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Timber Resource Statistics for the Central Coast Resource Area of California

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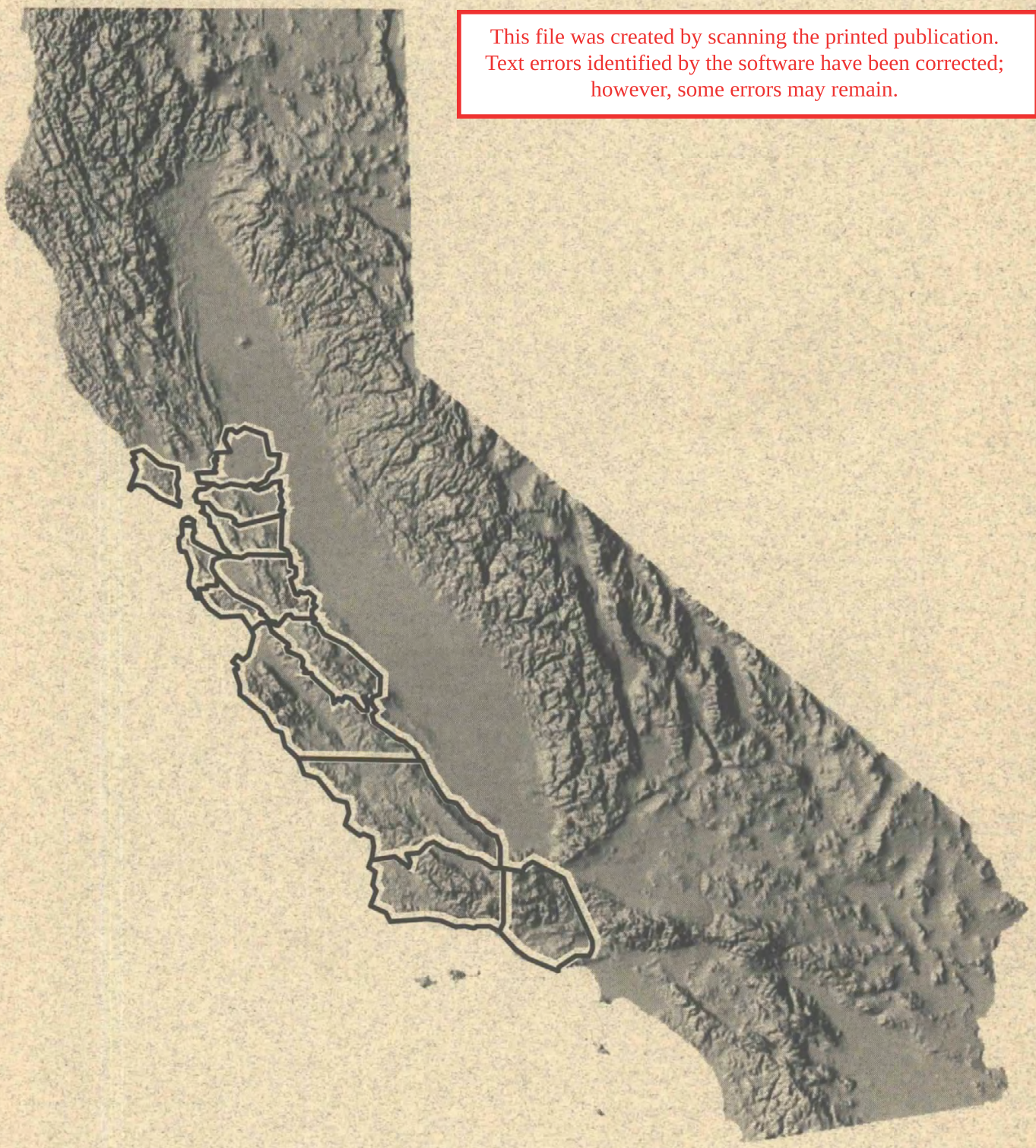

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Cover Map

The image on the cover was created from the North American 30 arc-second Digital Elevation Model obtained from the EROS Data Center, in Sioux Falls, South Dakota.

Abstract

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This report is a summary of timber resource statistics for the Central Coast Resource Area of California, which includes Alameda, Contra Costa, Marin, Monterey, San Benito, San Francisco, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Solano, and Ventura Counties. Data were collected as part of a statewide multiresource inventory. The inventory sampled private and public lands except reserved areas and National Forests. The National Forest System provided data from regional inventories of the Los Padres National Forest. Area information for parks and other reserves was obtained directly from the organizations managing these areas. Statistical tables summarize all ownerships and provide estimates of land area, timber volume, growth, mortality, and harvest. Estimates of periodic change of timberland area and timber volume are presented for all ownerships outside National Forests.

Keywords: Forest surveys, forest inventory, statistics (forest), timber resources, resources (forest), periodic change, trends, central coast, Alameda County, Contra Costa County, Marin County, Monterey County, San Benito County, San Francisco County, San Luis Obispo County, San Mateo County, Santa Barbara County, Santa Clara County, Santa Cruz County, Solano County, Ventura County, California.

