

**Before the Board of Supervisors  
County of Placer, State of California**

In the matter of:

Ord No. \_\_\_\_\_

**AN ORDINANCE AMENDING ARTICLE  
9.32 OF THE PLACER COUNTY CODE BY ADDING  
PART 4: HAZARDOUS VEGETATION ABATEMENT  
ON UNIMPROVED PARCELS (WITH APPENDIX)**

First Reading: Tuesday 23 Oct 2007  
Second Reading: Tuesday 06 Nov 2007  
APPROVED – vote: **5** Yeas to **0** Nays

The following ORDINANCE was duly passed by the Board of Supervisors of the County of Placer at a regular meeting held on November 6, 2007, by the following vote on roll call:

Ayes: Rockholm, Weygandt, Holmes, Uhler, and Kranz.

Noes:

Absent:

Signed and approved by me after its passage.

\_\_\_\_\_  
Chairman, Board of Supervisors

Attest:

Clerk of said Board \_\_\_\_\_

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**THE BOARD OF SUPERVISORS OF THE COUNTY OF PLACER, STATE OF CALIFORNIA, DOES  
HEREBY ORDAIN as follows:**

**Section 1:** That Article 9.32 of the Placer County Code is hereby amended by adding Part 4 entitled Hazardous Abatement of Unimproved Parcels and shall read as follows:

**ARTICLE 9.32 FIRE PREVENTION**

**Part 4:**

**9.32.120 TITLE.**

This chapter shall be known as, and may be cited or referred to as: "Hazardous Vegetation Abatement on Unimproved Parcels"

**9.32.130 FINDING.**

**A.** The Placer County BOS supports the improved parcel defensible space obligations found in Public Resources Code (PRC) 4291. PRC 4291 does not address hazardous vegetation abatement on unimproved parcels and the potential impact that hazardous vegetation on an unimproved parcel could have on an adjacent improved parcel. This ordinance extends and supplements State law to ensure defensible space activities are accomplished on unimproved parcels adjacent to improved parcels and

along roadways and fire access easements so that land owners benefit from the application of PRC 4291 on unimproved parcels.

**B.** This ordinance shall apply to:

1. Unimproved parcels adjacent to improved parcels, in those areas of unincorporated Placer County defined by the district boundaries for the North Tahoe Fire Protection District, the Alpine Springs County Water District, the Squaw Valley Public Services District and the Northstar Community Services District, where the owner/occupant of the improved parcel is unable to obtain the required defensible space clearances, as delineated in adopted County Codes and/or PRC 4291 and the current condition of fuels on the unimproved parcel is assessed by the Fire Warden as an extra hazardous fire condition. The owner of the unimproved parcel shall provide the fuel modifications to meet the defensible space requirements of the improved parcel. Fuel modifications shall meet the standards identified in Appendix A.
2. Unimproved parcels adjacent to roadways, in those areas of unincorporated Placer County defined by the district boundaries for the North Tahoe Fire Protection District, the Alpine Springs County Water District, the Squaw Valley Public Services District and the Northstar Community Services District, and determined by the County Fire Warden (or designee) to be necessary for the safe ingress and egress to the area served by the roadway or fire access easement and the current condition of fuels on the unimproved parcel is assessed by the Fire Warden as an extra hazardous fire condition. Fuel modifications shall meet the standards identified in Appendix A.
3. In the instances where the structures on the improved parcel are built after "*the effective date of this ordinance*", the owner/occupant of the improved parcel shall be responsible for 50% of the abatement cost on the unimproved parcel.

**C.** Placer County is located east of Sacramento and has forested landscape that stretches from the oak woodlands of the Sacramento Valley to the conifer forests of Lake Tahoe which includes 60 percent of Lake Tahoe's west shore. In all, there are 549,000 acres of forested land which includes two National Forests, several California State parks and numerous County and local parks.

**D.** The removal of hazardous vegetation in the area subject to this ordinance is recognized as an essential action a homeowner or property owner can take to increase the chances that homes, structures and other property will survive a wildfire. Regular property clearing is necessary to ensure adequate defensible space is achieved.

