

**Board of Forestry and Fire Protection
Title 14 of the California Code of Regulations**

[Notice Published January 20, 2012]

NOTICE OF PROPOSED RULEMAKING

Defensible Space, 2012

The Board of Forestry and Fire Protection (Board) proposes to adopt the regulations of Title 14 of the California Code of Regulations (14 CCR) Division 1.5, Chapter 7 [Fire Protection], and Article 3, described below after considering all comments, objections, and recommendations regarding the proposed action.

Amend:

§ 1299 Defensible Space Regulations - PRC § 4291

PUBLIC HEARING

The Board will hold a public hearing on Wednesday, March 7, 2012 starting at 8:00 a.m., at the Resources Building Auditorium, 1st Floor, 1416 Ninth Street, Sacramento, California. At the hearing, any person may present statements or arguments, orally or in writing, relevant to the proposed action described in the *Informative Digest*. The Board requests, but does not require, that persons who make oral comments at the hearing also submit a summary of their statements. Additionally, pursuant to Government Code § 11125.1, any information presented to the Board during the open hearing in connection with a matter subject to discussion or consideration becomes part of the public record. Such information shall be retained by the Board and shall be made available upon request.

WRITTEN COMMENT PERIOD

Any person, or authorized representative, may submit written comments relevant to the proposed regulatory action to the Board. The written comment period ends at 5:00 P.M., on Monday, March 5, 2012. The Board will consider only written comments received at the Board office by that time (in addition to those written comments received at the public hearing). The Board requests, but does not require, that persons who submit written comments to the Board reference the title of the rulemaking proposal in their comments to facilitate review.

Written comments shall be submitted to the following address:

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

Written comments can also be hand delivered to the contact person listed in this notice at the following address:

Board of Forestry and Fire Protection
Room 1506-14
1416 9th Street
Sacramento, CA

Written comments may also be sent to the Board via facsimile at the following phone number:

(916) 653-0989

Written comments may also be delivered via e-mail at the following address:

board.public.comments@fire.ca.gov

AUTHORITY AND REFERENCE

Under the authority of Public Resources Code Section 4291, the Board is amending Article 3, Chapter 7, Title 14, California Code of Regulations. References include Sections 4111, 4292-4296, and 4125 to 4128 of the Public Resources Code. The statutes authorize the Board to make and enforce regulations necessary for the organization, maintenance, governance and direction of fire protective systems for prevention and suppression of forest fires. This statute, among other things, requires persons in State Responsibility Area (SRA) to maintain around and adjacent to a building or structure additional fire protection or a firebreak by removing all brush, flammable vegetation, or combustible growth that is located up to 100 feet from the building or structure or to the property line.

INFORMATIVE DIGEST/POLICY STATEMENT OVERVIEW

In response to the reporting requirements of Government Code Section 11346.5(a)(3)(C), the Board anticipates that this proposed regulation will result in additional protection of public health and safety, firefighter safety, and environmental values including but not limited to water quality and landscape aesthetics. The Board does not anticipate that this proposed regulation will result

in the prevention of discrimination, the promotion of fairness or social equity, or an increase in openness and transparency in business and government.

In response to the reporting requirements of Government Code section 11346.5(a)(3)(D) the Board finds that the proposed regulation is consistent and compatible with existing state regulations and statutory obligations for “fire safe” vegetative conditions in areas designated as State Responsibility Area for fire protection.

The proposed regulation is necessary to address wildfire conditions that are a threat to homes, resources, and the overall public health and safety of California. The combination of overstocked forests, dense brush and increased human habitation in the SRA has resulted in substantial fire hazards to homes and residents.

This wildfire hazard is particularly relevant to the existing homes in the Wildland Urban Interface which is typically associated with the SRA lands. Wildfire hazard is a significant threat to human and natural resources throughout the 31 million acres of SRA, and potentially affects over 800,000 homes within the SRA.

According to CAL FIRE’s statistics for 2007, a total of 3,610 fires within its jurisdiction burned a total of 434,667 acres and destroyed 3,079 structures. CAL FIRE’s estimated cost for suppression of these fires was \$298.3 million and the estimated damage in dollars amounted to \$254.1 million. Outside of CAL FIRE’s Direct Protection Area (DPA) and including contract counties as well as federal lands managed by the United States Forest Service, Bureau of Land Management, and National Park Service, the total acres burned in 2007 was estimated at 1,520,362.

Perhaps the most noteworthy aspect of the 2007 fire season is that most of the activity came at the very end of the season. As excerpted from the “2007 Fire Summary” on page 10 of CAL FIRE’s, 2007 Wildfire Activity Statistics Annual Report:

Up until October, California’s fire season had been relatively light. Seasonable conditions were seen throughout the state through the middle of October. That all changed as forecasters predicted a strong off shore flow beginning October 21, 2007. CAL FIRE and other fire departments began to pre-position staff and fire equipment throughout Southern California. On October 21st, numerous wildfires sparked across Southern California. With the combination of strong winds, low humidity, and dry conditions, the situation was set for disaster. Fueled by dry vegetation and strong Santa Ana Winds, firefighters battled several raging infernos. Nearly one million residents were evacuated. This was the largest mass evacuation in California history. Ten people lost their lives and over 510,000 acres were charred from the fire siege. The last of the raging wildfires were not fully contained until early November, 2007.

The catastrophic fires experienced in the 2008 fire season are no less examples of the extreme interaction of weather, fuels and topography. As reported by CAL FIRE, a total of 2,096 fires burned nearly 2.1 million acres in the 2008 fire season. In addition, 511 structures were burned to the ground and 15 individuals were killed.

On June 20, 2008, over 6,000 lightning strikes were recorded in at least 26 California counties. These lightning strikes resulted in over 2,000 distinct fires that were fought by over 25,000 firefighting personnel from local, state, federal, and international sources. The “Mendocino Lightning Complex Fire” consisted of 129 distinct fires that burned an estimated 54,817 acres at a cost of \$48.5 million. Similarly, the “Butte Lightning Complex Fire” consisted of 37 separate fires that consumed 59,440 acres at a cost of \$85.3 million. Small mountain communities suffered significantly as a result of the fires. Over two hundred residences in the Butte community of Concow alone were lost as a result of the fires. The implication of these fires is that the combination of untreated natural landscapes increasingly proximate to homes and communities can have catastrophic, if not historically poignant effects.

