

## **INITIAL STATEMENT OF REASONS**

### **AB 1515, Forest Fire Prevention Exemption, 2007**

**[Published August 17, 2007]**

#### **Title 14 of the California Code of Regulations (14 CCR):**

##### **Amend**

##### **Adopt 14 CCR § 1038(i) Exemption**

The California State Board of Forestry and Fire Protection (Board) is promulgating a regulation to implement legislative amendments to Public Resource Code (PRC) 4584 (k) authorized under Assembly Bill (AB) 1515. This legislation will, if passed, authorize the Board to modify fuel treatment standards and other requirements of the Forest Fire Prevention Exemption contained in 14 CCR 1038(i). This Forest Fire Prevention Exemption exempts persons who conduct timber operations from preparing and submitting Timber Harvest Plans, completion reports, and stocking reports when harvesting trees and other commercial forest products for the purpose of reducing the rate of fire spread, fire duration and intensity, fuel ignitability, and ignition of tree crowns.

The primary purpose of the proposed regulation is to modify the fuel treatment standards to reduce economic impacts while reducing the wildfire hazard in the treated forest areas. The amendments modify fuel treatment standards for economic efficiency, delete the four foot flame length standard, establish new treatment standards that reduce fire hazards, clarify treatment requirements for better compliance and consistency, and establish a rule extension period.

#### **PUBLIC PROBLEM, ADMINISTRATIVE REQUIREMENT, OR OTHER CONDITION OR CIRCUMSTANCE THE REGULATION IS INTENDED TO ADDRESS**

##### **Addressing wildfire hazards and threats to life, property and resources**

The regulation is necessary to address wildfire conditions that are a threat to resources and the overall public health and safety of Californians. Past disruptions of natural fire cycles and other activities have resulted in wildfires of increasing intensity and severity that are a threat to the forest ecosystem, air quality, fresh water supplies, private citizens, emergency services personnel, and the overall public health and safety of California. Additionally, healthy forests are a common goal for Californians, but overstocked forests cause increased tree mortality resulting in the build up of flammable fuels. The treatment of these hazardous fuels will reduce the impact of wildfires on communities, natural resources, and will restore health to fire-adapted ecosystems.

The State Board of Forestry and Fire Protection (Board) recognizes the urgent, extensive and on-going wildfire hazard existing on private forest lands resulting from the combination of increasing quantity and arrangement of natural vegetation. This wildfire hazard is a significant threat to human and natural resources on over 48 million of the State's 81 million acres of forests and rangelands. The imminent emergency nature of the fuel hazard problem has also been repeatedly recognized by many high profile efforts including the Governor's Blue Ribbon Fire Commission of 2004, U.S. General Accounting Office report on western National Forest fire conditions, the Western Governors' Association promulgation of the National Fire Plan, the USDA Forest Service (USFS) Sierra Nevada Forest Plan Amendment, 2004, and legislation proposed by the California State Assembly.

### **Expiration of existing regulation under 14 CCR 1038 (i)**

One of the primary necessities of the proposed regulation is to extend the existing rule which is set to expire on January 1, 2008.

### **Monitoring of fuel treatments under existing regulation indicates low rate of use**

In 2005, the Board determined that a combination of performance and prescriptive standards for vegetative treatment requirements best meets hazard reduction goals. The performance standard components focus on meeting the goal of treatments to eliminate the vertical continuity of vegetative fuels and the horizontal continuity of tree crowns, for the purpose of reducing the rate of fire spread, fire duration and intensity, fuel ignitability, or ignition of tree crowns. The primary treatment standard used to obtain hazard reduction goals was a "post harvest fuel condition with maximum 4 foot flame lengths when burned under severe fire weather." This objective produces maximum fire safe conditions for structure protection and provides a location suitable for deployment of fire suppression crews.

This standard was found to be ambiguous to interpret and resulted in very intensive treatment of surface, ladder and crown fuels resulting in very "clean" understory forest conditions because applicants and forest practice inspectors routinely required complete clean up of all slash to ensure compliance. This treatment level resulted in greater expense and level of hazard reduction than is necessary to meet hazard reduction goals.