Summary

The Central Coast Resource Area of California includes about 11.2 million acres of land in Alameda, Contra Costa, Marin, Monterey, San Benito, San Francisco, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Solano, and Ventura Counties. About 44 percent of this land is forest land, with only 3 percent or an estimated 307,000 acres in timberland. The majority of timberland (about 80 percent) is privately owned, primarily by owners other than forest industry. Redwood, Douglas-fir, ponderosa pine, tanoak, and coast live oak forest types predominate in the Central Coast Resource Area. Most of the 1.9 billion cubic feet of volume is in softwood forest types growing in stands of sawtimber-sized trees. Softwood species comprise 74 percent of the total volume, with redwood being the most prevalent species across all ownerships. An analysis of volume distribution among diameter classes shows that most softwood volume is in trees larger than 21 inches in diam-eter at breast height (d.b.h.), and most of the hardwood volume is in trees smaller than 21 inches in d.b.h. Outside the National Forest, the majority of volume is found in even-aged stands less than 100 years old; within the National Forest, most stands exceed 200 years. Estimates of change between 1984 and 1994 are available for land outside National Forests. Data from both points in time were compiled by using current methods and procedures, to provide a common basis for evaluating periodic change (this is more accurate than using previously published data for 1984 as a comparison for change). An analysis of change indicates that timberland area has decreased by 36,000 acres, with an associated volume loss of 242 million cubic feet. This area has been reclassified to a reserved status, as parks and open space. During the 1984-94 period, timberland area (outside the National Forest) occupied by softwood forest types stayed about the same, but the area of hardwood types decreased by almost 27 thousand acres. Overall, total growing-stock volume in-creased by 44 million cubic feet (2.5 percent), with softwood volume increasing by 95 million cubic feet and hardwoods decreasing by 51 million cubic feet for the period. These changes in volume were due to growth, mortality, and harvest combined with the loss in timberland area mentioned above.

Preface

Forest Inventory and Analysis (FIA) is a nationwide project of the USDA Forest Service authorized by the Forest and Rangeland Renewable Resources Research Act of 1978. Work units, located at Forest Service research and experiment stations, conduct forest resource inventories throughout the 50 States. The Pacific Resource Inventory, Monitoring, and Evaluation (PRIME) Program of the Pacific Northwest Research Station at Portland, Oregon, is responsible for forest inventories in Alaska, California, Hawaii, Oregon, and Washington.

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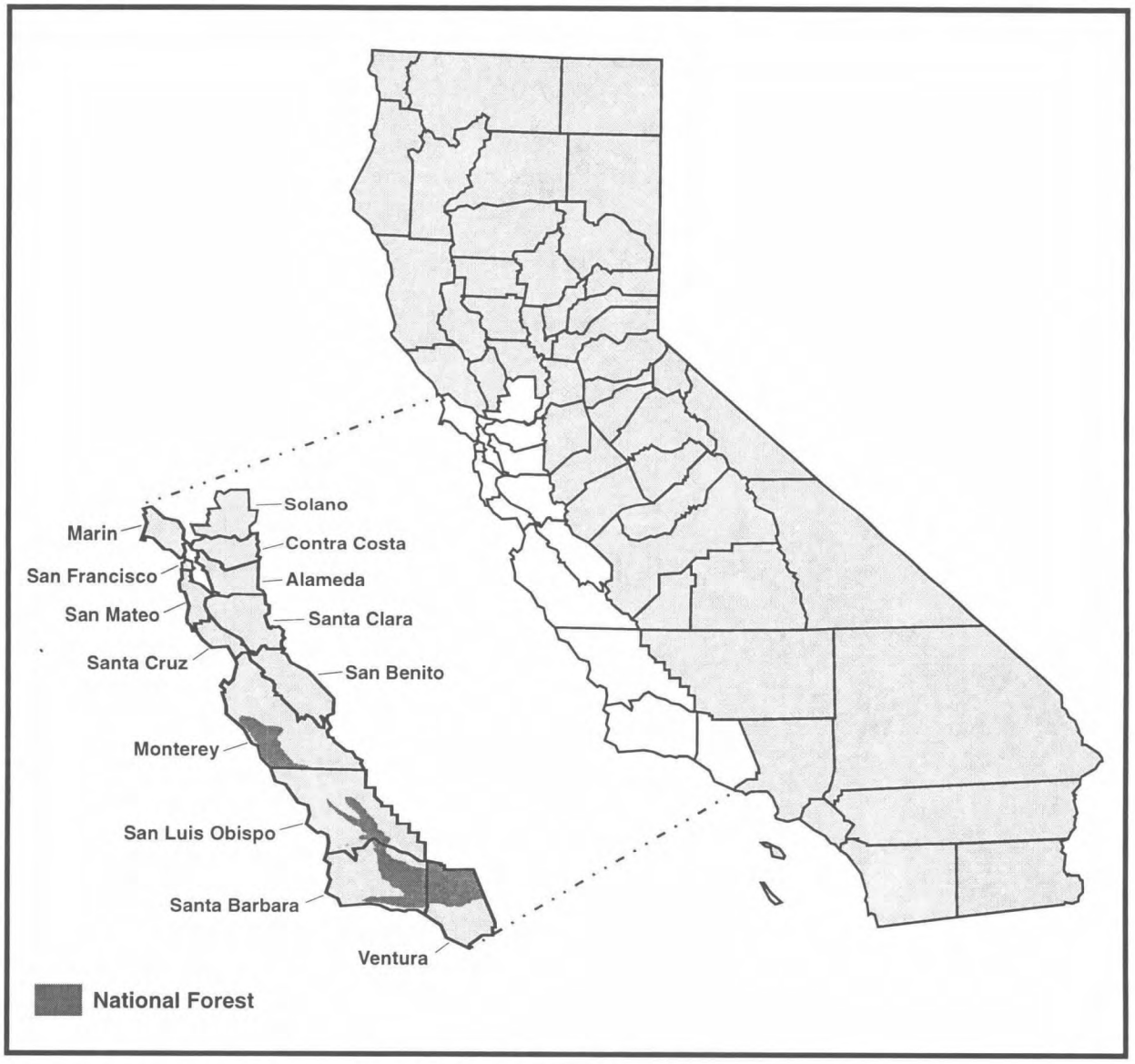

Figure 1--Counties in the Central Coast Resource Area of California.