SPECIFIC PURPOSE OF THE REGULATION

The purpose of this regulation is to provide guidance for implementing the defensible space criteria of existing statute, Public Resources Code Section 4291, and minimize the spread of fire within a one hundred foot (100 ft.) zone around a building or structure. The proposed regulation is necessary for improved utility and clarity of defensible space requirements imposed by the statute. As indicated previously, wildfire-related financial losses in the form of property damage have increased substantially over time.

This is at least partly due to the increased development of formerly undeveloped lands in SRA and the attendant wildfire risk faced by homeowners at the interface of wild and urban lands. The intent of the statute and this proposed regulation is to reduce the potential for property losses due to wildfire. It is also intended to reduce the risks faced by firefighters who have increasingly been expected to defend homes in the wildlands, even at the expense of their own lives.

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

Subsection 1299.01 identifies the intent and purpose of the regulation. The dual intention of the regulation is to improve safety for firefighters defending a home, and increase the wildfire survivability of buildings or structures in State Responsibility Areas (SRA).

Subsection 1299.02 provides definitions for the terms “defensible space,” “building or structure,” and “outbuilding.” These definitions are necessary to ensure that the regulated public has a clear understanding of the requirements of the regulation.

Subsection 1299.03 provides the areas where the clearance requirements are necessary, as well as the fundamental expectations of what will be required. It also references two “guidance” documents that suggest ways to meet the defensible space clearance requirements. The guideline reference documents are titled “General Guidelines for Creating Defensible Space” and the “Property Inspection Guide”. The former is intended to provide information for the general public and describes basic criteria that will result in conformance with proposed regulation and existing statute. It is incorporated by reference in the regulation and available on the Board’s website.

The Property Inspection Guide provides more detailed information on acceptable ways to obtain compliance with PRC Section 4291 and is primarily for use by inspectors and fire officials. This document is not incorporated by reference in the regulation, but can be found on the CAL FIRE website.

The Guidelines for Creating Defensible Space includes several sections. The sections include an introduction on the purpose of the guideline (Section A.); Definitions (Section B.); and fuel treatment guidelines that help describe effective hazard reduction treatments (Section C.).

Section “A” of the guidance document includes an overview of the purpose of the guidelines and educational content for applying defensible space practices. Key to this section are discussions on the wide variety of fuel reduction standards necessary due to the fuel and climatic variations in the state; educational components which describe environmental protection steps necessary to avoid impacts as a result of the clearing; and other advice on compliance with any local permits or local restrictions.

Section “B” of the guidance document provides definitions used in the guideline document, as terminology can be technical and the goal of the guideline is to clearly communicate the terms to the general public.

Section “C” of the guidance document details two different fuel treatment methods which, when applied, will result in compliance with the existing statute and proposed regulation. Both fuel treatment methods (“4a. Reduced Fuel Zone: Fuel Separation Method;” and “4b. Reduced Fuel Zone: Defensible Space with Continuous Tree Canopy”) provide a variety of treatments that involve removal of vegetation to create space between fuels and reduce the chance of fire spread from fuel to fuel.

“Option 4a” in the guidance document includes vegetation clearing standards that have been widely used by fire agencies for many years and such standards are well documented in literature as effective for reducing wildfire spread around

homes. “Option 4b” in the guidance document addresses the need for achieving hazard reduction while maintaining aesthetic values around homes. The option includes a method to reduce problematic fuels (ground and ladder fuels) while maintaining a continuous canopy of trees. Tree retention was recognized by the Board as an important aspect of preserving scenic qualities around a home.

Subsection 1299.04 defines those circumstances when additional clearance might be required. It provides the fire inspection official the authority to direct removal or modification of any specific fire hazard determined to be necessary and consistent with 1299.03. This provision ensures that fire officials retain final authority on determining acceptable implementation of the standard regulation.

Subsection 1299.05 allows for exceptions to the requirements, where it can be demonstrated that these requirements provide for the same practical effect. It provides the fire inspection official the authority to approve alternative hazard reduction or fire prevention practices that have the same effect as those stated in the referenced guideline under Section 1299.03 and which are consistent with the statute. This provision provides added flexibility to the regulated public and may ultimately result in less cost, reduced resource impacts, or other benefits, while reducing the vulnerability of the home to wildfire.

DISCLOSURES REGARDING THE PROPOSED ACTION

The Board has determined the proposed action will have the following effects:

- Mandate on local agencies and school districts: None
- Costs or savings to any State agency: None
- Cost to any local agency or school district which must be reimbursed in accordance with the applicable Government Code (GC) sections commencing with GC § 17500: None
- Other non-discretionary cost or savings imposed upon local agencies: None
- Cost or savings in federal funding to the State: None
- The Board has made an initial determination that there will be no significant statewide adverse economic impact directly affecting business, including the ability of California businesses to compete with businesses in other states.
- Cost impacts on representative private persons or businesses: Statutory obligations for defensible clearance exist regardless of the clarifying proposed regulation. Cost estimates for compliance by individual property owners are discussed in the Initial Statement of Reasons (ISOR) document and varies by context. It is uncertain, but possible that homeowners would receive a monetary benefit from the proposed regulation in the form of static insurance rates.
- Significant effect on housing costs: None

- Adoption of these regulations will not: (1) create or eliminate jobs within California; (2) create new businesses or eliminate existing businesses within California; or (3) affect the expansion of businesses currently doing business within California. In response to Government Code Section 11346.5(a)(10), the Board anticipates that this proposed regulation will result in benefits to the health and welfare of California residents, firefighter safety, and environmental values including water quality and preservation of visual aesthetics.
- Effect on small business: None. The Board has determined that the proposed regulation will not affect small business as it simply clarifies existing statutory responsibilities for defensible space clearance entirely borne by homeowners in SRA. Small businesses operated out of such homes likewise already bear this statutory obligation and receive the attendant benefits of defensible clearance in terms of protection of their business/residential ownership.
- The proposed rules do not conflict with, or duplicate Federal regulations.