This standard resulted in minimal acreages of hazard reduction because of the expense associated with implementing the prescription. With over a million acres of private timberlands suitable for this treatment, less than 3000 acres was treated since late 2004. Given this low rate of use, the Board focused on finding amendments that provide for adequate fuel hazard reduction and reduced costs of the fuel treatment.

## **SPECIFIC PURPOSE OF THE REGULATION**

The primary purpose of the proposed regulation is to modify the fuel treatment standards to reduce economic impacts to those choosing to implement the regulation while reducing the wildfire hazard in the treated forest areas. The amendments proposed modify fuel treatment standards for economic efficiency, delete the four foot flame length standard, provide for sample marking of harvest trees in certain situations, clarify timing of completion for required fuel treatment activities, provide consistency with other regional exemption requirements, and establish a rule extension period.

Specific purpose and necessity of each subsection of the regulation are described below:

Subsection 1038 (i) (6) is amended to allow sample marking of trees to be harvested or retained. Sample marking would be permitted only in certain situations such as forest types with homogeneous characteristics similar to plantations. Sampling marking is expected to reduce cost of implementation as fewer trees would be designated with a paint stripe and stump mark. The subsection is also amended to focus marking and harvesting prescriptions on the need for wildlife habitat requirements valuable to long term wildlife populations.

Subsection 1038 (i) (8) is amended to clarify how the maximum tree diameter size permitted to be harvested shall be measured for inspection purposes. The amendment specifies the maximum diameter shall be measured from outside bark of the stump. The amendment improves enforceability of the regulation and reduces confusion for inspectors during compliance inspections.

Subsection 1038 (i) (10) (A) modifies fuel treatment standards by incorporating Board adopted “defensible space” guidelines found in 14 CCR 1299. The proposed amendments require certain separation or spacing between surface debris, shrub, and smaller tree fuels after harvesting. The proposed amendments would be applicable to areas within 500 feet of homes or firebreaks. The proposed amendments 1) provide hazard reduction for fuels which must be treated to avoid fire spreading to the larger trees, 2) provide fire intensity conditions (heat levels) that allow fire fighting crews to take direct suppression tactics for some forest settings, 3) reduce economic impacts and costs incurred by landowners by permitting efficient fuel removal, 4) diminish the likeliness that soil erosion environmental effects would occur due to landowners “cleaning” the forest floor, 5) increase retention of wildlife habitat in the form of hiding cover for small animals, and 6) improve forest resistance to invasive species by allowing forest floor vegetation cover to be retained.

Subsection 1038 (i) (10) (B) focuses on reducing the number of trees per acre to eliminate overstocking of trees, reducing the spread of fire from tree to tree, and improving forest health. It applies to areas further than 500 feet from homes or fuelbreaks. The requirement specifies retaining no more than 200 trees per acre, and reducing depth of slash created by harvesting to a maximum depth of 9 inches. The proposed amendments ensure that an adequate number of trees are removed to achieve

fire hazard reduction goals for the tree portion of the fuel profile. It will substantially reduce harvesting operation costs by eliminating the requirement for removal of brush or surface debris found on the site prior to harvesting.

Subsection 1038 (i) (11) deletes the “four foot” flame length requirement with standards in subsection (10) (A) and (B). Additionally, the proposed amendments adds clarification of timing of completion of fuel treatment requirements. The amendment clarifies that slash and fuels must be treated within 120 days of commencement of operations (except for burning) in any area where operational treatments have begun, rather than in the entire exemption project area. The amendment ensures that timely completion of fuel treatment is accomplished.

Subsection 1038 (i) (13) requires projects conducted in the Lake Tahoe Region to comply with resource protection standards applicable to Lake Tahoe Region exemptions under 14 CCR 1038(f). The resource protection standards applicable to Lake Tahoe Region are different from requirements for exemptions in other parts of the State. The amendment improves regulatory consistency.