**E.** Placer County's defensible space inspection program is based on State law, PRC 4291. PRC 4291 provides required treatments for improved parcels upon, or adjoining any mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or any land that is covered with flammable material.

**F.** It is the purpose of this ordinance to establish a hazardous vegetation abatement program that provides a process to identify and abate hazardous vegetation on unimproved parcels. This ordinance will also help protect the lives and property of the citizens of Placer County while at the same time protecting rare and sensitive plants, animal species and the environment.

**G.** There is a need to broaden the scope of the current Placer County Fire Break Ordinance (9.32.070) to include requirements for abatement of hazardous vegetation on undeveloped property. This ordinance also defines abatement guidelines on improved parcels (Appendix A to this code).

**H.** There is a need to provide public education and alternative processes for vegetation management. This is to include the use of the County chipper, shaded fuel break development and maintenance and biomass utilization programs.

#### **9.32.140 DEFINITIONS.**

**A.** Hazardous Vegetation – Vegetation that is flammable and endangers the public safety by creating a fire hazard including but not limited to seasonal and recurrent weeds, stubble, brush, downed limbs, low hanging branches, dry leaves and tumbleweeds. For the purpose of enforcement, hazardous vegetation within 100' of a structure, as defined below, (or greater as determined by the Placer County Fire Warden or his/her designated representative) and along roadways that serve as primary ingress and egress routes, is a public nuisance.

**B. Fire Warden** – An Officer of the County of Placer whose duties are described in Chapter 2 of the Placer County Code.

**C. Improved Parcel** – A portion of land of any size, the area of which is determined by the Assessor’s maps and records and may be identified by an Assessor’s Parcel Number upon which a structure is located.

**D. Unimproved Parcel** – A portion of land of any size, the area of which is determined by the Assessor’s maps and records and may be identified by an Assessor’s Parcel Number upon which no structure is located.

**E. Structure** – Any dwelling, house, building or other type of flammable construction including but not limited to a wood fence attached to or near any other structure.

**F. PRC-4291** – A California Public Resources Code that defines the defensible space requirements on improved parcels.

**G. LE-38** – The standard “Notice of Fire Hazard Inspection” (Form LE-38A) form used by local fire agencies to document PRC 4291 findings.

**H. Biomass** - For the purposes of this ordinance, biomass is defined as the “Green Waste” material generated during the defensible space clearing project. This includes, grass, weeds, vegetation and tree trimmings.

**I. Placer Country Chipper Program.** The chipper program is a free service to residents of Placer County to assist in their fire hazard reduction efforts.

**9.32.150 DUTY TO ABATE HAZARDOUS VEGETATION.**

It shall be the duty of every owner, occupant, and person in control of any unimproved parcel of land or having an interest therein, which is located in the unincorporated territory of the County of Placer as that territory is determined and classified by the Board of Supervisors to abate there from, and from all sidewalks and roadways, except for those roads accepted into the County Maintained System, all combustible material and hazardous vegetation, that constitutes a fire hazard and public nuisance which may endanger or damage neighboring property or forestland.

**A.** The requirements of this section shall be satisfied if there is cleared property pursuant to a Notice to Abate by cutting brush, trimming trees, thinning trees, disking, mowing, plowing or any other method described in said Notice:

1. An area that extends to a minimum of 10' beyond the shoulder of the roadway, to a height of 15' along the boundary of an unimproved parcel; and/or

2. A one hundred (100) foot wide strip of land\* around flammable structure(s) located on an adjacent improved parcel (some or all of this clearance may be required on the unimproved parcel depending upon the location of the structure on the improved parcel).

\* **Note:** The Placer County Fire Warden, Local Fire Protection District Fire Chief, or his or her designee may require more than a one hundred (100) foot width (subject to CEQA Guidelines) or less than a one hundred (100) foot width for the protection of public health, safety or welfare or the environment. The Placer County Fire Warden, Local Fire Protection District Fire Chief, or his or her designee will determine appropriate clearance distances based upon a visual inspection of the parcel and shall consider all factors that place the property or adjoining structure(s) at risk from an approaching fire. These factors shall include local weather conditions, fuel type(s), topography, and the environment where the property or adjoining structure(s) is located.