BUSINESS REPORTING REQUIREMENT

The regulation does not require a report, which shall apply to businesses.

CONSIDERATION OF ALTERNATIVES

The Board must determine that no reasonable alternative considered by the Board or that has otherwise been identified and brought to the attention of the Board would be more effective in carrying out the purpose for which the action is proposed, would be as effective and less burdensome to affected private persons than the proposed action, or would be more cost-effective to affected private persons and equally effective in implementing the statutory policy or to other provision of law.

CONTACT PERSON

Requests for copies of the proposed text of the regulations, the *Initial Statement of Reasons*, modified text of the regulations and any questions regarding the substance of the proposed action may be directed to:

Board of Forestry and Fire Protection
Attn: Eric Huff
Regulations Coordinator
P.O. Box 944246
Sacramento, CA 94244-2460
Telephone: (916) 653-8031

The designated backup person in the event Mr. Huff is not available is Mr. George Gentry, Executive Officer of the California Board of Forestry and Fire Protection, at the above address and phone.

AVAILABILITY OF STATEMENT OF REASONS AND TEXT OF PROPOSED REGULATIONS

The Board has prepared an *Initial Statement of Reasons* providing an explanation of the purpose, background, and justification for the proposed regulations. The statement is available from the contact person on request. When the *Final Statement of Reasons* has been prepared, the statement will be available from the contact person on request.

A copy of the express terms of the proposed action using UNDERLINE to indicate an addition to the California Code of Regulations and ~~STRIKETHROUGH~~ to indicate a deletion, is also available from the contact person named in this notice.

The Board will have the entire rulemaking file, including all information considered as a basis for this proposed regulation, available for public inspection and copying throughout the rulemaking process at its office at the above address. All of the above referenced information is also available on the Board web site at:

http://www.fire.ca.gov/BOF/board/board_proposed_rule_packages.html

AVAILABILITY OF CHANGED OR MODIFIED TEXT

After holding the hearing and considering all timely and relevant comments received, the Board may adopt the proposed regulations substantially as described in this notice. If the Board makes modifications which are sufficiently related to the originally proposed text, it will make the modified text—with the changes clearly indicated—available to the public for at least 15 days before the Board adopts the regulations as revised. Notice of the comment period on changed regulations, and the full text as modified, will be sent to any person who:

- a) testified at the hearings,
- b) submitted comments during the public comment period, including written and oral comments received at the public hearing, or
- c) requested notification of the availability of such changes from the Board of Forestry and Fire Protection.

Requests for copies of the modified text of the regulations may be directed to the contact person listed in this notice. The Board will accept written comments on the modified regulations for 15 days after the date on which they are made available.



Eric Huff
Regulations Coordinator
Board of Forestry and Fire Protection

INITIAL STATEMENT OF REASONS

Defensible Space, 2012

[Published January 20, 2012]

**Title 14 of the California Code of Regulations (14 CCR),
Division 1.5, Chapter 7 Fire Protection, Subchapter 3, Article 3.**

Adopt:

§ 1299 Defensible Space Regulations.

The California State Board of Forestry and Fire Protection (Board) is promulgating a regulation to modify and add additional detail necessary to implement Public Resources Code (PRC) Section 4291. This statute, among other things, requires persons residing in areas designated by the Board as “State Responsibility Area” (for provision of State fire protection) to maintain vegetation in a condition such that their home can be safely defended in the event of a wildfire. The requirement specifically calls for removal or modification of brush, flammable vegetation, or combustible growth that is located up to one hundred feet (100 ft.) from a building or structure, or to the property line.

In response to the reporting requirements of Government Code Section 11346.5(a)(3)(C), the Board anticipates that this proposed regulation will result in additional protection of public health and safety, firefighter safety, and environmental values including but not limited to water quality and landscape aesthetics. The Board does not anticipate that this proposed regulation will result in the prevention of discrimination, the promotion of fairness or social equity, or an increase in openness and transparency in business and government.

In response to the reporting requirements of Government Code section 11346.5(a)(3)(D) the Board finds that the proposed regulation is consistent and compatible with existing state regulations and statutory obligations for “fire safe” vegetative conditions in areas designated as State Responsibility Area for fire protection.

The proposed regulation provides definitions for “defensible space” and buildings that require defensible space. It also specifies spatial zones where the required vegetation treatment is to occur. The regulation also includes two updated guideline reference documents. The first, titled “General Guidelines for Creating Defensible Space” provides a basic overview of the regulation’s requirements along with suggestions for property owner compliance. This document is incorporated by reference and available on the Board website. The second, “The Property Inspection Guide” describes more detailed criteria used by inspectors for determinations of conformance with the proposed regulation and existing statute. This document is not incorporated by reference, but can be found on the Department of Forestry and Fire Protection (CAL FIRE) website.

The proposed regulation is necessary to address wildfire conditions that are a threat to homes, resources, and the overall public health and safety of California.

The combination of overstocked forests, dense brush and increased human habitation in the SRA has resulted in substantial fire hazards to homes and residents. This wildfire hazard is particularly relevant to the existing homes in the Wildland Urban Interface which is typically associated with the SRA lands. Wildfire hazard is a significant threat to human and natural resources throughout the 31 million acres of SRA, and potentially affects over 800,000 homes within the SRA.

According to CAL FIRE's statistics for 2007, a total of 3,610 fires within its jurisdiction burned a total of 434,667 acres and destroyed 3,079 structures. CAL FIRE's estimated cost for suppression of these fires was \$298.3 million and the estimated damage in dollars amounted to \$254.1 million. Outside of CAL FIRE's Direct Protection Area (DPA) and including contract counties as well as federal lands managed by the United States Forest Service, Bureau of Land Management, and National Park Service, the total acres burned in 2007 was estimated at 1,520,362.

