

Making and Keeping a Fire Safe Home Site

What do I have to do to comply with LACOFD Defensible Space Codes?

This series of guides offers advice and information so that the residents of Rolling Hills can bolster their safety during a wildfire. While no action can insure safety, the recommendations in this series will advance the chances damage and stress during a wildfire is reduced.



Vegetation management can reduce damage from wildfire

The body of this Guide to Brush Clearance Code Compliance covers where the vegetation management is to take place, and who is responsible for the management. It enumerates those actions to take; and details standards suggested for creating and maintaining defensible space, along emergency access ways and in easements.

This guide is one of a series of 5 that describe the steps recommended to create and maintain fire safe vegetation in Rolling Hills. Please also refer to the:

- How to Get the Work Done
- Creating Fire Safe Canyons
- Best Practices for Fuel Reduction
- Choosing Fuel Treatment Methods

Three Ways to Minimize Fire Damage

In order of decreasing effectiveness, there are three ways to minimize fire damage:

1. Reduce the amount of fuels available to burn;
2. Arrange the horizontal and vertical spacing of vegetation so that the fire cannot spread;
3. Reduce the flammability of fuels by increasing moisture in the current vegetation or by changing to a less flammable vegetation type.

This guide offers specific actions that reduce total fuel volume, re-arrange the fuels and reduce their flammability

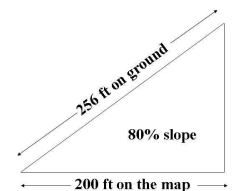
Areas Addressed

1. 200-ft from structure (defensible space)
2. Easements (both Roadside and Perimeter Easements)
3. Canyons

WITHIN 200-FT OF STRUCTURES

Because the entirety of Rolling Hills is in a Very High Fire Hazard Severity Zone, LACOFD requires creation and maintenance of 200-ft of defensible space - a space where firefighters can take a stand to stop a fire. The distance

is measured from a map, and not on the ground; this results in a much longer distance as measured on the ground.

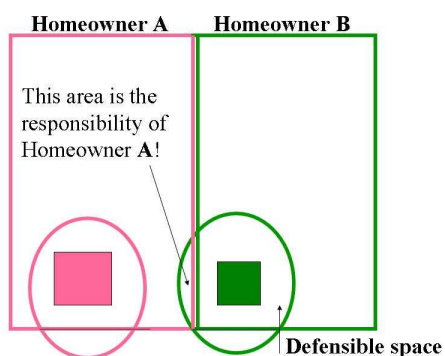


Slopes require wider distances be treated

The first 10 feet from the structure, then from 10-30 feet from the structure, are most important in determining the (potential) survival of the structure, in terms of wildfire risk. The primary cause of destruction of homes by wildfires is ignition from flying embers. These may originate in vegetation surrounding the home or from a more distant but powerful fire whose wind-driven embers drop into dry fuel on or around structures. Vegetation, including landscaping, can produce intense fire behavior that also can doom a structure. Reducing the volume of vegetation that is apt to burn decreases the fire intensity so the house is more likely to survive. Maintaining an “ignition-free zone” surrounding the structure increases its survivability.

Responsibility

The property owner is responsible for maintaining defensible space for a distance of 200-ft from a structure, even if it the neighbor’s structure. Stated differently, the property owner with the vegetation within 200-ft of a structure is responsible for maintain the vegetation in a fire-safe condition.



Each owner is responsible for the maintenance of all grass, shrubs and trees in this zone so that is in

compliance with local fire safe regulations.

Specifically owners should avoid the creation of a “ladder fuel situation” where a fire can climb from one vegetation layer to the next. Thus, the vertical distance between the ground and the lowest tree branches should be 3 times the height of any shrubs planted beneath the trees or 8 feet whichever is higher.

The Los Angeles County Fire Department is responsible for inspecting the property annually.

Planting Types and Location

At all times the property should be free of prohibited plants. New landscaping and that associated with new construction are to be approved by the Landscape Committee of RHCA before implementation. While an owner is free to propose planting any size plant and any density of planting owners are encouraged to plant fire resistant and native plants and to plant them in a location and density that is fire safe.

- Keep plant fuels away from windows and vents and under eaves. Mature shrubs should be no closer to windows or vents than twice the height of the shrub. Shrubs should be no higher than one-half the height to the eave.



