issues associated with the current regulations are the overly complex office and field identification methods and the fact that DFW recommendations regarding the protection of aquatic resources have been frequently opposed by RPFs and not supported by CAL FIRE. Hopefully the performance measure shown below (number of DFW recommendations not accepted by CAL FIRE and made enforceable under the plan) will provide the data to the BOF to show whether or not this issue is being addressed by CAL FIRE and DFW.

The Goal: Implement a simplified system of Class II-L watercourse identification and a process for agreeing on additional protections for watercourses that are less than 5 feet wide or less than 100 acres in size but are impaired (temperature, sediment) due to adjacent unstable areas, high erosion hazard ratings, legacy channel degradation, adjacent clear cuts etc.

The performance measure: Total Class II watercourses in the THP as shown on the THP map, the number and percent of these Class II's that are identified by the RPF as Class II-L's, the percent of the Class II's identified by DFW as qualifying for Class II-L

protection and lastly, the number and percent where CAL FIRE does not concur and does not make the DFW recommendation(s) enforceable under the plan.

3. Additional comments from NCCFFF regarding the Road Rule 2013 package:

923.1 (G) Page 24: On slopes less than 30 percent there is no language in the plead limiting the distance of the road from a Class II-S watercourse. This implies that a road could be as close as 50 feet since the width of a Class II-S watercourse and lake protection zone (WLPZ) is 50 feet. (Note that the Pete Cafferata/Drew Coe report of 5/4/10, "State BOF--Forest Practice Committee Science Review for Road Rules Discussion", states that 50 feet may be insufficient and that 100 feet may be more appropriate. When this was discussed at the FPC meeting, the timber industry position was that the 100 foot requirement would force them to build new road when they were in the process of reconstructing an existing road. Recognizing that constructing a new road may do more harm than good, particularly if the reconstructed road is hydrologically disconnected from the watercourse, the 50 foot distance may be adequate. To deal with this issue, we request that the language in 923.1 be amended to include a statement to "explain and justify" the use or reconstruction of a road adjacent to a Class II-S WLPZ and insure that the reconstructed road segment is completely hydrologically disconnected from the watercourse.

923.9 (p) (2) Page 61: The plead states that the excavated material and any resulting cut bank shall be no greater than 65 percent (1.5:1), horizontal to vertical from the outside edge of the constructed channel to prevent slumping, minimize soil erosion and sediment transport and to prevent significant sediment discharge.

After consulting with Mark Moore, retired DFW Staff Environmental Scientist, we are informed that in his 12 years of working with Green Diamond Resource Company and smaller non-industrial timberland owners and observing numerous representative crossings pre and post removal, he frequently observed failures on pulled crossing slopes steeper than 2:1. He stated that DFW established and negotiated the Best Management Practice of 2:1 or flatter into the Green Diamond and the Humboldt Redwood Company Master Agreements for Timber Operations which are included in their Habitat Conservation Plans (HCP's). He informed us that over his career he observed hundreds of pulled crossings where the correct finished angle of repose needed to prevent slumping or significant sheet or significant gully erosion of sediment into Class I, II and III watercourses is 2:1 or flatter, or the original ground contour. Importantly this standard (2:1 or flatter), was been routinely included in DFW1602 agreements on the north coast prior to completing the DFW Master Agreements for Timber Operations with Green Diamond and Humboldt Redwood Company. To Mark's recollection, there were no major objections regarding the 2:1 or flatter standard from timber operators. Based on this evidence, we recommend that the Road Rules 2013 language in 923.9 (p) (2), for at least the North Coast Region, be changed to "resulting cut bank slope shall be no greater than 50%".

Thank you for your consideration of our comments. Please contact me at (916) 487-3283 or MWLaing@aol.com if you require more information or wish to further discuss the material we have presented.

Respectfully submitted,



Michael W. Laing
Northern California Council
Federation of Fly Fishers
Dr. Mark Rockwell
NCCFFF

From: mwlaing <mwlaing@aol.com>

To: eric.huff <eric.huff@fire.ca.gov>

Subject: NCCFFF Comment Letter Summary of Time Article by Bill Gates

Date: Wed, Oct 2, 2013 10:52 am

Eric--This is a verbatim summary of Bill Gate's Time Magazine Article dated 9/30/2013 regarding the importance of Goals and Measures. Mr. Gates explains how setting goals that are tied to measures are crucial to the success of any organization and I have proposed this could apply to the BOF and the implementation of the Road Rule 2013 package. Please attach this memo to my comment letter that has been submitted separately.