Subsection 1038 (i) (15) provides an expiration date of January 1, 2008, after which this class of exemption would be terminated. This expiration provides the Board with the opportunity to revise the regulation to improve effectiveness, evaluate the extent of the fuel hazard exemptions completed, and adjust the exemption to avoid any long term unintended consequences.

## **NECESSITY**

The regulation is required by statutory amendments to PRC 4584(k) and to address the public problem with hazard fuel and wildfire conditions previously discussed.

## **ALTERNATIVES TO THE REGULATION CONSIDERED BY THE BOARD AND THE BOARD’S REASONS FOR REJECTING THOSE ALTERNATIVES**

The Board has considered alternatives and rejected the following alternatives:

**Alternative #1: Defensible space standards applicable to all geographic areas of 14 CCR 1038(i).** This alternative would have required the more intensive fuel treatment requirements found in 14 CCR 1299 be applied to all geographic areas permitted by the exemption, not just near homes and firebreaks. This alternative was rejected as less intensive and less expensive fuel treatment requirements were determined to be appropriate for improving fire hazards outside wildland urban interface areas. Application of the defensible space standards, which were primarily designed for reducing hazards around homes, would not have highly contributed to reducing operational costs and encouraging wider use of the regulation. Also, this alternative was found to be inconsistent with the underling statute.

**Alternative 2:** This alternative provides for sample marking to apply to a wider range of forest settings. This alternative was rejected as it was not specifically permitted by the enabling legislation.

### **ALTERNATIVES TO THE PROPOSED REGULATORY ACTION THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS**

The Board has considered alternatives to lessen the impact on small business, see **ALTERNATIVES TO THE REGULATION CONSIDERED BY THE BOARD AND THE BOARD’S REASONS FOR REJECTING THOSE ALTERNATIVES** in this initial statement of reasons. The Board has determined that all alternatives, and specifically the proposed action, would lessen any adverse impact on small businesses because all alternatives contribute to a reduction in regulatory burden to small businesses that choose to implement the regulation. Additionally, the regulation is optional to those who chose to implement it. As such, each person or entity will have made their own investigation and conclusions on any net benefits to be derived by implementing the regulation.

### **EVIDENCE SUPPORTING FINDING OF NO SIGNIFICANT ADVERSE ECONOMIC IMPACT ON ANY BUSINESS**

This regulatory proposal is not considered to cause a significant adverse economic impact because it is a voluntary action. Each person or entity will have made their own investigation and conclusions on any net benefits to be derived by implementing the regulation. The proposed action is especially designed to be “regulatory relief” from the current rule as it is expected to reduce the economic burden of treating hazardous forest fuels as required under the existing 14 CCR 1038(i).

All fuel treatment requirements for these amendments have a substantial economic benefit to landowners. They reduce the expense of brush removal, and intensive treatment of debris on the forest floor. Expected savings of \$200 to \$400/acre in reduced fuel treatment costs, compared to the four foot flame length standards, could be attained while still substantially improving fire safe conditions.

### **POSSIBLE SIGNIFICANT ADVERSE ENVIRONMENTAL EFFECTS AND MITIGATIONS**

The Board has considered adverse environmental effects from the proposed action. Such consideration was conducted to meet California Environmental Quality Act (CEQA) requirements for a project by using the functional equivalent certification to an EIR granted to the Board for its rulemaking process. Analysis in the original rulemaking OAL #05 1004-03 S, approved by Office of Administrative Law (OAL) and endorsed by the Secretary of State on November 9, 2005, has identified several resources that may be potentially affected. The proposed regulation imposes no new or additional potentially significant adverse environmental effects beyond those initially described in the original rule file. The analysis conducted for consideration of potential environmental effects from the above rulemaking file is included as a reference document for this

determination.