Shrubs should be less than one-half the height to the eave

- In groups of large trees next to structures, easements or roadways, one or more may need to be removed.
- Do not plant shrubs under or within 6-ft of a tree canopy. Creation of ladder fire situations where a fire can climb from on vegetation layer to the next is prohibited. Size, density and location of plantings should be such that access for fire personnel and equipment is not compromised.



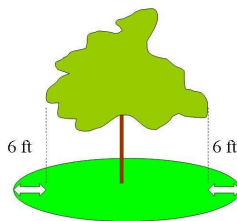
Well-spaced and well-pruned trees

- New or replacement plants should be fire resistant in nature.

Dead Material

All dead plants and dry vegetation should be removed to establish and maintain a defensible space. Dead material will be removed from the site or chipped and spread as mulch (not to exceed 6 inches depth).

1. Cut grass and weeds within 70 ft from the structure to a height of less than 4 inches yearly, before June 1. Mow from under the tree to 6ft from dripline of tree canopy.



Mow under trees for the entirety of 200-ft from

2. Re-cut the grass if late season rains promote grass growth after first cutting. Cutting of native grass and wildflowers may be delayed until seed set if they do not form a means of rapidly transmitting fire to any structures.
3. Dead material that drapes over ground cover should be removed yearly, before June 1. This includes leaves, bark and branches.
4. Remove from mature trees all vines, loose papery bark, all dead branches smaller than 3 inches in diameter, to 8 feet from the ground. If the entire tree is dead, remove the entire tree.
5. Remove all dead branches from shrubs and immature trees.
6. Remove dead material from roof, gutters, deck, patios, etc.

Pruning Trees

Trees and tall shrubs (e.g. sugar bush, toyon, myoporum oaks,) should be pruned to provide clearance of 3 times the height of the understory material or 8 feet whichever is higher. See Figure 1 on following page.

Limbs which are smaller than 3 inches in diameter should be pruned up to 8 feet off the ground, and in young trees, the lower one-third of the height of the tree. Thus, if a tree is 10 feet tall, the lower 3-4 feet will be pruned up and understory plant material kept to less than one foot in height. Then as it grows to 24 feet in height the eight foot distance from the ground can be achieved and the understory material is allowed to reach 2.5 feet in height.

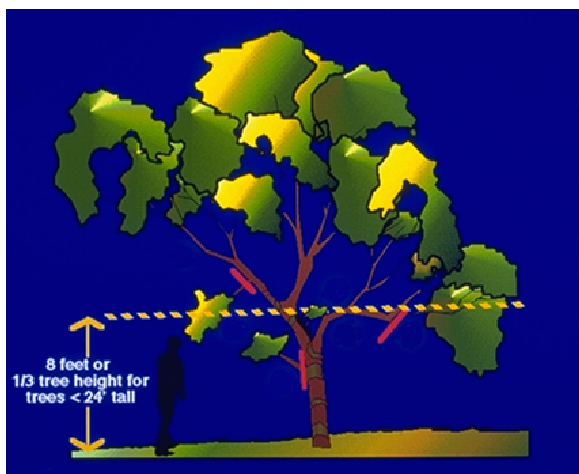


Figure 1 - Prune branches to a height of 8 ft above the ground. In young trees, prune branches on the lower one-third of the height of the tree. Do not disturb or thin the tree canopy. This promotes growth in the understory, which is more easily ignited.

Trees must be trimmed away from chimneys by at least 10 feet.



Trees and shrubs should be pruned so that the vents are 2 times the plant height.

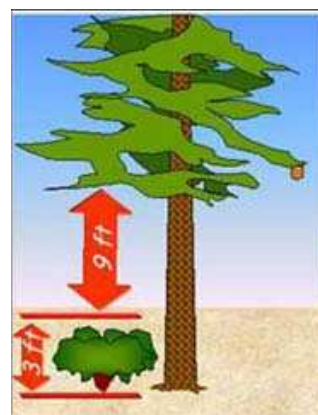
The tree canopy should not be disturbed or thinned except by a licensed arborist as improper trimming can promote growth of more flammable vegetation.

“Volunteer” pines, eucalyptus and pepper trees should be removed when they are shorter than 3 feet.

Pruning Shrubs

The goal for trimming shrubs is to maintain vertical and horizontal separation so that fire is unlikely to climb into the tree crowns. It is not desirable to remove all understory vegetation, but to trim back desirable species, or selectively remove flammable ones.

Shrubs under trees should generally be shorter than 18 in height. For example, myoporum shrubs that grow under eucalyptus or pine trees should be kept to an 18-inch height, which may be accomplished by cutting them to the ground periodically or trimming them slightly lower than 18 inches.