Thanks,

Mike Laing

IN THE WAR ON DISEASE, MEASUREMENT MATTERS, BY BILL GATES FOUNDER AND CHAIRMAN OF MICROSOFT AND CO-CHAIR OF THE BILL AND MELINDA GATES FOUNDATION

"All good business leaders I know are maniacal about measuring things. They know their sales data and customer satisfaction numbers, which divisions of their company are beating expectations and which are lagging behind. Some even analyze their calendars to make sure they spending time on the right priorities.(I admit I'm one of these). Measurement is a big part of mobilizing for impact. You set a goal, and then you use data to make sure you are making progress toward it. This is crucial in business and just as important in the fight against poverty and disease."

Gates goes on to discuss the "importance of measurement and evaluation when the U. N. adopted the Millennium Goals (MDGs), a set of eight targets for improving health, education and other areas. Before the MDGs there was no global consensus on the problems of human development. Rich countries gave aid to poor ones, but without shared goals and a way to measure progress they often worked at odds with one another. The MDGs helped enormously, governments and donors set targets for measuring progress. They could see which countries did well and which fell behind. This made it possible to target funding and effort where they could do the most good.The results were phenomenal. For example, deaths among children under age 5 have dropped more than 40% since 1990, the baseline year for the MDGs. That is the biggest reductions in child mortality ever recorded. If this is not mobilizing for impact what is?"

Gates concludes his article by noting that UN will adopt new goals in 2015. He concludes by saying "What ever the new goals are I hope they will include clear, measurable targets. We must make time for gathering data and crunching numbers. In fact, when it comes to saving lives, we can't afford not to."

Please accept the following as Public Comment towards the proposed “Road Rules 2013 “ package currently being considered by the Board:

The proposed definition for **Significant Sediment Discharge** (895.1; Page 8) reads;

Significant Sediment Discharge means soil erosion that is currently, or may be in the future, discharged to watercourses or lakes in quantities that violate Water Quality Requirements or result in significant individual or cumulative adverse impacts to the beneficial uses of water. **One indicator of a Significant Sediment Discharge is a visible increase in turbidity to receiving Class I, II, III, or IV waters.**

I understand the need to define this term in the FPRs; as reducing, avoiding and preventing a “significant sediment discharge” is the focus of nearly all of the intent associated with FPR Road requirements and mitigations. As a member of the regulated public, harvest plan preparation and implementation becomes very difficult when there are different definitions or standards between the Resource Agencies that oversee timber harvest operations. The primary definition seems to avoid this conflict as the language generically points to “Water Quality Requirements”. The conflict occurs in the last sentence as the definition provides an “Indicator”, apparently in an attempt to explain the intent of the term. Providing one indicator for such an important term is problematic at face value as during the review process or more importantly, during an inspection on a day with heavy rain and overland flow, it will become the primary criteria to give a worksite a pass or fail, or worse, a violation to the plan submitter. The “Indicator” used to help define this term is a poor choice as “a visible increase in turbidity to receiving ... waters” explicitly reads as any visible increase. Simply put, minor levels of visible turbidity occur with many rainfall events that cause overland flow and at some point in the occurrence the “increase” can be observed. The other truth is that research shows that not all levels of turbidity create a “Significant Sediment Discharge”.

Please drop the “Indicator” sentence all together in the definition and vet out the intent in the Technical Addendum #5 (which really seems to be the most appropriate) or modify the Indicator to better frame a significant sediment discharge.

A suggested modification to the “Indicator” portion of the definition is as follows: “.... One indicator of a Significant Sediment Discharge is a visible ~~increase in turbidity~~ sediment delivery to receiving Class I, II, III, or IV waters as a result of, but not limited too; active operations not associated with emergency watercourse repair work, an improperly functioning drainage structure or facility, or a legacy sediment source (such as perched road fill, an existing crossing site, landslide).

