



Fire Chief
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Please Read This In Its Entirety

These **STANDARDS** apply in areas designated as **PRIORITY HAZARD ZONES**. They reflect careful research and study regarding the survival of structures in major wildland/urban interface fires such as the Oakland/Berkeley Hills Conflagration of 1991. Compliance with these standards will dramatically improve the probability of **YOUR HOME** surviving a fire.

Defensible Space Standards: (0-30 feet from structure)

1. Maintain a fuelbreak by removing and clearing away all flammable vegetation and other combustible growth within **30 feet** of each structure. Single specimens of trees or other vegetation may be retained provided they are well spaced, well pruned, and create a condition that avoids spread of fire to other vegetation or to a structure.

2. Dead and dying woody surface fuels and aerial fuels within the Reduced Fuel Zone shall be removed. Loose surface litter normally consists of fallen leaves or needles, twigs, bark, cones, and small branches, and is to be removed. 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 anywhere within **100 feet** from the structure, when embedded in the soil, may be retained when isolated from other vegetation. Occasional (approximately one per acre) standing dead trees (snags) that are well-spaced from other vegetation and which will not pose a threat to structures or to roadways/driveways may be retained.

4. Reduced Fuel Zone: (30-100 feet from structure)

In conjunction with General Guidelines 1., 2., and 3., above, minimum clearance between fuels surrounding each structure will range from **5 feet to 40 feet** *in all directions*, both horizontally and vertically. Clearance distances 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 separation between fuels. For example, properties on steep slopes having large vegetation will require greater spacing between individual trees and bushes (see Plant Spacing Guidelines below). Groups of vegetation (numerous plants growing together less than 10 feet in total foliage width) may be treated as a single plant. For example, three individual camellia plants growing together with a total foliage width of eight feet can be “grouped” and considered as one plant and spaced according to the Plant Spacing Guidelines in this document.

Plant spacing Guidelines

Vertical clearance between aerial fuels

-4 ft to 40 ft. depending on slope and vegetation size/type 10 ft. to 30 ft. depending on slope and vegetation type and size 4 ft. to 40 ft depending on slope and vegetation type and size

Horizontal clearance between aerial fuels

- 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 shorter fuels to the taller fuels.

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 tree to the next.

Weed Abatement

a) Parcels five acres or less in size:

Maintain all weeds at a height of **no more than 3 inches**. Parcels may require more than one abatement during the season due to the re-growth of weeds and other flammable vegetation

b) Parcels greater than five acres in size:

Shall be provided with **30-foot fuelbreaks and crossbreaks**, including 30-foot breaks around all structures. Crossbreaks should divide the parcel into approximately 5-acre sections (fuelbreaks and crossbreaks are a continuous strip of disced or dozed ground, following as closely as possible to the property line and along one side of all fences lines, ditches, and on top of all ridges). **Fence-lines may require hand-mowing/weed-eating to ensure completion of fuelbreak.** When terrain is too steep or rugged for a tractor, a hand-treated fuelbreak may be required.

c) Fuelbreaks along roadways are required as part of the property line. Road right-of-ways shall be cleared for a minimum of **10 feet** from the edge of black top and **13'6" vertically**.

d) Active pastureland shall be provided with **15-foot wide fuelbreaks and crossbreaks** if a sufficient number of animals are present to steadily reduce height of grass during the summer months to 3 inches or less by the end of September. If not active, a **30-foot width** is required for both fuelbreaks and crossbreaks.

e) Active cropland shall be provided with **15-foot fuelbreaks** or crossbreaks if the crop is to be harvested by mid-June. If later harvest, a **30 foot width** is required.

f) Orchards are to be maintained by complete abatement, including grass under the tree branches. This may require pruning of lower branches to allow equipment access.

g) Tree litter (eucalyptus leaves and bark, coniferous needles, etc.) shall be removed from the base of trees, tree stems, and limbs within 10' of the ground and maintained throughout the fire season.

DEFINITIONS

Defensible space: The area within the perimeter of a parcel where basic wildfire protection practices are implemented, providing the key point of defense from an approaching wildfire or escaping structure fire. 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.

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.

Structure or building: Any structure used for support or shelter of any use or occupancy. Example: Homes, multi-family residential, office and other commercial buildings

Flammable and combustible vegetation: Fuel vegetative material, live or dead, which is combustible during normal summer weather.

Fuels: Combustible materials, including vegetation, wood piles, combustible/flammable liquids, and buildings or structures

Homeowner: Any person who owns, leases, controls, operates, or maintains a structure in, upon, or adjoining any mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or any land that is covered with flammable material.

Ladder Fuels: Fuels that can carry a fire vertically between or within a fuel type.

Priority Hazard Zone (PHZ): An area where the threat from wildfire is more severe due to proximity to open space, topography, degree of slope, density of homes, amount of vegetation (both native and ornamental) emergency vehicle accessibility, and other conditions favorable to fast-moving and destructive fires.

Reduced Fuel Zone: The area that extends out from 30 to 100 feet away from the structure (or to the property line, whichever is nearer to the structure).

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.

Creation of defensible space through vegetation management means reducing the amount of fuel around the structures, providing separation between fuels, and or reshaping retained fuels by trimming. Defensible space can be created by removing dead vegetation, separating fuels, and pruning lower limbs.

In all cases, fuel reduction means 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. *It does not mean cutting down all trees and shrubs, or creating a bare ring of earth across the property.*

- A homeowner's clearing responsibility is limited to **100 feet** away from their structure or to the property line, **which ever is less**, and limited to their land. While individual property owners are not required to clear beyond 100 feet, groups of property owners are encouraged to extend clearances beyond the 100-foot requirement (where appropriate) in order to create communitywide defensible spaces.

Care must be taken with the use of equipment when creating your defensible space zone. Internal combustion engines must have an approved spark arresters and metal cutting blades (lawn mowers or weed trimmers) 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, a common cause of fires during summertime. Work early in the morning (before 10am) and late in the evening (after 7pm) to minimize the possibility of accidental ignition of vegetation.

Vegetation removal can also cause soil disturbance, soil erosion, regrowth of new vegetation, and introduce 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, using mobile equipment during dry conditions, and covering exposed disturbed soil areas, with wood chips or mulch, for example, will help reduce soil erosion and plant regrowth.

Areas near water (riparian areas), such as streams or ponds, are a particular concern for protection of water quality. To help protect water quality in riparian areas, provide a buffer zone by removing vegetation associated with water, avoid using heavy equipment, and do not clear vegetation to bare mineral soil.

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.