Examples of the clearance requirements above are attached hereto as Appendix A for informational purposes only.

**B.** Where the parcel's terrain is such that it cannot be disked or mowed, the County Fire Warden, Local Fire Protection District Fire Chief, or his or her designee may require, or authorize, other means of hazardous vegetation removal.

### **9.32.160 ENFORCEMENT.**

The County Fire Warden is the primary enforcement authority for the requirements of this ordinance. The County Fire Warden as more broadly defined below, shall exhaust all informal steps to resolve the abatement of hazardous vegetation on unimproved parcels in advance of using the enforcement process below. He/she may delegate authority to subordinate Chief Officers and trained, professional prevention staff as his/her deputy in the performance of the duties enjoined upon him/her by this ordinance. In addition, each of the following officers

within the County of Placer is hereby designated to perform the same duties within the territory of the political subdivision which he/she serves (and whenever the term "County Fire Warden" is used hereinafter, the following officers are included in the meaning of such word, except that the County Fire Warden, himself/herself, shall coordinate all such officers in the performance of these duties): Chiefs or Chief Engineers of all Fire Protection Districts/Fire Departments within the unincorporated areas of the County, and their deputies; and such other officers as are designated by the Board of Supervisors or the County Fire Warden. The County Fire Warden has the following responsibilities and authorities in the enforcement and administration of the provisions of this chapter:

- A.** Plan and conduct PRC 4291 inspections within the limits of available resources;
- B.** Review with property owners found to be out of compliance with PRC 4291 the provisions of this code to support voluntary compliance with its provisions;
- C.** Provide notice in accordance with subsection 9.32.170;
- D.** Initiate administrative hearings in accordance with subsection 9.32.180, below;
- E.** The County Fire Warden or designee may enforce the required fuel modifications' by completing the required work and attaching the actual costs and administrative fee to the property tax of the unimproved parcel as a tax lien in accordance with subsection 9.32.210 below;
- F.** The County Fire Warden, or designee may at his/her discretion issue a notice of violation for a violation of this ordinance, in lieu of abating the unimproved parcel;
- G.** Carry out any other special enforcement programs initiated by ordinance, order or resolution of the board of supervisors, and any other responsibilities and authorities specified by this subchapter or this code;
- H.** Recover enforcement investigation and processing costs (Ord. 5373-B (part), 2005; Ord. 5126-B (part), 2001).

**9.32.170 ENFORCEMENT PROCESS.**

The County Fire Warden may identify by planned PRC 4291 inspection those parcels requiring abatement. The County Fire Warden shall send the owner of record for the unimproved parcel a "Notice to Abate". The "Notice to

Abate” shall outline the required fuel modifications and allow thirty (30) days for the work to be completed. The “Notice to Abate” shall also outline the appeals process.

After the thirty (30) day time period, the County Fire Warden may have the required fuel modifications completed and the cost of the abatement with administrative fee may be attached to the property tax as a lien in accordance with subsection 9.32.210 below.

Should the property owner appeal the “Notice to Abate” no action will be initiated until after the hearing body has made a determination of the appeal.

For parcels owned or controlled by public agencies, the local Fire Chief or his or her designee may provide a “Notice of Nuisance” and include the project area in the local Community Wildfire Protection Plan and request the hazardous vegetation be abated in accordance with the Healthy Forest Restoration Act of 2003 (H.R. 1904) or the State Public Resources Code.

**9.32.180 APPEALS PROCESS.**

Property owners wishing to appeal a “Notice to Abate” may do so in writing or in person to the Hazardous Vegetation Abatement Hearing Body.

**9.32.190 HAZARDOUS VEGETATION ABATEMENT HEARING BODY.**

The Hazardous Vegetation Abatement Hearing Body is established. The Hazardous Vegetation Hearing Body will be convened by the Fire Warden and will consist of a representative seated by the Eastern Placer County Fire Chiefs, and two “citizens at large” appointed by the Placer County Board of Supervisors.

The Hazardous Vegetation Abatement Hearing Body shall have the authority to amend, dismiss, or uphold the “Notice to Abate” with a majority vote.