Additional Explanation:

The definition for Significant Sediment Discharge (**SSD**) currently leaves the plan submitter open for a violation on newly completed work that is well done by all standards (new culverts, abandoned crossings (either legacy or operational), newly rocked roads, etc.), as all new installations or any newly abandoned (rehabilitated) site will show an increase in visible turbidity (minor as it might be) during the first series of fall rain events that generate overland flow. The definition is good; the “Indicator” is not. This language does incorporate Public Comment made by CAL FIRE on 3-26-13, but “a visible increase” occurs at some level during an overland flow event that is preceded by a dry period regardless whether a road has been used for seasonal timber operations.

Several uses of this new term in the proposed rules read "... to prevent Significant Sediment Discharge..", which at face value is what we are trying to achieve, but any visible increase in turbidity to receiving waters, during rainfall events that cause overland flow is impossible to "prevent". Current practices, both operational and rehabilitative in nature, are doing a very good job at keeping the damaging sediment out of the watercourses, but "a visible increase in turbidity" can be so minor that it will clear up when rainfall stops, or even clear up after the rain lasts long enough for an initial rinse through a newly completed work site to occur. The "indicator" needs to be clear that "real" erosion or discharge is active and that degradation is occurring, not just turbidity that flushes through the system. The present indicator also does not address a "potential SSD" where delivery is imminent but not yet happening. Research on turbidity has shown that turbidity alone is not a reliable indicator of sediment problems in a watershed. The "Indicator" broadly covers turbidity levels so low that they could no way be construed as detrimental to the aquatic life of the related watercourse or habitat downstream (unless you are trying to enforce the definition of SSD as proposed). A true SSD will many times continue to discharge (and cause "a visible increase" in turbidity) after normal flows and clear water return, i.e. the turbidity "flush" is gone. Please either drop the "Indicator" portion of the definition and address intent of the term in the Technical Addendum #5 or revise the definition to be clear that we are managing real significance.

Overall the Roads Rule 2013 product is very good. Thank You for the opportunity to provide comment on this very important issue associated with the package.

Sincerely,

Mitch Hunt
RPF# 2353



DEPARTMENT OF FORESTRY AND FIRE PROTECTION

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October 7, 2013

Dr. J. Keith Gilliss
 California State Board of Forestry and Fire Protection
 P.O. Box 944246
 Sacramento, California 94244

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 BOARD OF FORESTRY AND FIRE PROTECTION

Dear Dr. Gilliss:

The California Department of Forestry and Fire Protection (CAL FIRE) has reviewed the proposal to amend, repeal, or adopt regulations contained under 14 CCR §§ 895.1, 914.7 [934.7, 954.7], 914.8 [934.8, 954.8], 915.1 [935.1, 955.1], 916.3 [936.3, 956.3], 916.4 [936.4, 956.4], 916.9 [936.9, 956.9], 918.3 [938.3, 958.3], 923 [943, 963], 923.1 [943.1, 963.1], 923.2 [943.2, 963.2], 923.3 [943.3, 963.3], 923.4 [943.4, 963.4], 923.5 [943.5, 963.5], 923.6 [943.6, 963.6], 923.7 [943.7, 963.7], 923.8 [943.8, 963.8], 923.9 [943.9, 963.9], 923.9.1 [943.9.1], 1034, 1051.1, 1090.5, 1090.7, 1092.09, 1093.2, 1104.1, and Technical Rule Addendum Number 5 of the California Forest Practice Rules presented in the 45-day notice for Road Rules, 2013, circulated August 23, 2013. This comment letter addresses the proposed changes presented in that public notice, which will be discussed at the public hearing scheduled for October 9, 2013.

This comprehensive rule package proposes to amend and repeal existing rule language pertaining to forest roads, as well as adopt a new Technical Rule Addendum for guidance to Registered Professional Foresters, agency staff, and the public. CAL FIRE strongly supports the 45-day rule package, but we do request that the Board consider adoption of the minor changes provided attached to this letter. CAL FIRE believes that the recommended changes provide for clarity and needed improvements involving road-related Forest Practice Rules. The Department looks forward to helping ensure successful implementation of the rule package by developing LTO, RPF, and agency training workshops.