Introduction

A multiresource inventory was conducted in California's forests from 1991 to 1994. The inventory area consisted of all land except reserved areas and public land administered by the National Forest System. Information about parks and other reserved areas was obtained directly from the organizations managing these areas. This report summarizes forest area and timber volume in the 13 counties of the Central Coast Resource Area (fig. 1). Statistical tables include data supplied by the National Forest System for both area and volume and provide a complete assessment of current timber resources across all ownerships. Other resources sampled in the inventory, but not included in this report, are oak woodlands, chaparral, standing snags, coarse woody debris, shrubs, and herbs.

The Pacific Resource Inventory, Monitoring, and Evaluation (PRIME) Program in the Pacific Northwest Research Station has been responsible for doing forest inventories on land outside the National Forest in California since 1966. The earliest inventory carried out by the Pacific Northwest Research Station for the Central Coast was reported by Oswald (1979) and Bolsinger (1980). A second forest inventory was completed in 1984 (Colclasure and others 1986). The most recent inventory of the Central Coast Resource Area was conducted from 1991 to 1994. Earlier inventories were conducted by the Pacific Southwest Forest and Range Experiment Station in the 1930s, in 1953, and in 1963.

This report incorporates data supplied by the National Forest System for the Los Padres National Forest, administered by the Pacific Southwest Region (Region 5) and the only National Forest in this resource area. National Forest area that falls within the 13 Central Coast counties is included in this report.

The 36 statistical tables that follow provide current estimates of land area, timber volume, net annual growth and mortality, and harvest. Tables 30 through 34 provide estimates of change in timberland area and volume between the 1981-84 inventory and the 1991-94 inventory for land outside the National Forest. For consistency, data from the remeasured portions of the 1981-84 inventory plots were recompiled by using current procedures, definitions, standards, and expansion factors. Tables 30 through 34 can be used to make comparisons between inventories on land outside the National Forest.

Inventory Procedures

Land Outside the National Forest

The Central Coast Resource Area was inventoried with a double sampling for stratification design (Cochran 1977) on permanent, systematic grids. These grids produce an even geographic distribution of field and photo plots across the State and maintain an equal sampling intensity across counties. Photo plots for the primary sample were chosen by randomly selecting a point inside each square of the grid.

In the Central Coast Resource Area, the primary sample was a grid of 14,884 photo plots established during the 1981-84 inventory and updated in 1991 for changes in ownership. The primary sample included 606 timberland photo plots that were examined in 1981 to classify the forest stand at the grid location.

The secondary sample consisted of 916 forest and nonforest field plot locations established in the previous inventory and reclassified or remeasured in 1991-94. Each plot was a cluster of five subplots and subsampled about every 16th photo plot on the primary grid. This ratio of 1 field plot to 16 photo plots provides enough plots to meet the required sampling precision for estimates of forest area and volume. All 23 timberland plot locations were remeasured.

Permanent five-subplot field plots were installed at timberland grid locations during the 1981-84 inventory. At that time, all five subplots sampled a single homogeneous condition; if necessary, subplots were moved into the condition found at the center of the plot. Variable-radius sampling was used to select trees 7 to 36 inches in diameter at breast height (d.b.h.) on a subplot. Trees of all other diameters were selected with fixed-radius plots.

In 1991, the field plot design was modified to remove the potential for bias inherent in the 1981-84 procedures. The term "condition class" was defined for the modified design to identify different situations that could occur on a plot. A condition class or "condition" refers to an area with a distinct land class (for example, timberland, oak woodland, nonforest) or a distinct vegetative condition (for example, forest type, stand structure). The modified design requires that all subplots in the cluster be placed in fixed locations on the plot, regardless of the number of conditions found. If a plot straddled two or more conditions, the boundary around each condition was mapped and the conditions were sampled. Tree selection procedures were identical to those used in the previous inventory. Data for each condition on a plot were kept separate and compiled as "condition class plots." For the 916 field plots in the 1991-94 inventory, we sampled 1,381 condition classes, of which 33 were timberland, 277 were oak-woodland, 246 were chaparral, and the rest were nonforest.

Current estimates of area for timberland, other forest, and nonforest land are based on all 1,381 condition classes. Tree data on timberland conditions are used to estimate timber volume, growth, mortality, and removals; and to determine stand characteristics such as forest type, stand size, and stand age by condition class.

Estimates of change in area and volume were compiled from data on subplots installed in 1981-84 that were in the same location in 1991-94. Subplots that were offset slightly in the previous inventory to ensure that the entire subplot fell in one condition also were remeasured to analyze for change. All other subplots that were moved by more than 56 feet in the 1981-84 inventory were not remeasured.

For more information about field, photo interpretation, or technical procedures (including volume and stocking equations, design discussion, and specific methods used in the compilation of data), see appendix A.

National Forest Land

The Pacific Southwest Region of the Forest Service (Region 5) supplied the most recent inventory data available for the Los Padres National Forest. Because the data were from an older inventory, the information was updated by the Region to 1992. Details of National Forest inventories may be obtained from the timber management staff at the Regional office (see appendix B).