Perhaps the most noteworthy aspect of the 2007 fire season is that most of the activity came at the very end of the season. As excerpted from the "2007 Fire Summary" on page 10 of CAL FIRE's, 2007 Wildfire Activity Statistics Annual Report:

Up until October, California's fire season had been relatively light. Seasonable conditions were seen throughout the state through the middle of October. That all changed as forecasters predicted a strong off shore flow beginning October 21, 2007. CAL FIRE and other fire departments began to pre-position staff and fire equipment throughout Southern California. On October 21st, numerous wildfires sparked across Southern California. With the combination of strong winds, low humidity, and dry conditions, the situation was set for disaster. Fueled by dry vegetation and strong Santa Ana Winds, firefighters battled several raging infernos. Nearly one million residents were evacuated. This was the largest mass evacuation in California history. Ten people lost their lives and over 510,000 acres were charred from the fire siege. The last of the raging wildfires were not fully contained until early November, 2007.

The catastrophic fires experienced in the 2008 fire season are no less examples of the extreme interaction of weather, fuels and topography. As reported by CAL FIRE, a total of 2,096 fires burned nearly 2.1 million acres in the 2008 fire season. In addition, 511 structures were burned to the ground and 15 individuals were killed.

On June 20, 2008, over 6,000 lightning strikes were recorded in at least 26 California counties. These lightning strikes resulted in over 2,000 distinct fires that were fought by over 25,000 firefighting personnel from local, state, federal, and international sources. The "Mendocino Lightning Complex Fire" consisted of 129 distinct fires that burned an estimated 54,817 acres at a cost of \$48.5 million. Similarly, the "Butte Lightning Complex Fire" consisted of 37 separate fires that consumed 59,440 acres at a cost of \$85.3 million. Small mountain communities suffered significantly as a result of the fires. Over two hundred residences in the Butte community of Concow alone were lost as a result of the fires. The implication of these fires is that the combination of untreated natural landscapes increasingly proximate to homes and communities can have catastrophic, if not historically poignant effects.

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

The statutory requirement for this proposed regulation is found in Public Resources Code Section 4291. The most recent amendments to this statute require vegetation clearance up to 100 feet from the structure, or the property line, which ever is less. This statutory clearance requirement is intended to reduce the vulnerability of homes to wildfires and prevent the spread of fire from the homes to the wildlands. The statute provides very general requirements for clearing vegetation for hazard reduction. This proposed regulation provides more specific direction on implementation of the vegetation clearance requirements.

The proposed regulation is necessary to address wildfire conditions that are a threat to homes, resources, and the overall public health and safety of California's citizens. The combination of overstocked forests, dense brush and increased human habitation in parts of the State designated as "State Responsibility Area" (hereafter "SRA") has resulted in substantial fire hazards to homes and residents. This wildfire hazard is particularly relevant to the existing homes in the Wildland Urban Interface which is typically associated with the SRA lands. This wildfire hazard is a significant threat to human and natural resources throughout the 31 million acres of SRA, and potentially affects over 800,000 homes within the SRA. The imminent nature of the fire 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.

The threat to homes from wildfire is well documented. The combination of fuel, weather and valuable human and natural resource assets have created an increasing amount of wildfire and increasing losses. Major wildland fires in California, epitomized by the extraordinary fires of October 2003, threaten a wide range of public and private assets. In 2003, wildfires burned more than 730,000 acres, destroyed 3,600 residential structures, and resulted in the tragic loss of 25 lives. The southern California wildfires were followed by mudslides that likewise resulted in the tragic loss of 14 lives. The subsequent mudslides possibly resulted from vegetation lost to wildfire and flash flooding.

The rolling five year average indicates over 200,000 acres annually were burned. While the area burned in wildfires varies greatly year to year, there has been an apparent increase in high fire years (those years with a total area burned greater than 500,000 acres) since 1985.

While the acreage and number of wildfires each year is extensive and increasing on a statewide basis, a more significant trend is the climbing wildfire-related financial losses. From 1947 to 1990, the dollar damages to structures and other resources in SRA exceeded \$100 million dollars (2001 dollars) only once. Between 1990 and 2001, losses exceeded \$100 million dollars five times.

SPECIFIC PURPOSE AND NECESSITY OF THE REGULATION

The purpose of this regulation is to provide guidance for implementing the defensible space criteria of existing statute, Public Resources Code Section 4291, and minimize the spread of fire within a one hundred foot (100 ft.) zone around a building or structure. The proposed regulation is necessary for improved utility and clarity of defensible space requirements imposed by the statute. As indicated previously, wildfire-related financial losses in the form of property damage have increased substantially over time.

This is at least partly due to the increased development of formerly undeveloped lands in SRA and the attendant wildfire risk faced by homeowners at the interface of wild and urban lands. The intent of the statute and this proposed regulation is to reduce the potential for property losses due to wildfire. It is also intended to reduce the risks faced by firefighters who have increasingly been expected to defend homes in the wildlands, even at the expense of their own lives.

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

Subsection 1299.01 identifies the intent and purpose of the regulation. The dual intention of the regulation is to improve safety for firefighters defending a home, and increase the wildfire survivability of buildings or structures in State Responsibility Areas (SRA).

Subsection 1299.02 provides definitions for the terms “defensible space,” “building or structure,” and “outbuilding.” These definitions are necessary to ensure that the regulated public has a clear understanding of the requirements of the regulation.

Subsection 1299.03 provides the areas where the clearance requirements are necessary, as well as the fundamental expectations of what will be required. It also references two “guidance” documents that suggest ways to meet the defensible space clearance requirements. The guideline reference documents are titled “General Guidelines for Creating Defensible Space” and the “Property Inspection Guide”. The former is intended to provide information for the general public and describes basic criteria that will result in conformance with proposed regulation and existing statute. It is incorporated by reference in the regulation and available on the Board’s website. The Property Inspection Guide provides more detailed information on acceptable ways to obtain compliance with PRC Section 4291 and is primarily for use by inspectors and fire officials. This document is not incorporated by reference in the regulation, but can be found on the CAL FIRE website.