**9.32.200. REMOVAL OF HAZARDOUS VEGETATION BY PRIVATE CONTRACTOR AND ESTABLISHMENT OF COSTS AND ADMINISTRATIVE FEE.**

If, at the end of the time allowed for compliance in the original “Notice to Abate”, or as extended in cases of appeal, or as specified by the Hearing Body, compliance has not been accomplished, the officer issuing the

Notice or the agency of which he is an officer, may order hazardous vegetation or other combustible material, to be removed by public officers or by employees of said agency, or may cause the removal to be carried out by a private contractor selected by the County Purchasing Agent in accordance with applicable statutes and in the manner and under the terms specified by the Board of Supervisors. The cost of such removal accompanied by a reasonable administrative charge may be imposed as an assessment in the County Tax Roll (9.32.210).

The costs so assessed shall be limited to the actual costs incurred by the County of Placer in enforcing abatement upon the parcels, including payment to the contractor, costs of investigation, boundary determination, measurement, clerical, personnel, consultant, and an administrative cost not to exceed \$500 on those parcels where such hazardous vegetation has not been removed by the property owner at his or her own expense.

**9.32.210 ABATEMENT PENALTIES AND COSTS.**

Upon expiration of the time limits established by subsection 9.32.170 of this section, the Fire Warden shall acquire jurisdiction to abate the nuisance, and may carry out the following as appropriate:

**A. Disposal of Materials.** Any materials abated by the Fire Warden may be disposed of as a part of the removal process to include, as appropriate, recycling or as a part of the County's biomass utilization program.

**B. Cost Accounting, Receipts and Notice of Assessment.** The Fire Warden will keep an itemized account of the costs of enforcing the provisions of this ordinance, and of the proceeds of the sale of any materials connected therewith. Upon completion of abatement, the Fire Warden shall prepare a notice to be served as provided in Section 17.62.090(A) and (B), specifying:

1. The work done (supported by before and after pictures);
2. An itemized account of the costs and receipts of performing the work;
3. An address, legal description, or other description sufficient to identify the premises;
4. The amount of the assessment proposed to be levied against the premises, or the amount to be refunded, if any, due to excess proceeds over the expenses;
5. The time and place where the Fire Warden will submit the account to the board of supervisors for confirmation. The time and place specified shall be no less than fifteen days after service of the notice;



6. A statement that the County Board of Supervisors (BOS) will hear and consider objections and protests to said account and proposed assessment or refund.

**C. Hearing on Account and Proposed Assessment.** At the time and place fixed in the notice, the County BOS will hear and consider the account and proposed assessment, together with objections and protests thereto. At the conclusion of the hearing, the County BOS may make such modifications and revisions of the proposed account and assessment as deemed just, and may order the account and proposed assessment confirmed or denied, in whole or in part, or as modified and revised. The determination of the County BOS as to all matters contained therein is final and conclusive.

**D. Notice of Lien.** Upon confirmation of an assessment by the County BOS, the Fire Warden shall notify the owners by certified mail, return receipt requested, of the amount of the pending lien confirmed by the County BOS, and advise them that they may pay the account in full within thirty days to the Placer County Fire Warden in order to avoid the lien being recorded against the property. If the lien amount is not paid by the date stated in the letter, the Fire Warden shall prepare and have recorded in the Office of the County Recorder of Placer County a notice of lien. The notice shall contain:

1. A legal description, address and/or other description sufficient to identify the premises;
2. A description of the proceeding under which the special assessment was made, including the order of the County BOS under this code confirming the assessment;
3. The amount of the assessment;
4. A claim of lien upon the described premises.

**E. Lien.** Upon the recordation of a notice of lien, the amount claimed shall constitute a lien upon the described premises, pursuant to Section 25845 of the California Government Code. Such lien shall be at parity with the liens of state and county taxes.