The following is a brief description of current inventory procedures used by Region 5. Individual inventories were conducted within the administrative boundaries of the National Forest. Satellite imagery and aerial photography were used to create a map of the vegetation types (conifer, hardwood, shrub, or grassland) by using the CALVEG classification system (U.S. Department of Agriculture 1981). Information obtained from the vegetation map was used to develop strata, which were identified by vegetation type, stand size, and stand density. Field plots were established on a permanent, systematic grid extending across the entire National Forest. Plots were pin pricked on orthophotos and contain five subplots. Each subplot included a

variable-radius plot to sample intermediate-sized trees and two fixed-radius circular plots to sample the smallest and largest trees. Plots were linked to the vegetation maps developed for the Forest and were stratified based on characteristics of each stratum. Area estimates were calculated from strata delineated on maps, and volume per acre was estimated from tree measurements on field plots within a stratum. Total volume estimates were calculated by expanding the stratum volume per acre by the area in that stratum.

Changes in Definitions and Techniques

In 1991-94, some changes were made in the definitions and techniques used in the 1981-84 inventory. The most notable differences are adoption of new area figures from the latest Bureau of Census report (U.S. Department of Commerce 1990), a modified field plot design, and a different method to classify stand characteristics, such as forest type, on timberland plots.

Land and Water Area Updated

The Bureau of Census compiles and publishes the area of land and water in the United States every 10 years. These area figures, available by state and county, are accepted and used by PRIME as the gross number of acres to be inventoried in each county. The previous inventory was based on 1980 census data, and the current inventory uses 1990 census figures. Raster-scanned U.S. Geological Survey topographic maps and a geographic information system are now used by the Bureau of Census to identify water bodies and landforms and to determine the size of much smaller areas than was possible previously. As a result, the definition of inland water was changed to reflect the finer resolution: streams with a minimum width of 200 feet are now recognized, compared to 660 feet in 1980; and small water bodies are now at least 4.5 acres in size, compared to 40 acres in the past.

The new numbers and change in definitions caused a shift in gross area between land and water in California and affected the distribution of area among the counties. According to the 1990 census, total land area decreased by 16,852 acres in the Central Coast Resource Area. This has a direct impact on the size of the inventory area and the expansion factors (acres) associated with each plot.

Modified Field Plot Design

The field plot design adopted for the current inventory of California had a significant impact on the plot layout, the compilation of data, and the development of data for periodic change analysis. In the new plot layout, all five subplots were established in fixed positions and all conditions on a plot were sampled. New subplots were installed in 1991-94 to replace previously moved subplots from the 1981-84 inventory. Only data collected on subplots in the fixed layout pattern of the modified design were included in estimates of current area and volume for 1991-94.

The 1981-84 design forced all subplots to be laid out in the condition found at the center of the first subplot. Because the current design samples all conditions on a plot, more data are available on conditions that might not have been sampled as thoroughly in the previous inventory. Less prevalent conditions, such as riparian areas, are not found as often at the plot center because of the small land area occupied. The current design samples these areas as they are encountered on a plot and should improve the estimates for these areas.

Plots that cross condition class boundaries contain information pertinent to each condition. When multiple conditions exist on a plot, all data in one condition are processed together. The basic sampling unit is no longer the plot, it is now the condition class. This can impact the amount of information present to classify stand characteristics, such as forest type, stand-size, and stand age.

Although five-subplot plots were established during both inventories, the locations may not coincide, thereby affecting the number of subplots available for remeasurement. Subplots installed in the previous inventory that were moved more than 56 feet were not remeasured in 1991-94. Because of this, remeasured plots can contain less than five subplots or include less than 100 percent of the plot area.

An outcome of the modified design is two databases, each containing different sets of condition class plots; one set contains all conditions and is used to produce current estimates of area and volume for 1991-94, and the second set contains only remeasured subplots and conditions on a plot and is used to produce estimates of change between the two inventories. Because remeasured subplots are in the same condition at both inventories, each plot in the "change" database contains only one condition, and its expansion factor may differ from that used in the current database. Thus, current inventory estimates from the "change" database differ slightly from those based on the new sample--the result of sampling error. The current database is more reliable for estimates of the current status of resources in 1991-94 but is less reliable for estimating periodic change, because it includes data not sampled in the earlier inventory.

Classifying Stand Characteristics on Timberland Plots

Stand characteristics such as forest type, stand-size, and stand age are calculated from tree data tallied for a plot. In the previous inventory, these characteristics were assigned by computing the relative proportion of basal area among trees of different species, d.b.h., or age. In the current inventory, a technique was adopted that compares the individual contribution of each tree to the density of a normal stand (MacLean 1979). This method is based on area occupancy and reflects the ability of a tree to use the limited resources of a site (light, water, nutrients). Species with large crowns, for example, can intercept more light and water and will occupy a larger portion of the site. Stocking equations were developed by species from the relation between tree diameter and the average growing space occupied by trees in normal stands. Stocking estimates were adjusted for tree clumping, quadratic mean diameter, crown position, and stockability of the site. In 1991-94, stocking estimates were used to determine the stand characteristics of a plot, which in some cases were different from characteristics developed with the basal area method used in the past. For example, hardwood species with broad crowns generally occupy a greater proportion of a site and receive larger stocking estimates with the current procedure. As a result, stand classifications changed for some plots compared to the 1981-84 inventory, simply owing to the change in procedure.

Analysis of Change Between Inventories on Lands Outside the National Forest

Changes in forest resources based on comparisons of statistics from this report with those published for the 1981-84 inventory of the Central Coast Resource Area (Colclasure and others 1986) are obscured by definition or the procedural changes discussed above. Instead, the reader should use summaries of recompiled 1981-84 data that take into account the technical changes made in the 1991-94 inventory. Those summaries are provided in tables 30 to 34, which have been developed from remeasured plots on land outside the National Forest and include recompiled 1981-84 data. An analysis of data in these tables will provide reliable estimates of area and

volume at both inventories. Note that tables displaying periodic change do not include National Forest data, because data from earlier inventories were not recompiled to reflect real change over the period.