The Guidelines for Creating Defensible Space includes several sections. The sections include an introduction on the purpose of the guideline (Section A.); Definitions (Section B.); and fuel treatment guidelines that help describe effective hazard reduction treatments (Section C.).

Section “A” of the guidance document includes an overview of the purpose of the guidelines and educational content for applying defensible space practices.

Key to this section are discussions on the wide variety of fuel reduction standards necessary due to the fuel and climatic variations in the state; educational components which describe environmental protection steps necessary to avoid impacts as a result of the clearing; and other advice on compliance with any local permits or local restrictions.

Section “B” of the guidance document provides definitions used in the guideline document, as terminology can be technical and the goal of the guideline is to clearly communicate the terms to the general public.

Section “C” of the guidance document details two different fuel treatment methods which, when applied, will result in compliance with the existing statute and proposed regulation. Both fuel treatment methods (“4a. Reduced Fuel Zone: Fuel Separation Method;” and “4b. Reduced Fuel Zone: Defensible Space with Continuous Tree Canopy”) provide a variety of treatments that involve removal of vegetation to create space between fuels and reduce the chance of fire spread from fuel to fuel.

“Option 4a” in the guidance document includes vegetation clearing standards that have been widely used by fire agencies for many years and such standards are well documented in literature as effective for reducing wildfire spread around homes. “Option 4b” in the guidance document addresses the need for achieving hazard reduction while maintaining aesthetic values around homes. The option includes a method to reduce problematic fuels (ground and ladder fuels) while maintaining a continuous canopy of trees. Tree retention was recognized by the Board as an important aspect of preserving scenic qualities around a home.

Subsection 1299.04 defines those circumstances when additional clearance might be required. It provides the fire inspection official the authority to direct removal or modification of any specific fire hazard determined to be necessary and consistent with 1299.03. This provision ensures that fire officials retain final authority on determining acceptable implementation of the standard regulation.

Subsection 1299.05 allows for exceptions to the requirements, where it can be demonstrated that these requirements provide for the same practical effect. It provides the fire inspection official the authority to approve alternative hazard reduction or fire prevention practices that have the same effect as those stated in the referenced guideline under Section 1299.03 and which are consistent with the statute. This provision provides added flexibility to the regulated public and may ultimately result in less cost, reduced resource impacts, or other benefits, while reducing the vulnerability of the home to wildfire.

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

The Board has considered a number of alternatives to the regulation proposed, as indicated below.

Alternative #1: No Modifications to Existing Regulation

This alternative would have resulted in no modifications to the existing regulation and continued reliance upon less specific clearance requirements for determinations of statutory and regulatory compliance by property owners.

This alternative was rejected as it does nothing to improve upon the clarity, utility, and enforceability of the existing regulation. The Board has determined that the clearance required by the statute can be achieved by a variety of vegetation treatment methods. The proposed regulatory amendment is intended to more clearly describe such methods for the benefit of the regulated public.

Alternative #2: Detailed Vegetation Treatment Standards/No Performance Standard

This alternative would create a series of static vegetation removal prescriptions (selective plant cutting and removal) that would have been the regulatory standard for compliance. The prescriptions would involve various clearing widths and vegetation spacing. This alternative was rejected as it did not provide enough flexibility for property owners to meet the statutory requirements. It is recognized that alternative methods for compliance with the statute can be as effective as a static prescription, but less costly. This alternative also did not address the wide range of vegetation clearing specification needed given the wide range of fuel configurations and types, climates, and terrain conditions found throughout the State. Additionally, the detailed vegetation prescription contained information that was technical in nature and would likely not be widely understood by the general public thereby resulting in a likelihood of poor compliance.

Alternative #3: Simple and Flexible Performance Standard Regulation/No Guidance Document.

This alternative would create very broad regulatory language and exclude the use of the guidance documents for assistance with compliance. It would essentially allow the regulated public to meet hazard reduction requirements solely using performance-based standards. This alternative would provide maximum flexibility for regulatory compliance while simultaneously rendering it difficult to determine whether compliance would actually be effective in the event of a fire. This alternative was rejected as it did not contain enough information to guide landowners towards compliance, and did not provide enough information to help fire officials evaluate compliance.

Alternative #4: Adoption of the Regulation as Proposed-Preferred Alternative.

This is the preferred alternative as it would result in the adoption and use of enhanced regulatory guidance for compliance with existing statutory requirements for defensible space clearance. The proposed rule text makes significant amendments to the existing regulation, the result of which is improved clarity and utility for the benefit of the regulated public. It likewise creates a regulatory standard that is flexible while ensuring greater enforceability by the fire authority.

POSSIBLE SIGNIFICANT ADVERSE ENVIRONMENTAL EFFECTS AND MITIGATIONS

The California Environmental Quality Act (CEQA) requires review, evaluation and environmental documentation of potential significant environmental impacts from a qualified project. The Board's rulemaking process was determined to be categorically exempt from environmental documentation in accordance with 14 CCR Section 1153(b) (1), "Declaration of Categorical Exemptions." Landowner implementation of the regulation is not a CEQA project because there is no government permit or funding associated with the activity.

General evaluation of potential significant impacts indicates that significant impacts are unlikely as these projects affect limited area around existing homes.

Such areas generally do not contain substantial areas of native habitats with valuable quantities of habitat components, cultural sites, or beneficial uses of water. The nature of maintenance work conducted under these regulations consists of minor alterations to vegetation and removal for the purpose of maintaining native growth around residential structures.

Analysis of potential significant environmental impacts has identified several resources that may be potentially affected as follows:

Water Quality: Projects conducted under this regulation can result in vegetation clearing near streams and watercourse areas. One concern with vegetation removal around watercourses is reduction in stream water temperature due to reduction in riparian vegetation and overstory tree shade. Recommended guidelines for clearing will typically result in only minor amounts of large vegetation being removed, as the specifications suggest retention of well-spaced shrubs and trees, and focus on removing smaller vegetation. Another concern is soil erosion into watercourses. To mitigate this potential impact, the guidelines permit ground litter to be retained to provide protective soil cover and avoid erosion.