The Board has incorporated mitigation measures as part of the previously mentioned permanent adoption of this regulation to eliminate or substantially lessen significant effects on the environment where feasible. Such mitigation measures include avoiding removal of larger trees; prohibiting operations in watercourses; no operation on steep slopes; no new road construction; watershed protection measured specifically designed for the unique water quality issues in the Lake Tahoe Basin; incorporating protection requirements of species that may be impacted including retention of special habitat elements (snags and down large woody debris) to maintain and enhance wildlife values, screening and cover to provide shelter and migration corridors; review and disclosure of threatened, endangered or sensitive species, and no operation in areas with a Board defined sensitive species; and additional time for cultural resources review. Finally, all the operation provisions of the Forest Practice Rules (Title 14, CCR Chapter 4, 4, 5 and 10) apply to the proposed regulation. The standard operational provisions have been determined to be effective for environmental protection and have been certified by the Resources Agency Secretary as a functional equivalent to an Environmental Impact Statement. Together, the standard provisions of the Forest Practice Rules and the unique protective requirements of this regulation are expected to provide an insignificant level of environmental impacts.

Remaining unavoidable impacts, if any, are determined to be acceptable in light of the environmental, economic, legal, social, and other considerations, because the benefits of the regulation outweigh the significant and adverse impacts. With implementation of these mitigations, effects will be substantially lessened or eliminated. However, all impacts may not be avoided, particularly related to impacts on wildlife habitat and visual screening. If any impacts remain they are likely minor, and more than overridden by the catastrophic losses resulting from wildfire to life, property, human health, and natural resources.

## **TECHNICAL, THEORETICAL, AND/OR EMPIRICAL STUDY, REPORTS, OR DOCUMENTS**

The Board of Forestry and Fire Protection consulted the following listed information and/or publications as referenced in this *Initial Statement of Reasons*. Unless otherwise noted in this *Initial Statement of Reasons*, the Board did not rely on any other technical, theoretical, or empirical studies, reports or documents in proposing the adoption of this regulation.

### Technical Documents

1. Forestry Berkeley, Vol 3 Issue 1: Fire and Fire Surrogate Study
2. Pacific Northwest Research Station. June 2004. Science Update, Reducing Fire Hazard: Balancing Cost and Outcomes.

3. USDA Forest Service. 2004. Urban Interface Communities: Preparing a Community Wildlife Protection Plan
4. USDA Forest Service. April, 2004. Fireshed Assessment: An Integrated Approach to Landscape Planning. R5-TP-017.
5. USDA Forest Service Pacific Southwest Research Station. A Proposed Long Term National Study of the Consequences of Fire and Fire Surrogate Treatments.
6. USDA Forest Service Rocky Mountain Experiment Station. April, 2004. Science Basis for Changing Forest Structure to Modify Wildfire Behavior and Severity. GT: RMRS-GTR-120
7. USDA Forest Service, Pacific Southwest Region. January 2004. Sierra Nevada Forest Plan Amendment: Final Supplemental Environmental Impact Statement. R5-MB-046.
8. United States General Accounting Office. Western National Forest: A Cohesive Strategy is Needed to Address Catastrophic Wildlife Threats. GAO/RCED-99-65.
9. United States General Accounting Office. Western National Forest: Status of Forest Service's Effort to Reduce Catastrophic Wildfire Threats. GAO/RCED-99-241.
10. Governor's Blue Ribbon Fire Commission, Report to the Governor.
11. Elsiever. The Use of Shared Fuel Breaks in Landscape Fire Management. Forest Ecology and Management.
12. FRAP, California Department of Forestry and Fire Protection. 2003. Wildfire Risk to Assets.
13. FRAP, California Department of Forestry and Fire Protection. 2003. Trends in Wildland Fire
14. Sapsis, Dave. CDF Fire Plan, Hazard Assessment Methods. California Department of Forestry and Fire Protection
15. Stephens, Scott, Lewis. Evaluation of the Effects of Silvicultural and Fuels Treatment on Potential Fire Behavior in Sierra Nevada Mixed-Conifer Forest.
16. De Lasaux, Micheal. Can Residents in Forested Communities Effectively and Economically Reduce Excessive Fuels?
17. Nunamaker, Clare. June, 2004. Common Ground in Fuels Reduction.
18. Sierra Nevada Forest Plan Amendment. Final Supplemental Environmental Impact Statement.
19. Adams, Gerald/Smith, Ed. Incline Village/ Crystal Bay Defensible Space Handbook.
20. Alexander, Martin, PhD, RPF. Understanding Fire Behavior, The Key to Effective Fuel Management.
21. Anderson, Hal. Aids to Determining Fuel Models For Estimating Fire Behavior.
22. Bonnicksen, Thomas, M. Fire Breaks Offer False Security, Symbolize Failure.
23. Carey, Henry; Schumann, Martha. Modifying WildFire Behavior- The Effectiveness of Fuel Treatments.
24. Cohen, Jack D. Reducing Wildland Fire Threat to Homes: Where and How Much
25. Gilmer, Maureen. 1994. California Wildfire Landscaping: Creating Bands Of Protection With Plants, Managing Native Vegetation, Getting Help: Public and Private Resources.
26. Minnich, Ralph. February, 1996. Fuel Reduction Guidelines.