Tables 30, 31, and 32 show changes in timberland area and volume on ownerships other than the National Forest in the period between the 1981-84 and 1991-94 inventories. Table 33 displays the change in area and volume by forest type, and table 34 presents volume by species for both inventories. All estimates were computed directly from the sample-based inventory data and are subject to sampling error. Other tables of recompiled 1981-84 data for land outside the National Forest are available by request.

Reliability of Inventory Data

Standard errors for the estimated area, cubic-foot volume, and net annual cubic-foot growth and mortality for the Central Coast Resource Area, outside the National Forest, are shown below. Confidence intervals can be calculated with this information.

Confidence intervals are quantitative expressions of the variability of the estimates for area and volume. The first tabulation below indicates, for instance, a two-in-three (68-percent, one standard error) chance that the timberland area estimate for all non-National Forest owners (252 thousand acres) is within the range of 227 to 277 thousand acres.

The sample design in this inventory provides the highest precision when estimates are aggregated for the entire Central Coast Resource Area. As the sample is divided into smaller units, the confidence interval gets broader. For example, estimates of area by forest type for one county are less precise than the estimate of forest type for the whole resource area.

Standard errors for estimates of land area, by land class and owner class outside the National Forest, are displayed below:

Land class	Other public	Forest industry	Other private	All owners
	Thousand acres (± standard error)			
Timberland	7 ± 6	22 ± 16	223 ± 25	252 ± 25
Other forest	467 ± 37	64 ± 8	2,204 ± 68	2,734 ± 67
Nonforest	261 ± 32	56 ± 12	3,666 ± 67	3,983 ± 64

Standard errors for estimates of land area and growing-stock volume, by county, outside the National Forest, are displayed below:

County	Timberland area	Softwood species volume	Hardwood species volume	Total volume
	Thousand acres (± standard error)	*------Million cubic feet (± standard error)------*		
Marin	19 ± 3	104 ± 46	11 ± 2	115 ± 47
Monterey	4 ± 4	0	1 ± 1	1 ± 1
San Benito	11 ± 7	1 ± 1	23 ± 22	24 ± 23
San Mateo	55 ± 13	246 ± 110	86 ± 42	332 ± 111
Santa Clara	8 ± 8	72 ± 70	9 ± 9	81 ± 78
Santa Cruz	156 ± 9	812 ± 187	326 ± 99	1,138 ± 250
Total	252 ± 25	1,235 ± 223	456 ± 91	1,691 ± 255

Standard errors for estimates of timber volume, growth, and mortality, by species or forest type group and owner class, on timberland outside the National Forest are shown below:

Volume, species, and forest type	Other public	Forest industry	Other private	All owners
	Million cubic feet (volume ± standard error)			
Net volume:				
Softwood species	20 ± 19	115 ± 85	1,100 ± 223	1,235 ± 223
Hardwood species	0	41 ± 32	415 ± 100	456 ± 91
Total	20 ± 19	156 ± 117	1,515 ± 266	1,691 ± 255
Net volume:				
Softwood forest types	20 ± 19	52 ± 52	872 ± 232	942 ± 509
Hardwood forest types	0	105 ± 105	643 ± 202	748 ± 285
Total [1]	20 ± 19	156 ± 117	1,575 ± 266	1,691 ± 255
	Thousand cubic feet (volume ± standard error)			
Net annual growth:				
Softwood forest types	403 ± 403	2,232 ± 2,232	18,387 ± 4,563	21,022 ± 5,095
Hardwood forest types	0	3,527 ± 3,527	12,187 ± 3,859	15,714 ± 3,509
Total [1]	403 ± 403	5,759 ± 4,174	30,574 ± 5,087	36,760 ± 5,338
Net annual mortality:				
Softwood forest types	16 ± 16	136 ± 136	1,865 ± 627	2,017 ± 642
Hardwood forest types	0	538 ± 538	2,696 ± 814	3,234 ± 788
Total [1]	16 ± 16	674 ± 555	4,561 ± 825	5,259 ± 812

Standard errors have been calculated for most of the tabular data in this report and are available on request from the PRIME Program, Pacific Northwest Research Station, Forestry Sciences Laboratory, P.O. Box 3890, Portland, Oregon 97208-3890.

Data Quality

Field crews attended a 2-week intensive training session to learn data collection procedures. During the first few weeks of field work, inexperienced crew members were paired with experienced crew members. About 10 percent of the field plots were revisited, and all items were remeasured to check on accuracy and consistency in classification, plot layout, tree measurements, and species identification. Each person's work was audited about five times during the field season. If consistent errors were detected, crews were informed and retrained as necessary. Data were edited extensively by using computer programs in both the field and the office. The edits checked for reasonableness of tree measurements in relation to other measurements on the tree. Questionable data were sent back to the field for verification, and data were corrected as necessary.

[1] Volume of the nonstocked forest type is included in the total.

Terminology

Available other forest land--Forest land incapable of growing 20 cubic feet per acre per year (mean annual increment at culmination in fully stocked, natural stands) of industrial wood because of adverse conditions such as sterile soils, dry climate, poor drainage, subalpine sites, steepness, or rockiness.

Class of timber--A classification of trees as growing stock, cull, and salvable dead. Growing-stock trees are divided into poletimber and sawtimber trees.

Condition class--A mapped area on a plot with a distinct land class (for example, timberland, oak woodland, nonforest) or a distinct vegetative condition (for example, forest type, stand size). The first condition identified at plot center is the only condition that is remeasured and used for the analysis of periodic change.

County and municipal lands--Lands owned by county and other local public agencies.