**F. Collection with Ordinary Taxes.** After recordation, the Notice of Lien shall be delivered to the county auditor, who will enter the amount of the lien on the assessment roll as a special assessment. Thereafter the amount set forth shall be collected at the same time and in the same manner as ordinary county taxes, and is subject to the same penalties and interest, and to the same procedures for foreclosure and

sale in case of delinquency, as are provided for ordinary county taxes; all laws applicable to the levy, collection and enforcement of county taxes are hereby made applicable to such assessment. (Ord. 5373-B (part), 2005; Ord. 5126-B (part), 2001)

**9.32.220 VIOLATIONS.**

Pursuant to Placer County Code Section 9.32.230, it shall be an infraction or misdemeanor for any person, natural or corporate, owning, possessing, occupying, or controlling any lands or premises to fail to perform the duty set forth in 9.32.150 of the ordinance, or to fail to comply with the requirements in the "Notice to Abate" as specified in 9.32.170 of this ordinance, or to interfere with the performance of the duties herein specified for any of the officers named in this ordinance or their deputies, or to refuse to allow any such officer or their deputies or employees, or approved private contractors, to enter upon any premises for the purpose of lawfully inspecting and/or as ordered, removing any hazardous vegetation and/or combustible material hereinbefore described as a public nuisance, or to interfere in any manner whatever with said officers or contractors in the work of a lawful inspection and ordered removal herein provided.

**9.32.230 PENALTIES FOR VIOLATION.**

Upon conviction, punishment shall be by a fine of not less than one hundred dollars (\$100.00) or more than on thousand dollars (\$1,000.00) and by imprisonment of not more than six (6) months, or both.

**9.32.240. AUTHORITY TO PROMULGATE REASONABLE RULES AND REGULATIONS.**

The Board of Supervisors hereby reserves its right to adopt reasonable rules, regulations, and resolutions consistent with this ordinance to enforce, interpret, and carry out the provisions of this ordinance. Such rules may vary among different areas within the County.

**9.32.250. EFFECTIVE DATE OF ORDINANCE.**

This ordinance shall take effect on February 1, 2008, for the areas defined as the North Tahoe Fire Protection District, Alpine Springs County Water District, Squaw Valley Public Service District and Northstar Community Services District and remain in effect through January 31, 2009 unless readopted by the County BOS.

**Section 2:** That the following Appendix A is hereby adopted and incorporated as a part of this ordinance, but shall not be codified. Appendix A shall be kept and maintained by the Office of Emergency Services in the County Executive Office.

## **Appendix A: Fuel Reduction Guidelines**

### **A. PURPOSE**

The purpose of these guidelines is to describe fuel reduction treatments that will result in compliance with Public Resources Code (PRC) 4291(a) and (b) and with regulation 14 CCR 1299, Defensible Space. These guidelines are necessary because of recent changes to PRC 4291 that expand the defensible space clearance requirement from 30 feet around a flammable structure to 100 feet. Defensible space is the area around a flammable structure where basic wildfire protection practices are implemented. The area is characterized by the establishment and maintenance of emergency vehicle access, emergency water reserves, street names and building identification, and fuel modification measures. The focus of these guidelines is on the fuel modification measures, meaning where vegetation is managed and maintained so that it reduces the spread and intensity of encroaching wildfires or escaping structure fires.

From a fire standpoint, the vegetation surrounding homes is fuel for a fire. Even the home itself is considered fuel. Research and experience have shown that fuel reduction around a structure increases the probability of a structure surviving a wildfire. Good defensible space allows firefighters to protect and save homes safely without unacceptable risk to their lives. Fuel reduction through vegetation management is fundamental to creating defensible space.

Fuel reduction standards (clearing requirements) to create adequate Defensible Space will be very different throughout Placer County because of the wide variation of terrain, climate conditions, and vegetation characteristics. Fire frequency and intensity of burning will vary greatly between Eastern and Western Placer County because of the differing climate and vegetation characteristics. While great variation in fuel management treatments for Defensible Space is found in the County, there are some common practices:

- Properties with greater fire hazards will require more clearing. Clearing requirements will be greater for those lands with steeper terrain, larger and denser fuels, fuels that are highly volatile, and in locations subject to frequent fires.