27. Sapsis, D. July 25, 2005. Fire Behavior Modeling Considerations.
28. Scott, Joe, H. Canopy Fuel Treatment Standards for the Wild land-Urban Interface.
29. Stephens, Scott, L. Testimony for the Resources Subcommittee on Forest and Forest Health Field Hearing on the Sierra Nevada Forest Plan: Protecting Communities, Water, Wildlife, and the Forest of Sierra Nevada.
30. California Department of Forestry and Fire Protection. 2004 Wildfire Activity Statistics.
31. Agree et al.. The Use of Shared Fuel Breaks in Landscape Fire Management. Forest Ecology and Management.
32. California Codes Public Resources Code, Section 4291-4299.
33. California Department of Forestry and Fire Protection. Homeowners Checklist: How to Make Your Home Fire Service.
34. Nevada County Fire Plan. 2004. Defensible Space-Defensible Community Guidelines Summary.
35. Fire Safe Council. July, 2005. Living With Fire: A Guide for the Homeowner.
36. Miscellaneous. Newspaper Article
37. Pacific Northwest Research Station. June 2004. Science Update, Reducing Fire
38. Hazard: Balancing Cost and Outcomes.
39. USDA Forest Service Rocky Mountain Experiment Station. Assessing Crown Fire Potential by Linking Models of Surface and Crown Fire Behavior. RMRS-RP-29.
40. USDA Forest Service Rocky Mountain Experiment Station. April, 2004. Science Basis for Changing Forest Structure to Modify Wildfire Behavior and Severity. GT: RMRS-GTR-120
41. USDA Forest Service Pacific Northwest Research Station. September 1999. The Effects of Thinning and Similar Stand Treatments on Fire Behavior in Western Forests.
42. California Department of Forestry and Fire Protection. Controlling Nature's Wrath. (see compact disc). 2005.
43. County of San Diego. San Diego County Multiple Species Conservation Program. September 9, 2005.
44. CDF FRAP. Housing Densities by Wildfire Responsibility Areas. April 2005.
45. Oregon Department of Forestry. Oregon Forestland-Urban Interface Fire Protection Act, Property Evaluation & Self-Certification Guide- For Deschutes County. August 2004.
46. City of San Diego. Fire Safety and Brush Management for Private Property. May, 2004.
47. Nevada County Fire Plan. 2005. Appendix- Defensible Space Fuel Management Prescription.
48. Longcore, Travis and Rich, Catherine. May 30, 2002. Protection of Environmentally Sensitive Habitat Areas in Proposed Local Coastal Plan for the City of Malibu. The Urban Wildlands Group, Inc.
49. Longcore, Travis. 2003. Ecological Effects of Fuel Modification on Arthropods and Other Wildlife in an Urbanizing Wildland. The Urban Wildlands Group.