Cull trees--Live trees of noncommercial species, and live trees of commercial species that are more than 75 percent defective. Noncommercial species are junipers, pinyon pines, gray pine, Pacific yew, Pacific dogwood, apple, and willow. Cull trees are not growing-stock trees.

Cull trees, rotten--Cull trees with defect caused primarily by rot.

Cull trees, sound--Trees of noncommercial species or cull trees of commercial species with defect caused primarily by poor form and roughness.

Diameter class--A classification of trees based on diameter outside the bark measured at breast height, 4-1/2 feet above the ground. D.b.h. is the common abbreviation for diameter at breast height. Trees are grouped into 2-inch classes up to 21 inches d.b.h., after which the class intervals become broader.

Even-aged stands--Stands where 70 percent or more of the tree stocking falls within three adjacent 10-year age classes.

Farmer-owned lands--Lands owned by the operators of farms.

Forest industry lands--Lands owned by companies that grow timber for industrial use. Includes companies both with and without wood processing plants.

Forest land--Land at least 10 percent stocked with live trees, or land that had this minimum tree stocking in the past and is not currently developed for nonforest use. The minimum area recognized is 1 acre.

Forest types--Stands are assigned a pure softwood, pure hardwood, softwood-hardwood mix, hardwood-softwood mix, or mixed-conifer forest type. Stands with 70 percent or more of the stocking in live softwood trees are classified as pure softwood types and are assigned the type name of the softwood species with the greatest stocking among all softwoods on the condition class plot. Stands with 70 percent or more of the stocking in live hardwood trees are classified as pure hardwood types and are assigned the type name of the hardwood species with the greatest stocking among all hardwoods on the condition class plot. Mixed species types are assigned if softwood stocking is between 31 to 69 percent total stocking on the plot: stands with

50 to 69 percent of the stocking in live softwood trees are classed as softwood-hardwood types, and receive a type name that includes the softwood species with the greatest softwood stocking, followed by the hardwood species with the greatest hardwood stocking; stands with 51 to 69 percent of the stocking in live hardwood trees are classed as hardwood-softwood types, and receive a type name that includes the hardwood species with the greatest hardwood stocking, followed by the softwood species with the greatest softwood stocking. For ease in reporting, the secondary forest type will be identified after a slash as "softwood" or "hardwood" in the summary tables. If a softwood forest type is one of the following species--sugar pine, ponderosa pine, Jeffrey pine, incense-cedar, Douglas-fir, white fir, or red fir--the plot is examined to determine if it is a mixed-conifer type (see appendix A, item 3, for a procedural reference). The alpine forest type is a general classification used by the National Forest System for high-elevation areas occupied by one or more of the following species: subalpine fir, Engelmann spruce, limber pine, bristlecone pine, whitebark pine, foxtail pine, or western white pine.

Growing-stock trees--All live trees except cull trees (see "cull trees").

Growing-stock volume--Net volume in cubic feet of live sawtimber and poletimber growing-stock trees from the top of a stump 12 inches tall to a minimum 4-inch top (of central stem) inside the bark. Net volume is gross volume less deductions for rot and missing bole sections.

Growth, current net annual, growing-stock--The increase in growing-stock volume during the last year in the period between the previous and current inventories. Components of current net annual growth for growing-stock volume include (a) the increment in net volume of poletimber and sawtimber growing-stock trees alive at the beginning of the year and surviving to year end; plus (b) ingrowth, the net volume of growing-stock trees reaching poletimber or sawtimber size during the year; minus (c) mortality, the net volume of poletimber and sawtimber growing-stock trees that died during the year.

Growth, current net annual, sawtimber--The increase in sawtimber volume during the last year in the period between the previous and current inventories. Components of current net annual growth for sawtimber volume include (a) the increment in net volume of sawtimber trees alive at the beginning of the year and surviving to year end; plus (b) ingrowth, the net volume of trees reaching sawtimber size during the year; minus (c) mortality, the net volume of sawtimber trees that died during the year.

Growth, periodic gross, growing-stock--The increase in growing-stock volume between the previous and current inventories that is attributable to increasing tree size. Periodic gross growth includes (a) the increment in net volume of poletimber and sawtimber growing-stock trees alive at both the previous and current inventories; (b) the increment in net volume of poletimber and sawtimber growing-stock trees alive at the previous inventory and harvested between inventories; and (c) ingrowth, the net volume of growing-stock trees reaching poletimber or sawtimber size between inventories.

Growth, periodic gross, sawtimber--The increase in sawtimber volume between the previous and current inventories that is attributable to increasing tree size. Periodic gross growth includes (a) the increment in net volume of sawtimber trees alive at the both the previous and current inventories; (b) the increment in net volume of sawtimber trees alive at the previous inventory and harvested between inventories; and (c) ingrowth, the net volume of trees reaching sawtimber size between inventories.

Hardwoods--Nonconiferous trees, usually broad-leaved. See "Names of Trees" for a list of hardwood species in this report.

Industrial wood--All commercial roundwood products except fuelwood. Roundwood includes logs or bolts that are in straight sections at least 8 feet long for hardwoods and 12 feet long for softwoods.

Land area--Area reported as land by the Bureau of the Census (U.S. Department of Commerce 1990). Total land area includes dry land and land temporarily or partially covered by water, such as marshes, swamps, and river flood plains; streams, sloughs, and canals less than 200 feet wide; and lakes, reservoirs, and ponds less than 4.5 acres in area.

Land class--A classification of land by major use. The minimum area for classification is 1 acre.