- Creation of Defensible Space through vegetation management usually means reducing the amount of fuel around the home, providing separation between fuels, and or reshaping retained fuels by trimming. Creation of Defensible Space can typically be done by removing fuels; removing lower limbs of trees; or reducing the height of the smaller fuels. **Fuel treatment practices that will comply with State Law 4291(b) include removing dead vegetation, separating fuels from 4 feet to 40 feet (depending on conditions), and pruning lower limbs.**
- In all cases, fuel reduction does not mean cutting down all trees and shrubs, or creating a bare ring of earth across the property. It does mean arranging the tree, shrubs and other fuels sources in a way that makes it difficult for fire to transfer from one fuel source to another.
- A homeowner's clearing responsibility is limited to 100 feet away from their building or to the property line, which ever is less, and limited to their land. Adjacent property owners on improved parcels are not required to clear beyond 100 feet from their structure, but are encouraged to do so to create appropriate defensible space on a community-wide basis. Adjacent property owners with unimproved parcels are required to clear their property in accordance with Placer County Code 9.32.130.
- Fuel reduction activities that remove trees may require permits from State or local agencies. For example, trees removed for fuel reduction that are used for commercial purposes require permits from Cal Fire.

The methods used to manage fuel can be important in the safe creation of Defensible space. Care should be taken with the use of equipment when creating your defensible space zone. Internal combustion engines must have spark arresters and metal cutting blades should be used with caution to prevent starting fires during periods of high fire danger. A metal blade striking a rock can create a spark and start a fire. This is a common cause of fires during summertime. Vegetation removal can also cause soil disturbance, soil erosion, re-growth of new vegetation, and introduction of non-native invasive plants. Always keep soil disturbance to a minimum, especially on steep slopes. Erosion control techniques such as minimizing use of heavy equipment, avoiding stream or gully crossings, use of mobile equipment during dry conditions, and covering exposed disturbed soil areas will help reduce soil erosion and plant re-growth.

## **B. DEFINITIONS:**

Fuel: Vegetative material, live or dead, which is combustible during normal summer weather. For the purposes of these guidelines, it does not include decks, woodpiles, trash, etc.

Aerial fuels: All live and dead vegetation in the forest canopy or above surface fuels, including tree branches, twigs and cones, snags, moss, and high brush. Examples include trees and large bushes.

Surface fuels: Loose surface litter on the soil surface, normally consisting of fallen leaves or needles, twigs, bark, cones, and small branches that have not yet decayed enough to lose their identity; also grasses, forbs, low and medium shrubs, tree seedlings, heavier branches and downed logs.

Reduced Fuel Zone: The area that extends out from 30 to 100 feet away from the building or structure.

Building or structure: Any structure used for support or shelter of any use or occupancy.

### **C. FUEL TREATMENT GENERAL GUIDELINES COMPLIANT WITH 14 CCR 1299 AND PRC 4291:**

The following fuel treatment guidelines comply with the requirements of 14 CCR 1299 and PRC 4291.

**All persons choosing the use of these guidelines to obtain compliance with CCR 1299 and PRC 4291 shall implement General Guidelines 1., 2., 3. and either 4a or 4b. as described below.**

#### **General Guidelines:**

1. Maintain a firebreak by removing and clearing away all flammable vegetation and other combustible growth within 30 feet of each building or structure, with certain exceptions pursuant to PRC §4291(a).

2. Dead and dying woody surface fuels and aerial fuels within Reduced Fuel Zone shall be removed.

Loose surface litter, normally consisting of fallen leaves or needles, twigs, bark, cones, and small branches, shall be permitted to a depth of 3 inches in height. This guideline is primarily intended to eliminate trees, bushes, shrubs and surface debris that are completely dead or with substantial amounts of dead branches or leaves/needles that would readily burn.

3. Down logs or stumps, when embedded in the soil, may be retained when isolated from other vegetation.

4. Within the Reduced Fuel Zone, one of the following fuel treatments (4a. or 4b.) shall be implemented. Properties with greater fire hazards will require greater clearing treatments. Combinations of the methods may be acceptable under §1299(c) as long as the intent of these guidelines is met.