Alternatively, where shrubs are to be used for privacy

under trees, trees should be pruned of lower tree branches to a height 2.5 to 3 times the height of the shrub

In open areas without trees, a mosaic of shrubby patches may be developed to accomplish the fire protection, habitat protection and aesthetic goals. Shrubs or shrub patches must be separated from each other by at least two times (2X) the height of the shrub patch and must be separated from the edge of the tree canopy by at least six feet.



Spacing between shrubs and trees: Design groups of plants small enough to provide for open spaces between the trees and shrubs when they mature.

Desirable shrubs should be left for interest and diversity where trees occur, provided they are healthy. All dead branches should be removed from within any desirable shrubs.

For shrubs in the defensible space zone, the following actions will help meet fuel management goals:

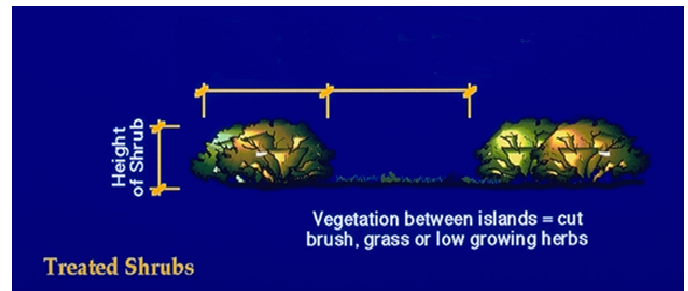
- Shorten shrubs to be no taller than the item to be screened. In some cases the shrubs can be shorter than the item to be screened, with equally good effect.
- Minimize the shrub's volume by trimming it to be thin and wispy. Reduce the shrub's canopy and outer dimensions.



Pruning shrubs of lower branches is effective here

- Consider replacing older, massive shrubs with smaller ones that can be kept wispy, thin, and free of dead fuel.
- Trees of short stature may also be a suitable replacement for taller mature shrubs.
- Prune from the edge of the building out, so that the distance between the shrub and wall is maximized. A distance of 5 feet is advisable.
- Shrubs and short trees serve better as screening material than larger trees, as the limbs of taller trees may need to be pruned.
- Design groups of plants small enough to provide horizontal separation between groups. This allows proper

maintenance and helps slow the spread of fire. The space between groups should be greater than three times the height of the tallest shrubs.



Special Areas

Special attention must be given to areas within 10 feet of a structure. In addition to fuel considerations, vegetation serves other vital purposes:

- Privacy – in front of windows, at entrances
- Screening and softening – large structural masses, heating/cooling devices, etc.
- Buffer – between roads and structures, between neighboring structures

When vegetation is located in small spaces, management requires greater attention to detail.

EASEMENTS

Perimeter Easements

Rolling Hills is unique in that it has easements that surround each parcel. The treatments within easements are different than the rest of the property; the roadsides require special attention.

Property owners are responsible for vegetation management in the easements. Within the perimeter easements no vegetation that requires irrigation can be installed. Similarly,

vegetation that blocks access between properties is prohibited.



This easement is free of trees and shrubs

The width of shrubs should be limited in the easements.

Trees should not block movement within the easement.

Roadsides

While the roadsides and even the roads themselves are privately owned, these routes provide a vital community function enabling fire response vehicles to enter and residents to leave. As such, they need to be kept in a fire-safe condition.



Well pruned and well spaced eucalyptus along roadside easement

Mow grass for 15 feet from both sides of the pavement of roads and driveways; a vertical clearance of at least 16.5 feet must be maintained for trees in this zone.

In the roadside area the required actions for the Defensible Space apply. Grasses must be mowed and surface fuels must be managed. Because roadside vegetation also serves as a privacy buffer between the road and structures, pruning must minimize fuel volume while still providing a thin screen.

Trees and shrubs must be pruned to be thin layers of wispy vegetation.

CANYONS

Canyon management is addressed in more detail in the Canyon Management Guide. Vegetation management beyond 200 feet from a structure is not required by codes regulating defensible space.

However, canyons do serve to accelerate fire spread to structures above, and unmanaged vegetation can pose a hazard that can overwhelm the best fire suppression forces.

The homeowner is responsible for any and all fuel management on their property, including the area in canyons.



Steep-sided canyons pose special hazards not directly regulated by defensible space code

Typically fire hazard reductions measures within the canyons focus on areas closer to structures (even though they are beyond 200 feet from a structure).