Mean annual increment (MAI) at culmination--A measure of the productivity of forest land expressed as the average increase in cubic-foot volume per acre per year. For a given species and site index, the mean is based on the age at which the mean annual increment culminates for fully stocked natural stands. The MAI is calculated from equations and is based on the site index of the plot.

Miscellaneous Federal lands--Federal lands other than lands administered by the Forest Service.

Miscellaneous private owners--All private owners not otherwise classified.

Mortality, average annual, growing stock--The annual net volume of poletimber and sawtimber growing-stock trees that died between the previous and current inventories.

Mortality, average annual, sawtimber--The annual net volume of sawtimber trees that died between the previous and current inventories.

Mortality, periodic, growing stock--The net volume of poletimber and sawtimber growing-stock trees that died between the previous and current inventories.

Mortality, periodic, sawtimber--The net volume of sawtimber trees that died between the previous and current inventories.

National Forest lands--Federal lands that have been designated by Executive Order or statute as National Forest or purchase units and other lands under the administration of the Forest Service, U.S. Department of Agriculture, including experimental areas and Bankhead-Jones Title III lands.

Native American lands--Tribal and allotted lands held in trust by the Federal Government. Native American lands are grouped with farmer and miscellaneous private lands as other private lands.

Net volume--Gross volume less deductions for sound and rotten defects. Growing-stock net volume is gross cubic-foot volume less deductions for rot and missing bole sections on poletimber and sawtimber growing-stock trees. Sawtimber net volume is gross board-foot volume less deductions for rot, sweep, crook, missing bole sections, and other defects that affect the use of sawtimber trees for lumber.

Noncommercial species--A tree species not suitable for industrial wood products: junipers, gray pine, Pacific yew, Pacific dogwood, apple, and willow. Noncommercial species will not be included in growing-stock volume tables; however, if one or more of these species dominate on a plot, the forest type might be classified as a noncommercial species.

Nonforest land--Land that has never supported forests or formerly was forested and currently is developed for nonforest uses. Included are lands used for agricultural crops, Christmas tree farms, improved pasture, residential areas, city parks, constructed roads, operating railroads and their right-of-way clearings, powerline and pipeline clearings, streams more than 30 feet wide, and 1- to 40-acre areas of water classified by the Bureau of the Census, U.S. Department of Commerce, as land. If intermingled in forest areas, unimproved roads and other nonforest strips must be more than 120 feet wide, and clearings or other areas must be 1 acre or larger to qualify as nonforest land.

Nonstocked areas--Timberland less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are classified as nonstocked area.

Other private lands--Private lands not owned by forest industry. Native American lands, farmer-owned lands, and miscellaneous private lands are included.

Other public lands--Lands administered by public agencies other than the U.S. Department of Agriculture, Forest Service. Other public lands do not include Native American lands, which are included with other private lands.

Poletimber stands--Stands with a quadratic mean diameter (mean diameter weighted by basal area) from 5.0 to 9.0 inches at breast height if a softwood stand and from 5.0 to 11.0 inches at breast height if a hardwood stand.

Poletimber trees--Live growing-stock trees of commercial species that are 5.0 inches in d.b.h. or larger but smaller than sawtimber trees.

Removals, average annual, growing stock--The annual net volume of poletimber and sawtimber growing-stock trees removed by harvesting, silvicultural activities, and land clearing between the previous and current inventories. Removals are estimated from data collected on field plots in the inventory and not from information in State harvesting records.

Removals, average annual, sawtimber--The annual net volume of sawtimber trees removed by harvesting, silvicultural activities, and land clearing between the previous and current inventories. Removals are estimated from data collected on field plots in the inventory and not from information in State harvesting records.

Removals, periodic, growing stock--The net volume of poletimber and sawtimber growing-stock trees removed by harvesting, silvicultural activities, and land clearing between the previous and current inventories. Removals are estimated from data collected on field plots in the inventory and not from information in State harvesting records.

Removals, periodic, sawtimber--The net volume of sawtimber trees removed by harvesting, silvicultural activities, and land clearing between the previous and current inventories. Removals are estimated from data collected on field plots in the inventory and not from information in State harvesting records.

Reserved other forest--Forest land incapable of growing 20 cubic feet per acre per year (mean annual increment at culmination in fully stocked, natural stands) of industrial wood that has been dedicated to noncommodity use through statute, ordinance, or administrative order.

Reserved timberland--Forest land capable of growing 20 cubic feet or more per acre per year (mean annual increment at culmination in fully stocked, natural stands) of industrial wood that has been dedicated to noncommodity use through statute, ordinance, or administrative order. Plots were not established in reserved areas; tree data therefore were not available to determine the mean annual increment (MAI) for these plots. Because of this, reserved forest land with an MAI of less than 20 cubic feet per acre per year may be classified as reserved timberland rather than reserved other forest land.

Roundwood--Logs, bolts, or other round sections cut from trees.

Sapling and seedling stands--Stands with a quadratic mean diameter (mean diameter weighted by basal area) less than 5.0 inches at breast height.

Sapling and seedling trees--Live trees of commercial species that are less than 5.0 inches in d.b.h. and have no diseases, defects, or deformities likely to prevent their becoming poletimber trees.

Saw-log portion--The bole of sawtimber trees between the stump and the saw-log top. Saw-log top is 7.0 inches in diameter outside bark on softwoods and 9.0 inches in diameter outside bark on hardwoods.

Sawtimber stands--Stands with a quadratic mean diameter (mean diameter weighted by basal area) larger than 9.0 inches at breast height if a softwood stand and larger than 11.0 inches at breast height if a hardwood stand.