Department staff have been involved in the Forest Practice Committee discussions and field meetings over several years that have led to the development of the current plead language. Overall, we find that the modified rule language will provide for improved protection of water quality and also improve the organization of all the road-related Forest Practice Rules.

Dr. J. Keith Gilles
October 7, 2013
Page 2

A limited number of typographical errors were found in the rule package and will be transmitted to Mr. Eric Huff, CAL FIRE Regulations Coordinator. A staff member will be available at the Board meeting to discuss any pertinent issues that may arise.

Sincerely,



WILLIAM E. SNYDER
Deputy Director
Resource Management

cc: Duane Shintaku, Assistant Deputy Director, Forest Practice
Dennis Hall, Staff Chief, Forest Practice
Pete Cafferata, Watershed Protection Program Manager

Attachment

Road Rules, 2013 Rule Proposal

California Department of Forestry and Fire Protection (CAL FIRE) Comments October 7, 2013

The following changes pertain to the 45-day public notice. Additional text is double underlined and deleted text is ~~double struck through~~.

Page 4, line 8: The following modification for the definition of deactivated road is proposed by the Department to provide greater clarity and to emphasize that erosion control measures on forest roads that are deactivated must be monitored and maintained over time.

895.1 Definitions

Deactivated Road means a logging road that is part of the permanent road network where measures have been implemented to prevent active use by logging trucks and standard production four-wheel drive highway vehicles, and where long-term erosion control measures and watercourse crossings will be monitored and maintained.

Page 8, line 20: The following modification of the definition of waterbreak is proposed to provide improved clarity and remove confusion regarding required spacing for rolling dips. 14 CCR § 923.5 [943.5, 963.5] (g) states that rolling dip spacing is to be based on the logging road gradient grade, cross-slope gradient, and soil erosion hazard rating. Waterbreak spacing is specified in 14 CCR § 923.5 [943.5, 963.5] (f). It should be made clear that rolling dips are not included in the spacing requirements of 14 CCR § 923.5 [943.5, 963.5] (f).

895.1 Definitions

Waterbreak means a ditch, dike, ~~or dip,~~ or a combination thereof, constructed diagonally across logging roads, tractor roads and firebreaks so that water flow is effectively diverted therefrom. Waterbreaks are synonymous with waterbars.

Page 43, line 24: The following new sentence will provide guidance to Registered Professional Foresters, agency staff, and the public regarding rolling dip spacing.

923.5 [943.5, 963.5] (g) Erosion Control for Logging Roads and Landings

Where outsloping and rolling dips are used to control surface runoff, the dip in the logging road grade shall be sufficient to capture runoff from the logging road surface. The steepness of cross-slope gradient in conjunction with the logging road or landing gradient and the estimated soil erosion hazard rating shall be used to determine the rolling dip spacing in order to minimize soil erosion and sediment transport and to prevent significant sediment discharge. Guidance on rolling dip spacing may be found in the Board's Technical Rule Addendum Number 5.

Page 44, line 3: The following new sentence will provide guidance to Registered Professional Foresters, agency staff, and the public regarding energy dissipators.

923.5 [943.5, 963.5] (h) Erosion Control for Logging Roads and Landings

Drainage facilities and structures shall discharge into vegetation, woody debris, or rock wherever possible. Where erosion-resistant material is not present, slash, rock, or other energy dissipating material shall be installed below the drainage facility or drainage structure outlet as necessary to minimize soil erosion and sediment transport and to prevent significant sediment discharge. Guidance on energy dissipators for drainage structures may be found in the Board's Technical Rule Addendum Number 5.

Page 44, line 6: Changing "will" to "shall" is required for rule language consistency and adequate enforcement. Adding "including timing of implementation" is required to ensure that required treatments will be implemented on the ground when they are necessary and appropriate. For example, where rocking of road approaches is specified in the plan, it must be stated that this will occur prior to log hauling, not after this activity has occurred.

923.5 [943.5, 963.5] (i) Erosion Control for Logging Roads and Landings

Where logging road and landing surfaces, road approaches, inside ditches and drainage structures cannot be hydrologically disconnected, and where there is existing or the potential for significant sediment discharge, necessary and feasible treatments to prevent the discharge shall ~~will~~ be described in the plan, including timing of implementation.