In cases where hazard reduction is conducted in locations where larger trees are being removed and utilized for commercial purposes, the California Forest Practice Rules (FPRs) include requirements to minimize environmental effects. These practices have been determined to be effective in avoiding significant adverse environmental impacts. Such requirements as general prohibition of operations in stream courses, no new road construction, and prohibition of operation on steep slopes are likely to minimize or eliminate impacts of the project on water quality. Generally, projects conducted in compliance with PRC Section 4291 have been determined by the Regional Water Quality Control Boards as acceptable for a "Categorical Waiver" from a waste discharge permit. This indicates the low level of expected impacts to beneficial uses of water likely to result for these operations.

Fish, wildlife, and plant habitat: The projects are expected to create minor disturbance to the ground cover and understory components of several forested, shrub and grassland habitats. The projects are intended to affect the understory components of vegetation cover, with lesser changes to overstory conditions. As such, in consultation with the Department of Fish and Game, primary concern is the understory habitat requirements. Overstory forested canopies are expected to remain intact, with little to no change in the "California Wildlife Habitat Relationship" size and density classifications.

Understory forests conditions and ground cover conditions are expected to be modified by the project. Recommendations are incorporated in the guideline documents to incorporate actions that minimize the affects to understory vegetative and special wildlife habitat elements. Such measures include retention of limited amounts of downed large woody debris for maintenance and enhancement of wildlife values.

Retention of vegetative screening to provide cover and shelter for wildlife is also acceptable. Finally, for larger scale forest operations that remove trees for

commercial purposes, the State's Forest Practice Rules contain operational requirements that have been determined to be effective in avoiding significant adverse environmental impacts to biological resources.

Public concern has been raised during the formulation of the regulation regarding conflicts between fuel hazard reduction requirements and habitat protection or State/Federal Endangered Species Act requirements. Existing endangered species laws are relevant to the action proposed and require compliance. However, many southern California local entities that have experienced catastrophic fire and significant losses of homes have negotiated Memoranda of Understanding (MOUs) or other agreements that recognized the necessity of establishing defensible space around homes as a key component to reducing wildfire effects and protecting species and habitat. As a result, individual MOUs and other agreements provide wildlife "incidental take" permits to facilitate completion of the necessary fuel hazard reduction work where critical habitat is located in the clearing areas. This cooperation demonstrates the importance of the hazard reduction towards avoiding significant impacts to biological resources. It also illustrates the relatively low level of risk of direct impacts to biological resources associated with the clearing projects.

Aesthetic setting: The nature of the projects includes removal of understory vegetation that often acts as a visual screen between houses or other human occupied space (roads, commercial building etc.). Loss of the screening can result in undesired visual effects on those residents in wildlands areas that value the remote setting. Key to the mitigation process will be developing fuel hazard reduction prescriptions which reduce visual impacts while meeting the hazard reduction objective. With the guidelines providing options for incorporating screening elements by leaving well-spaced vegetation and continuous overstory canopies, opportunities to mitigate impacts to aesthetic settings are provided.

The Board has incorporated the above mitigation measures to eliminate or substantially lessen, to a level that is less than significant, the potential adverse effects of this regulation on the environment. Together, the standard provisions of the California Forest Practice Rules and the unique protective requirements of this regulation are expected to provide for the maintenance of beneficial environmental conditions.

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

Summary: Initial economic impacts to the regulated public will occur from implementation of this regulation in the short term due to vegetation clearing around structures. These costs will be incurred by homeowners and business with structures in SRA. These initial costs will be offset or result in an unspecified economic benefit to the regulated public and to State, local and other fire protection providers, resulting in a net zero-dollar economic and fiscal impact.

Economic Costs and benefits: Initial costs are related to the required selective clearing of excess hazardous vegetation around homes ("defensible space") for a distance of one hundred feet (100 ft.) from the structure. The initial costs of the proposed regulation are estimated at a range of zero dollars (\$0.00) per home to an estimated two-thousand dollars (\$2,000.00) per home.

This estimate is based upon each home having to clear up to approximately 1.5 acres per home, but more likely .5 acres per home because of lot size limitations. Most clearing for an individual home will likely involve an 8 hour day of landscaping labor estimated to be approximately two hundred dollars (\$200.00) per home. In some cases, the clearing will generate minor net revenues for homeowners if commercial trees are removed.

There are over 800,000 homes in the State Responsibility Area (SRA) that would potentially be affected by this regulation. However, not all homes will require additional vegetation clearing expenses, as many homeowners have already undertaken this level of vegetation clearing. There is no precise estimate of the number of homes needing vegetation clearing at this time. Anecdotal estimates suggest that as many as 50% of the homes in SRA would require vegetation clearing to comply with this regulation.

As an example of the potential initial costs to the public, treatment of 400,000 homes at \$200 per home would result in an estimated \$80 million dollar expense. This cost would likely occur over a ten year period and be re-incurred after ten years due to the necessity for ongoing maintenance.

Wildfire in California annually results in hundreds of million of dollars in losses to property each year. It is likely that the initial vegetation clearing expenses would be offset by the reduction in financial losses to property and life over a ten to twenty year period. This will be achieved by enhanced defensible space clearance resulting in reduced property losses from wildfire, and therefore fewer insurance claims which in turn may result in lower insurance premiums to consumers in the long run. The September 2005 "Topanga Fire" in Ventura County is a good example of near zero property losses due to good defensible space clearance.

Fiscal Costs and benefits: The regulation will not result in a fiscal impact to the State. The California Department Forestry and Fire Protection (CAL FIRE) already conducts defensible space inspections. A component of these individual contacts with homeowners is an education outreach program to assist homeowner's in understanding their responsibilities as well as the benefit to them in complying with the statute and regulation.

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

The Board has considered several alternatives to improve the economic efficiency of the regulation to make it more cost effective for small business to use. Alternatives considered included varying minimum levels of vegetation removal.

