

## BEST PRACTICES FOR FUEL REDUCTION

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

- How to Get the Work Done
- Creating Fire Safe Canyons
- Making and Keeping a Fire Safe Home Site
- Choosing Fuel Treatment Methods

Several policies, laws, and regulations limit vegetation management actions, even though you may be trying to comply with the laws regarding fire hazard reduction. The following best practices provide a suitable level of fire safety in an environmentally sensitive manner. These best practices strive to balance fire protection needs with the protection of sensitive species and their habitats, water quality, and aesthetic values. Trained landscape professionals, biologists and fire department representatives will gladly help you determine plant material that should be retained, removed or modified. Refer to *The Process of Reducing Fire Hazards through Vegetation Management* to determine the experts to call on.

Four goals of managing vegetation are to:

1. Allow for a potential flame height to be no greater than two-feet tall within 30 feet from the structure,
2. To reduce fire intensity in the canyons,
3. Minimize the ability of a fire to burn in a tree's canopy, and
4. Provide for safe access and egress from the home.

The following are general fuel management best practices for Rolling Hills:

### **When to do the Work**

Fuel management actions should be timed and refined to take into consideration the bird breeding season in the spring, elevated fire conditions in the summer and erosion-related issues during the rainy season. In many cases trimming and thinning vegetation in the fall in preparation for the next summer is poses less conflict with wildlife habitat.

Los Angeles County Fire Department, Brush Clearance section is available for consultations regarding fuel treatments including timing and strategies.

Considerations may include:

- Prune eucalypts and pines from November to April to avoid attracting pests such as eucalyptus borer beetle or pitch pine canker.
- Mow annual grasses within 70-ft of structures and around trees before June 1.
- A second mowing treatment may be necessary after grasses cure in late spring (mid-May) to maintain the desired four-inch height.

- Delay cutting of native grass and wildflowers until after seed set (late spring to early summer), as long as these do not form a “wick” of fuel to the structure.
- The area to be mowed should be surveyed for ground-nesting birds. If found, the immediate 100’ area of the nest need not be mowed until nesting is complete, provided it does not form a means of rapidly transmitting fire to any structure
- Cut back chaparral and/or scrub once every 3-5 years to eliminate woody build-up of stems and dead materials.

## Vegetation Disposal

Compost, mulch, or dispose offsite all vegetation materials cut during fuel treatments. Cut material may either be chipped and spread so the chips are no deeper than 6 inches. If cut materials are not chipped they must be hauled from the site.



*Spread chips to be no more than 4 inches deep.*

## Bare Earth

At the completion of fuel treatments there should be no more than 50% of the site where bare earth is exposed. No one bare patch should be larger than 15 square feet. If you are working during the rainy season, spread native seed by hand on the exposed patches before the end of the day. If bare earth is exposed during the dry season, dirt will need to be covered shortly after October 1 with mulch, grass, or live vegetation. Keep in mind, however, native bees require bare dirt for nests, so keep some small patches open for this purpose.

If using livestock, the average grass height should be 2 inches.

## Haul Routes

Haul routes for removal of debris should be designated prior to the start of work. When the work is completed these routes should be repaired so that only small patches of bare earth is exposed, that rainwater runoff will not cause erosion, and that native vegetation or landscaping is restored.

## Large dead material

Large dead material, such as old logs, may remain on the site if isolated from small, “kindling-sized” dead branches. No large dead material may remain within the area 100 ft from the structure and under any tree canopy. The dead material will need to be distributed or removed when it rots to the point where it crumbles when kicked.

## FINESSES NEAR STRUCTURES

The areas within 10-ft of a structure call for special attention because vegetation can serve vital purposes that need to be balanced with fuel considerations.

Plants in these locations might also provide:

- Privacy – in front of windows or at entrances
- Screening of unsightly large elements such as, heating/cooling devices, or to soften structural features
- Buffering feature between roads and structures

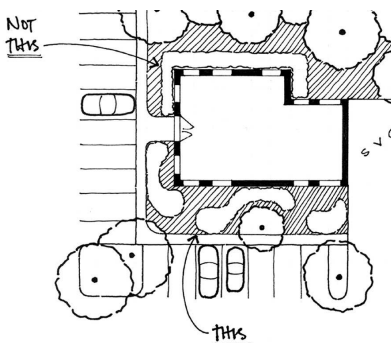
Because in some cases these vegetated spaces are constrained, fuel management has to be done with greater attention to detail.

## Shrub Treatments

For shrubs directly adjacent to structures, the following types of actions can meet fuel management goals:



*Shorten shrubs to be no taller than the item screened*



- Shorten shrubs to be no taller than the item to be screened. In some cases due to the angle of the sight lines, the shrubs can be shorter than the unsightly item and still provide effective screening.
- Minimize the shrub volume by removing portions of the interior of the plant. Reduce the shrub canopy and make the outer dimensions of the shrub smaller, while retaining the screening or other aesthetic properties
- With older, woody shrubs filled with dead material, consider replacing them with another plant species that can be kept wispy, thin, and free of dead fuel.
- Prune from the edge of the building out so that the distance between the shrub and wall is maximized. A distance of 5-ft is advisable.
- Keep plant fuels away from windows and vents. Distance from edge of mature shrub to window/vent: 2X height of mature shrub (unless kept pruned to a smaller size)

- Short-stature trees may also be a suitable replacement for mature, tall shrubs
- Choose plants with a mature size that fits in the planting space

### **Vegetation near Decks**

While decks are not common in Rolling Hills, vegetation near decks pose another area of potential conflict between fire safety: privacy and aesthetics.

The spacing between the deck and shrubs should be proportional to the size of the shrub. In general there should be a five-foot setback from the deck to any shrubs.

Shorter shrubs may be closer than 5-feet, but they may require annual treatment in order to be kept short.

### **Tree Treatments**

If your home is surrounded by several large pines or eucalyptus trees, consider removing one or more to preserve the remaining trees' health and the structure foundation's integrity. In some cases selection of the larger tree is advised, but not always; in other situations removal of the smaller tree is the better option.

When these trees are used for privacy, match the tree size with the item to be screened so they do not unnecessarily block views. Crown thinning is advisable for fire safety only when there is an avenue for fire to reach the tree crown. Shrubs and short trees serve better as screening material than larger trees



*The row of trees on the left are more fire-safe than the ones on the right because of the arrangement of the lower branches and the density of the trees. The trees on the left have most lower branches removed, and the density of the vegetation is less.*

### **Exotic Invasive Species**

Remove exotic species first. When using livestock, request they be fed weed-free feed for 3 days prior to being brought to the site.