Page 49, line 5: The following changes are required to clarify that log hauling and use of other heavy equipment is limited on both private roads and landings and public roads and landings to those with a stable operating surface that can be maintained during the extended wet weather period. For example, we do not want to exclude this limitation for log hauling on federal coop roads during the extended wet weather period. Even though CAL FIRE does not regulate timber operations on federal coop roads, CAL FIRE must ensure that the cumulative watershed effects evaluation considers project related impacts even if those impacts are on federal land. This timing restriction provides greater assurance in this regard.

923.6 [943.6, 963.6] (c) Use of Logging Roads and Landings

During the extended wet weather period, ~~log hauling or other heavy equipment uses shall be limited to on logging roads and landings that exhibit~~ shall only occur if a stable operating surface can be maintained in conformance with (b) above. Routine use of logging roads and landings shall not occur when equipment cannot operate under its own power.

Page 60, line 2: The following change is suggested to provide clarity regarding when rock used to stabilize the outlets of crossings is required, and is consistent with the terminology being proposed for the revised version of the *Handbook for Forest and Ranch Roads*, currently under production by Pacific Watershed Associates.

923.9 [943.9, 963.9] (l) Watercourse Crossings

Any necessary protective structures associated with logging road watercourse crossings such as wing walls, rock armored headwalls, and downspouts shall be adequately sized to transmit runoff, minimize erosion of crossing fills, and prevent significant sediment discharge. Rock used to stabilize the outlets of crossings, including rock ford and rock armored fill crossings, shall be adequately sized to resist mobilization, with the range of required rock dimensions described in the plan.

Page 60, line 13: "During and upon completion of timber operations" is struck since removal of this clause improves CAL FIRE's ability to enforce this provision at all times during the life of a plan, including the prescribed erosion control maintenance period. Additionally, the reference to Technical Rule Addendum No. 5 is suggested to provide guidance to Registered Professional Foresters, agency staff, and the public regarding hydrologic disconnection.

923.9 [943.9, 963.9] (m) (2) Watercourse Crossings

Consistent with 14 CCR § 923.5(a)-(i) [943.5(a)-(i), 963.5(a)-(i)], drainage facilities and ditch drains shall be installed adjacent to logging road watercourse crossings, as needed, to hydrologically disconnect to the extent feasible the logging road approach from the crossing, to minimize soil erosion and sediment transport, and to prevent significant sediment discharge ~~during and upon completion of timber operations~~.

Guidance on hydrologic disconnection may be found in the Board's Technical Rule Addendum Number 5.

Page 60, line 25: The following change is suggested to provide guidance to Registered Professional Foresters, agency staff, and the public regarding reducing the potential of failure at high risk watercourse crossings.

923.9 [943.9, 963.9] (o) Watercourse Crossings

Where crossing fills over culverts are large, or where logging road watercourse crossing drainage structures and erosion control features historically have a high failure rate, such drainage structures and erosion control features shall be oversized, designed for low maintenance, reinforced, or removed before the completion of timber operations or as specified in the plan. Guidance on reducing the potential of failure at high risk watercourse crossings may be found in the Board's Technical Rule Addendum Number 5.

Page 58, line 6: The following new section is proposed to provide improved clarity and guidance to Registered Professional Foresters, agency staff, and the public regarding when existing watercourse crossings, particularly culverts, are adequate and do not require replacement. Note that this is modified language that was in earlier road rule packages and denoted as 14 CCR § 923.16 [943.16, 963.16] (f), as well as existing rule language, 14 CCR §§ 923.4 [943.4, 963.4] (f) and 923.4 [943.4, 963.4] (n).

923.9 [943.9, 963.9] (c) Watercourse Crossings

Existing watercourse crossing drainage structures and associated necessary protective structures shall be maintained, repaired, and replaced as needed to minimize crossing blockage and to provide for adequate capacity. Properly functioning watercourse crossings on roads that existed before timber operations need not be removed, but must be constructed or maintained to prevent diversion of overflow down the road should the drainage structure become plugged.