These reduced levels of vegetation clearing would result in less cost to small businesses. These alternatives were rejected as the vegetation clearing standards were determined to provide inadequate fire safety standards and would not be in compliance with Public Resources Code Section 4291.

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.

1. Incline Village/ Crystal Bay Defensible Space Handbook. Adams, Gerald; Smith, Edward.
2. Understanding Fire Behavior, The Key to Effective Fuel Management. Alexander, Martin, PhD, RPF.
3. Aids to Determining Fuel Models for Estimating Fire Behavior. Anderson, Hal.
4. Fire Breaks Offer False Security. Symbolize Failure. Bonnicksen, Thomas, M.
5. Modifying WildFire Behavior- The Effectiveness of Fuel Treatments. Carey, Henry; Schumann, Martha.
6. Reducing Wildland Fire Threat to Homes: Where and How Much? Cohen, Jack D.
7. California Wildfire Landscaping: Creating Bands Of Protection With Plants, Managing Native Vegetation, Getting Help: Public and Private Resources. Gilmer, Maureen. 1994.
8. Fuel Reduction Guidelines. Minnich, Ralph. February 1996.
9. Fire Behavior Modeling Considerations. Sapsis, D. July 2005.
10. Canopy Fuel Treatment Standards for the Wild land-Urban Interface. Scott, Joe H.
11. 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. Stephens, Scott, L.
12. 2004 Wildfire Activity Statistics. California Department of Forestry and Fire Protection.
13. The Use of Shared Fuel Breaks in Landscape Fire Management. Forest Ecology and Management. Agree et al.
14. Senate Bill (SB) 1369; Changes to Public Resources Code (PRC) 4291 and Government Code (GC) 51182. Board of Supervisors, County of Madera.
15. California Codes Public Resources Code, Sections 4291-4299.

16. Homeowners Checklist: How to Make Your Home Fire Safe. California Department of Forestry and Fire Protection.
17. Defensible Space-Defensible Community Guidelines Summary. Nevada County Fire Plan. 2004.
18. Living With Fire: A Guide for the Homeowner. California Fire Safe Council. July, 2005.
19. Wildfire Risk to Assets. Fire and Resources Assessment Program, California Department of Forestry and Fire Protection. 2003.
20. Trends in Wildland Fire. Fire and Resources Assessment Program, California Department of Forestry and Fire Protection. 2003.
21. Senate Bill 1369; Changes to Public Resource Code 4291 and Government Code 51182. Department of Forestry and Fire Protection Memorandum. November, 2004.
22. Science Update, Reducing Fire Hazard: Balancing Cost and Outcomes. Pacific Northwest Research Station. June 2004.
23. Assessing Crown Fire Potential by Linking Models of Surface and Crown Fire Behavior. RMRS-RP-29. USDA Forest Service Rocky Mountain Experiment Station.
24. Science Basis for Changing Forest Structure to Modify Wildfire Behavior and Severity. GT: RMRS-GTR-120 USDA Forest Service Rocky Mountain Experiment Station. April, 2004.
25. The Effects of Thinning and Similar Stand Treatments on Fire Behavior in Western Forests. USDA Forest Service Pacific Northwest Research Station. September 1999.
26. Western National Forest: A Cohesive Strategy is Needed to Address Catastrophic Wildlife Threats. GAO/RCED-99-65. United States General Accounting Office.
27. Controlling Nature's Wrath. (compact disc). California Department of Forestry and Fire Protection. 2005.
28. San Diego County Multiple Species Conservation Program. County of San Diego. September 2005.
29. Housing Densities by Wildfire Responsibility Areas. Fire and Resources Assessment Program, California Department of Forestry and Fire Protection. April 2005.
30. Oregon Forestland-Urban Interface Fire Protection Act, Property Evaluation & Self-Certification Guide- For Deschutes County. Oregon Department of Forestry. August 2004.

31. Fire Safety and Brush Management for Private Property. City of San Diego. May, 2004.

32. Economic Impact Analysis Pursuant to GC § 11346.3. Prepared by Board Staff, January 2012.

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.

1 animals, or property, having a permanent roof that is supported by
2 walls or posts that connect to, or rest on the ground.

3
4 (c) Outbuilding. Buildings or structures that are less than one
5 hundred-twenty (120) square feet in size and not used for human
6 habitation. For purposes of this Section, an "Outbuilding" is not a
7 "Building or Structure" as defined in subsection (b) above.

8
9 **§ 1299.03. Requirements.**

10 Defensible space is required to be maintained at all times, whenever
11 flammable vegetative conditions exist. One hundred feet (100 ft.) of
12 defensible space clearance shall be maintained in two distinct "Zones"
13 as follows: "Zone 1" extends thirty feet (30 ft.) out from each
14 "Building or Structure," or to the property line, whichever comes
15 first; "Zone 2" extends from thirty feet (30 ft.) to one hundred feet
16 (100 ft.) from each "Building or Structure," but not beyond the
17 property line. The vegetation treatment requirements for Zone 1 are
18 more restrictive than for Zone 2, as provided in (a) and (b) below. A
19 detailed explanation of the requirements for both Zone 1 and Zone 2
20 can be viewed in the "Property Inspection Guide" found on the
21 Department of Forestry and Fire Protection (CAL FIRE) website at:
22 http://cdfdata.fire.ca.gov/fire_er/fpp_engineering_view?guide_id=8

23
24 (a) Zone 1 Requirements:
25

1 (1) Remove all dead or dying grass, plants, shrubs, trees,
2 branches, leaves, weeds, and pine needles from the Zone whether
3 such vegetation occurs in yard areas around the "Building or
4 Structure," on the roof or rain gutters of the "Building or
5 Structure," or any other location within the Zone.

6
7 (2) Remove dead tree or shrub branches that overhang roofs, below
8 or adjacent to windows, or which are adjacent to wall surfaces,
9 and keep all branches a minimum of ten feet (10 ft.) away from
10 chimney and stovepipe outlets.