#### **4a. Reduced Fuel Zone: Separation Between Fuels**

When using this guideline to obtain compliance with CCR 1299 and PRC 4291 within the Reduced Fuel Zone surrounding each structure, minimum clearance between fuels will range from 4 feet to 40 feet in all directions. Clearance should be in both the horizontal and vertical directions. The clearance distance between vegetation will depend on the slope, vegetation size, vegetation type (brush, grass, trees), and

other fuel characteristics (fuel compaction, chemical content etc). Properties with greater fire hazards will require greater clearing between fuels. For example, if your property is on steeper slopes or has larger sized vegetation, this justifies greater spacing between individual trees and bushes (see Plant Spacing Guidelines and Case Examples below). Grass generally should not exceed 4 inches in height. However, grass and other forbs may be maintained less than 18 inches in height above the ground when isolated from other fuels or where necessary to stabilize the soil and prevent erosion.

Clearance requirements include:

- Horizontal clearance between aerial fuels, such as the outside edge of the tree crowns or high brush.

Horizontal clearance helps stop the spread of fire from one fuel to the next.

- Vertical clearance between lower limbs of aerial fuels, and the nearest surface fuels and grass/weeds. Vertical clearance removes “ladder fuels” and helps prevent a fire from moving from the smaller fuels to the taller fuels.

### **Plant Spacing Guidelines**

Guidelines are designed to break the continuity of fuels and be used as a “rule of thumb” for achieving compliance with Regulation 14 CCR 1299.

#### **Minimum horizontal Space from edge of one tree canopy to the edge of the next**

##### **Trees:**

Slope	Spacing
0% to 20 %	= 10 feet
20% to 40%	= 20 feet
Greater than 40%	= 30 feet

#### **Minimum horizontal space between edges of shrub**

##### **Shrubs:**

Slope	Spacing
0% to 20 %	= 2 times the height of the shrub
20% to 40%	= 4 times the height of the shrub
Greater than 40%	= 6 times the height of the shrub

**Vertical Space: Minimum vertical space between top of shrub and bottom of lower tree branches:**

3 times the height of the shrub

**Case Example of Separation between Fuels: Sierra Nevada conifer forests**

Sierra Nevada mixed conifer forests are intermixed with rural housing and present a hazardous fire situation. The combination of dense vegetation, elevations with long fire seasons, and ample ignition sources related to human access and lighting, results in homes with high risk of wildfire damage. This example includes gentle slopes (less than 20%), large mature tree overstory and intermixed small to medium size brush (three to four feet in height).

Application of the guideline under 4a, would likely result in horizontal spacing between large trees of 10 feet; removal of many of the smaller trees to create vertical space between large trees and smaller trees and horizontal spacing between brush of six to eight feet (calculated by using 2 times the height of brush).

**Case Example of Separation between Fuels: Oak Woodlands**

Oak woodlands, the combination of oak trees and other hardwood tree species with a continuous grass ground cover, are found in much of Western Placer County. Wildfire in this setting is very common, with fire behavior dominated by rapid spread through burning grass. Given a setting of moderate slopes (between 20% and 40%), wide spacing between trees, and continuous dense grass, treatment of the grass is the primary fuel reduction concern. Application of the guideline would result in cutting grass to a maximum 4 inches in height and removing the clippings, with consideration of creating 20 feet spacing between trees.

**4b. Reduced Fuel Zone: Defensible Space with Continuous Tree Canopy**

A vegetation removal option is available for those wanting to retain a continuous stand of larger trees with no space between tree canopies while creating defensible space. For this guideline, within the Reduced Fuel Zone, spacing between aerial fuels is not required, such as in a stand of larger trees. In this situation

- remove all surface fuels greater than 4 inches in height;

- remove lower limbs of trees (“prune”) to at least 6 feet up to 15 feet (or the lower one third of branches for small trees). Properties with greater fire hazards, such as steeper slopes or more severe fire danger, will require pruning heights in the upper end of this range.

#### **D. Fuel Treatment General Guidelines for Roadways**

The guideline below applies to roadways determined by the County Fire Warden (or designee) to be necessary for the safe ingress and egress to the area served by the roadway or fire access easement.

Property owners shall maintain a reduced fuel zone extending 10 feet onto their property from their property line or from the shoulder of the road, whichever is greater. Guidelines 4 (a) or (b) above apply.