50. California Department of Forestry and Fire Protection. Fire Resource Assessment Program (FRAP). 2005. Backyard Acres to Maintain Fire Safe.
51. Keeley, John et al. 2004. Lessons From the October 2003 Wildfires in Southern California. Journal of Forestry.
52. Brooks, Matthew L et al. July 2004. Effects of Invasive Alien Plants on Fire Regimes. BioScience.
53. Greenlaw, Charles. December 13, 2005. "Defensible Space" Fuel Reduction Around Your Home in the Woods. Forest Landowner of California.
54. Berryman, Ron. Fall 2005. Wildfire and Your Property. Forest Landowner of California.
55. California Codes. December 12, 2005. Street and Highways Code Section 260-284. [www.leginfo.ca.gov](http://www.leginfo.ca.gov)
56. California State Scenic Routes. December 12, 2005. List of California State Scenic Routes. [www.en.wikipedia.org](http://www.en.wikipedia.org)
57. County of Santa Barbara. Living with Fire- A Guide for Homeowners in Santa Barbara County. Fire Safe Council.
58. Board of Forestry and Fire Protection official rule file, Defensible Space, 2005, OAL Action Number 06-0324-04S , pages 1-29, pages 201 to 241.
59. Board of Forestry and Fire Protection official rule file, Fuel Hazard Reduction, OAL #05 0623-01 C, pages 1-209; "CUMULATIVE EFFECTS ANALYSIS AND ADDITIONAL DISCUSSION OF POSSIBLE SIGNIFICANT ADVERSE ENVIRONMENTAL EFFECTS" and pages 02066 to 02100.
60. Reid, Leslie. November, 2005. Channel erosion, mass wasting and fuel treatments. USDA FS Pacific Southwestern Research Station.
61. Fuel Hazard Reduction Emergency /regulation: Field Monitoring Results Update. May, 2005.
62. California Department of Forestry and Fire Protection. December, 2006. Fuel Hazard Reduction Emergency and Forest Fire Prevention Exemption Summary 2004 to Present.
63. California Department of Forestry and Fire Protection. May, 2007. Fuel Hazard Reduction Emergency and Forest Fire Prevention Exemption Notices.
64. California Department of Forestry and Fire Protection. March 14, 2007. Field comments La Malfa Exemption (and Fuel Hazard Reduction Emergency).
65. Martin, Charlie. Email dated March 13, 2007.
66. Violett, Paul. April 11, 2007. Fuel Hazard Reduction Case Study, Reagan Freedom Sale.
67. Ostrowski, Jim. May 17, 2007. Fuel Hazard Reduction Exemption and Emergency Fuel Treatment Strategy.
68. California Department of Forestry and Fire Protection. May 31, 2007. Behave Plus 3.0.2 fire behavior computer analysis.
69. Scott, Joe. Burgan, Robert. June, 2005. Standard Fire Behavior Fuel Models: A Comprehensive Set for Use with Rothermel's Surface Fire Spread Model. USDSA FS Rocky Mountain Research Station, GTR RMSRS-GTR-153.
70. Board of Forestry and Fire Protection official rule file, AB2420, OAL ##05 1004-03 S, pages 1-21 and pages 200-220

**Pursuant to Government Code 11346.2(b)(6)**: In order to avoid unnecessary duplication or conflicts with federal regulations contained in the Code of Federal Regulations addressing the same issues as those addressed under the proposed regulation revisions listed in this *Statement of Reasons*; the Board has directed staff to review the Code of Federal Regulations. The Board staff determined that no unnecessary duplication or conflict exists.

## **PROPOSED TEXT**

The proposed revisions or additions to the existing rule language is represented in the following manner:

UNDERLINE indicates an addition to the California Code of Regulations, and

~~STRIKETHROUGH~~ indicates a deletion from the California Code of Regulations.

All other text is existing rule language.

AB 1515 ISOR 8\_7\_07.doc