11
12 (3) Relocate exposed firewood piles outside of Zone 1 unless they
13 are completely covered in a fire resistant material.

14
15 (4) Remove flammable vegetation and items that could catch fire
16 which are adjacent to or under combustible decks, balconies and
17 stairs.

18
19 (b) Zone 2 Requirements:

20
21 (1) In this zone create horizontal and vertical spacing among
22 shrubs and trees using the "Fuel Separation" method, the
23 "Continuous Tree Canopy" method or a combination of both to
24 achieve defensible space clearance requirements. Further guidance
25 regarding these methods is contained in the State Board of

1 Forestry and Fire Protection's, "General Guidelines for Creating
2 Defensible Space" (herein incorporated by reference) that may be
3 found on the Board's website at:
4 http://www.fire.ca.gov/CDFBOFDB/pdfs/Copyof4291finalguidelines9_2
5 9_06.pdf and the "Property Inspection Guide" referenced elsewhere
6 in this regulation.

7
8 (2) In both methods the following standards apply:

9
10 (A) All dead and dying surface and aerial fuels must be
11 removed with the exception of surface litter which, unless stated
12 otherwise, may be retained to a maximum depth of four inches (4
13 in.).

14
15 (B) Cut annual grasses and forbs down to a maximum height
16 of four inches (4 in.).

17
18 (C) All exposed wood piles must have a minimum of ten feet
19 (10 ft.) of clearance, down to bare mineral soil, in all
20 directions.

21
22 (c) For both Zones 1 and 2:

23
24 (1) "Outbuildings" and Liquid Propane Gas (LPG) storage tanks
25 shall have the following minimum clearance: ten feet (10 ft.) of

1 clearance to bare mineral soil on the ground and no flammable
2 vegetation for ten feet (10 ft.) in all other directions around
3 their exterior.

4
5 (2) Protect water quality. Do not clear vegetation near riparian
6 areas to bare soil and avoid the use of heavy equipment in and
7 around streams and seasonal drainages. Vegetation removal can
8 cause soil erosion, especially on steep slopes. Keep soil
9 disturbance to a minimum on steep slopes.

10
11 **§ 1299.04. Additional clearance**

12 (a) An insurance company that insures an occupied "Building or
13 Structure" may require additional clearance beyond that required under
14 § 1299 only if a fire expert designated by the Director (CAL FIRE Unit
15 Chief or their authorized designee), provides findings that the
16 clearing is necessary.

17
18 (b) Within the intent of the regulations, a fire expert designated
19 by the Director (CAL FIRE Unit Chief or their authorized designee),
20 may require more than one hundred feet (100 ft.) of defensible space.
21 A fire expert cannot require additional defensible space clearance
22 beyond the property line.

23
24 (c) Further guidance for implementation of this regulation is
25 contained in the "General Guidelines for Creating Defensible Space"

1 and the "Property Inspection Guide," both of which are referenced
2 elsewhere in this regulation.

3
4 **§ 1299.05. Alternative Methods**

5 The provisions of these regulations are not intended to exclude
6 alternative methods not specifically prescribed by these regulations.

7 A fire expert designated by the Director (CAL FIRE Unit Chief or their
8 authorized designee) may approve alternative practices which provide
9 for the same practical effects as those stated in the guidance
10 documents listed.

11
12 Note: Authority cited: Section 4102, 4291, 4125-4128, Public Resource
13 Code. Reference: 4291, Public Resource Code.

14
15 ~~The intent of this regulation is to provide guidance for~~
16 ~~implementation of Public Resources Code 4291(a) and (b), and minimize~~
17 ~~the spread of fire within a 100 foot zone around a building or~~
18 ~~structure.~~

19
20 ~~(a) A person that owns, leases, controls, operates, or maintains a~~
21 ~~building or structure in, upon, or adjoining any mountainous area,~~
22 ~~forest covered lands, brush covered lands, grass covered lands, or any~~
23 ~~land that is covered with flammable material, and is within State~~
24 ~~Responsibility Area, shall do the following:~~

1 ~~(1) Within 30 feet from each building or structure maintain a~~
2 ~~firebreak by removing and clearing away all flammable vegetation and~~
3 ~~other combustible growth pursuant to PRC [§ 4291\(a\)](#). Single specimens~~
4 ~~of trees or other vegetation may be retained provided they are well-~~
5 ~~spaced, well pruned, and create a condition that avoids spread of fire~~
6 ~~to other vegetation or to a building or structure.~~

7
8 ~~(2) Within the 30 feet to 100 feet zone (Reduced Fuel Zone) from each~~
9 ~~building or structure (or to the property line, whichever is nearer to~~
10 ~~the structure), provide a fuelbreak by disrupting the vertical and/or~~
11 ~~horizontal continuity of flammable and combustible vegetation with the~~
12 ~~goal of reducing fire intensity, inhibiting fire in the crowns of~~
13 ~~trees, reducing the rate of fire spread, and providing a safer~~
14 ~~environment for firefighters to suppress wildfire pursuant to PRC [§](#)~~
15 ~~[4291\(b\)](#).~~

16
17 ~~(b) Any vegetation fuels identified as a fire hazard by the fire~~
18 ~~inspection official of the authority having jurisdiction shall be~~
19 ~~removed or modified provided it is required by subsection (a)(1) &~~
20 ~~(a)(2).~~

21
22 ~~(c) Within the intent of the regulations, the fire inspection official~~
23 ~~of the authority having jurisdiction may approve alternative practices~~
24 ~~which provide for the same practical effects as the stated guidelines.~~

1 ~~(d) Guidance for implementation of this regulation is contained in the~~
2 ~~publication: "General Guidelines for Creating Defensible Space" as~~
3 ~~published by the Board of Forestry and Fire Protection by resolution~~
4 ~~adopted on February 8, 2006.~~

5
6 ~~Note: Authority cited: [Sections 4102, 4125 4128](#) and [4291, Public](#)~~
7 ~~[Resources Code](#). Reference: [Section 4291, Public Resources Code](#).~~