

Illustration A: Guidelines for Pruning of trees and removal of live branches:

1. **Pruning of trees** shall consider the height and structure of the tree. No more than 20% of the foliage of tree limbs shall be removed at a time. This will ensure that smaller trees can encourage development of a strong and tapered trunk. As the trees grow they can be further limbed up, but live branches should comprise at least 2/3 of the tree's total height. The above guidelines fit within the recommendations of Tree Pruning by the USDA Forest Service which has been authored by some of its personnel.

2, Examples for Pruning Trees:

- a. A tree 10' high could be trimmed 20% from the ground up to a maximum of 2' from the ground to leave 8' of limbs and crown on the tree ($8'/10' = 80\%$ remainder)
- b. A tree 15' high would be trimmed to remove an additional 20% of the remaining branches:
 - i. If not previously pruned; limb up 3' to leave limbs and crown of 12' ($12'/15' = 80\%$ remainder)
 - ii. As an example: If previously pruned to 2' above ground level, remove 20% of 13' of limbs or 2.6' to leave limbs and crown of 10.4' ($10.4'/15' = 69\%$ remainder)
- c. A tree 30' high would be trimmed to remove an additional 20% of the remaining branches:
 - i. If not previously pruned; limb up 6' to leave limbs and crown of 24' ($24'/30' = 80\%$ remainder)
 - ii. As an Example: If previously pruned to 3', remove 20% of 27' of limbs or 5.4' to leave limbs and crown of 21.6' ($21.6'/30' = 72\%$ remainder)
 - iii. As an example: If previously pruned to 5', remove 20% of 25' of limbs or 5' to leave limbs and crown of 20' ($20'/30' = 67\%$ remainder)
- d. A tree 40' high would be trimmed to remove an additional 20% of the remaining branches:
 - i. If not previously pruned; limb up 8' to leave limbs and crown of 32' ($32'/40' = 80\%$ remainder)
 - ii. If previously pruned to "say 8'", limb up to 10' to leave limbs and crown of 30' ($30'/40' = 75\%$ remainder)
- e. At tree 50' high would be trimmed to remove an additional 20% of the remaining branches:
 - i. If not previously pruned; limb up 10' to leave limbs and crown of 40' ($40'/50' = 80\%$ remainder)
 - ii. If previously pruned to say" 8', limb up to 10' to leave limbs and crown of 40' ($40'/50' = 80\%$ remainder)
- f. The exception to the above would be that less pruning would be done on thinly branched trees

Illustration B: Guidelines for Pruning of Native and Other Live Plants:

1. Native plants such as Manzanita, Chaparral Pea, Toyon, Chamise, Ceanothus and Madrone:

Pruning of native plants will be limited to structural pruning, removal of dead branches and thinning out crowded conditions that threaten a healthy growth of the plants.

2. Pruning of Coyote Brush:

Treatment for pruning Coyote brush will vary based upon the circumstances encountered in the Fuel Reduction of Open Space.

a. Hillsides with erosion concerns or where there is no irrigation or limited other native species:

Younger plants can be left in place, if they are spaced adequately. Excessive stems with live growth, and which would be desirable to regrow for habitat or erosion purposes, can be cut to 3" above the ground. The objective is to space the plants, so they will be separated from the time of the work, until the next 3 year treatment for regrowth. It should be assumed that the plants will be 5' in width when they reach maturity. Cut plants to ground level, if the plant is dead, or if the plant is too close to a plant that is left in place (assume expected growth of the cut plant, or plants left in place, to be 5' in diameter when they reach maturity).

b. Firebreak Areas adjacent to Homes, existing as ladder fuels, and where other Native Plants are numerous:

Coyote Brush will be trimmed to ground level during treatments for Fuel Reduction or Regrowth.

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Illustration C: Priority Guidelines for selection of Native Plant Pruning:

The following is a condensed priority list for maintaining the presence of Native Plants in FGII, assuming the competing plants are both of an equal healthy state. See Attachment D for other Native Plants that may be encountered and have a need for preservation in the Project. Vendor should contract OSMA if they become aware of plants on Attachment D that are not prioritized below, and the Board or OSMA Project Leader will assist the Vendor in rearranging pruning priorities.

The following priorities will be followed unless a rarer or more desirable species is located in the area:

- a. Rare Species of Rincon Manzanita or Rincon Ceanothus native to the specific area considered to be endangered varieties
- b. Napa False Indigo, where it exists
- c. Native Oak (versus Shrub Oak) and Madrone will be treated with equal status
- d. Manzanita or Ceanothus are treated with equal status
- e. Toyon and Coffee Berry are treated with equal status
- f. Bay Trees
- g. Chaparral Pea
- h. Chamise or Native Buckwheat will be treated with equal status
- i. Sticky Monkey Flower
- j. Shrub Oak
- k. Coyote Bush – See Illustration B and/or RFP for Coyote Brush Guidelines

If one Native Plant is struggling and unhealthy, whereas the one nearly is healthy, this should be considered in the pruning selection process.

Illustration D: Douglas fir Strategy for Retention and Removal:

The Douglas fir is a very flammable tree as compared to an oak or Madrone, and it is also a very aggressive growing plant which can dominate an existing Firebreak or forest that has not been treated for fuel reduction. In certain areas the Firs have grown so thick that small and spindly trees number in the 100's and have become what is termed a Brush Fuel Model. In other instances the Firs are growing under Oaks, Madrone and Bay Trees that will have to compete with the Firs which also become a Fuel Ladder to the crown of these trees if they are not removed in fuel reduction programs.

In areas where excessive Douglas Firs exist, or where Firs compete with trees that are less of a fire hazard, then Firs less than 6" will be removed to reduce fuel matter for a fire. The Board of OSMA or the Project Director will advise the Vendor doing fuel reduction work of the trees to keep or leave in each Project or area. Larger Fir removal will be considered where there is a high concentration of trees with inadequate crown separation.

In other areas where vegetation is sparse and the soil is poor, the native Douglas fir can be beneficial and a good plant for both landscaping and erosion control purposes. However, the Firs should be managed to ensure dense stands are not allowed to develop without thinning between them and other trees, or larger shrubs, to ensure that there will be adequate crown separation when the trees reach a mature height.

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