# INTERIM GUIDELINES DEFINING OLD GROWTH STANDS: COAST REDWOOD (SAF 232) OF SOUTHERN MONTEREY COUNTY CALIFORNIA

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## 1. INTRODUCTION

Ecosystem Classification plot data were used to formulate an old growth stand descriptor for the coast redwood (Sequoia sempervirens ) cover type in central coastal California. This is an Interim Definition.

In southern Monterey County coast redwood forests occur along the coastal drainages usually within 150 feet of perennial or emphemeral streams. Redwood forest acreage between Big Sur and Salmon Creek is less than 15,000 acres. Holland (1986) terms this type Upland Redwood Forest and distinguishes it from the Alluvial Redwood Forest (82310) of northern California by it lower overall stature and tendency to mix with other tree species, particularly hardwoods (Lithocarpus densiflorus and Umbellularia californica).

## 2. METHODS

Data were derived entirely from Ecosystem Classification plots. A limited number of Forest Inventory plots were available for this type but they were not used in the analysis.

### A. ECOSYSTEM CLASSIFICATION PLOTS

Data collection is detailed in Borchert et al. 1988. Minimally disturbed sample stands were selected in a variety of environments in order to sample the variation in the target type. Homogeneous, late seral stage stands were well represented in the data set. A total of 108 Ecology Program plots were used in the analysis.

Each ecosystem classification plot included three variable radius points within the plot using a 80 area factor prism. One point was placed at the center and the other and two at the periphery of the plot. Attributes collected at each point included basal area, diameter at breast height, and height of the average tree in the tallest layer.

Data were collected entirely on Los Padres National Forest. The interim definition should not be used outside this geographic area.

## 3. LIMITATIONS OF THE ANALYSIS

The Coast Redwood/Common Manroot-Common Vetch//Gamboa-Sur (Borchert et al. 1988) ecological type was not included in the analysis because of the low occurrence of trees $\geq$ 40 inches diameter at breast height. Trees in this

ecological type occur on steep slopes near the ocean and are heavily pruned by aerisol salt spray. As a result of their low stature (average height 62 feet) and high density they periodically crown fire and regenerate primarily as resprouts. Thus, trees in this ET rarely reach 35 inches dbh and are likely not nearly the age of the large ($\geq$ 40 inches dbh) that occur fairly regularly in other coast redwood ETs.

Old growth definition in this forest type is based entirely on the basal area and abundance of trees larger than 40 inches dbh which are also the oldest trees in the forest. A final definition must include the quantification of other attributes such as tree layering, downed woody material, snag density, crown condition etc.

## 4. DATA ANALYSIS PROCEDURES

Counts of tree $\geq$ 40" dbh were averaged for each stand in the other 5 ETs. Basal area was calculated for these trees and density/acre calcualted from basal area using a conversion factor of 9.17. Typical ranges are the mean $\pm$ 2 standard errors.

## 5. LIMITATIONS

These data are designed to be used to identify and evaluate old growth stands in coast redwood in the southern part of its range. This is an interim definition. When field testing the interim definition, common sense should be applied. Field testing may result in changes in the minimums.

## 6. OLD GROWTH ATTRIBUTES

The following attributes comprise a standard summary required by the National Old Growth Task Group (2410 letter, 11/21/90, Enclosure 2):

I. Live Trees in Main Canopy; Trees per Acre:
Stand Basal Area: Mean = 560; standard dev. = 192; typical range= 450-650.
Average total tree canopy cover = 100. Typical range= 85-105%.

a. >40"dbh: minimum= 15 trees per acre

Typical range: 25-45 trees per acre >=40" dbh

Basal area of >40" trees: mean= 300; sd= 180; typical range= 260-340

II. Variation in Tree Diameters

Some variation in tree diameters is acceptable. About 50% of the basal area stocking in the stand should be represented by large trees (>40" dbh).

III. Dead Trees

A. Standing snags per acre: No data.

B. Down pieces per acre: No data.

IV. Tree Decadence (Flattening tops, spike tops, bole or root decay, large fire scars)

No data.

V. Number of Tree Canopies

Greater than or equal to 1.

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REFERENCES

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