Sawtimber trees--Live softwood trees of commercial species at least 9.0 inches in d.b.h. and live hardwood trees of commercial species at least 11.0 inches in d.b.h. At least 25 percent of the board-foot volume in a sawtimber tree must be free from defect. Softwood trees must contain at least one 12-foot saw log with a top diameter of not less than 7 inches outside bark; hardwood trees must contain at least one 8-foot saw log with a top diameter of not less than 9 inches outside bark.

Sawtimber volume--Net volume of sawtimber trees measured in board feet. Softwood volume is estimated from the top of a stump 12-inches tall up to a minimum 6-inch top diameter, inside bark, and hardwood volume is estimated from the top of a stump 12-inches tall up to a minimum 8-inch top diameter, inside bark. Net sawtimber volume equals gross volume less deduction for rot, sweep, crook, and other defects that affect use for lumber.

Scribner rule--The common board-foot log rule used locally in California to determine sawtimber volume. Scribner volume is estimated in terms of 16-foot logs for both softwoods and hardwoods. See "sawtimber volume" for utilization limits.

Site class--A classification of the potential productivity of forest land expressed as mean annual increment (MAI) at culmination in fully stocked natural stands. Six classes in this report are based on a range of MAI values that were calculated on every plot.

Site index--A measure of the productivity of forest land expressed as the average height of dominant and codominant trees at a specified age.

Softwoods--Coniferous trees, usually evergreen, with needles or scalelike leaves. See "Names of Trees" for a list of softwood species in this report.

Stand age--The 10-year age class that best characterizes the stand. See "even-aged stand" and "uneven-aged stand" for more details.

Stand-size class--A classification of stands based on tree size. Stand-size classes are sawtimber, poletimber, and sapling-seedling stands.

State lands--Lands owned by States or administered by State agencies.

Timber harvest--Volume of roundwood removed from forest land for products. Timber harvest statistics reported in tables 35 and 36 were collected by the California State Board of Equalization, Timber Tax Division, in Sacramento. The Board of Equalization figures do not include smash, mismanufacture, breakage, or wood left behind in the forest. Average annual removals (tables 28 and 29) and periodic removals (tables 31 and 32) are based on trees sampled in PRIME inventories that were live during the previous inventory but were harvested or killed in a cultural operation before the current inventory.

Timber volume--Includes the net volume in cubic feet of poletimber and sawtimber trees and salvable dead sawtimber trees, and the net volume in cubic feet of cull trees of commercial species. In table 18, the volume of cull trees includes the gross volume of noncommercial species. Volume is measured from the top of a stump 12 inches tall to a minimum 4-inch top diameter, inside bark.

Timberland--Forest land capable of growing 20 cubic feet or more per acre per year (mean annual increment at culmination in fully stocked, natural stands) of industrial wood and not in a reserved status through removal of the area from timber utilization by statute, ordinance, or administrative order; and not in a withdrawn status where it is pending consideration for reserved status.

Uneven-aged stands--Stands where less than 70 percent of the tree stocking falls in three adjacent 10-year age classes.

Upper stem portion--The bole of sawtimber trees above the saw-log top--7.0 inches diameter outside bark for softwoods and 9.0 inches diameter outside bark for hardwoods--to a minimum top diameter of 4.0 inches inside bark, or to the point where the central stem divides into limbs.

Withdrawn timberland--Timberland in National Forests that is being considered for permanent reserved status. Although this land has not been removed from timber utilization by statute, ordinance, or administrative order, it is not being actively managed as timberland.

Names of Trees

Common name	Scientific name [2]
Softwoods:	
Bishop pine	*Pinus muricata* D. Don
Bristlecone pine	*Pinus aristata* Engelm.
California-nutmeg	*Torreya californica* Torr.
Coulter pine	*Pinus coulteri* D. Don
Douglas-fir	*Pseudotsuga menziesii* (Mirb.) Franco
Engelmann spruce	*Picea engelmannii* Parry ex Engelm.
Foxtail pine	*Pinus balfouriana* Grev. & Balf.
Gray pine (foothill pine)	*Pinus sabiniana* Dougl.
Incense-cedar	*Libocedrus decurrens* Torr.
Jeffrey pine	*Pinus jeffreyi* Grev. & Balf.
Knobcone pine	*Pinus attenuata* Lemm.
Limber pine	*Pinus flexilis* James
Monterey pine	*Pinus radiata* D. Don
Pacific yew	*Taxus brevifolia* Nutt.
Pinyon pine	*Pinus* spp.
Ponderosa pine	*Pinus ponderosa* Dougl. ex Laws.
Red fir:	
California red fir	*Abies magnifica* A. Murr.
Shasta red fir	*Abies magnifica* var. *shastensis* Lemmon
Sugar pine	*Pinus lambertiana* Dougl.
Subalpine fir	*Abies lasiocarpa* (Hook.) Nutt.
Western juniper	*Juniperus occidentalis* Hook.
Western white pine	*Pinus monticola* Dougl. ex D. Don
Whitebark pine	*Pinus albicaulis* Engelm.
White fir	*Abies concolor* (Gord. & Glend.) Lindl. ex Hildebr.

[2] Nomenclature per Little (1979).

Common name	Scientific name [2]
Hardwoods:	
Apple	*Malus* spp. Mill.
Bigleaf maple	*Acer macrophyllum* Pursh
Blue oak	*Quercus douglasii* Hook. & Arn.
California black oak	*Quercus kelloggii* Newb.
California buckeye	*Aesculus californica* (Spach) Nutt.
California-laurel	*Umbellularia californica* (Hook. & Arn.) Nutt.
Canyon live oak	*Quercus chrysolepis* Liebm.
Coast live oak	*Quercus agrifolia* Née
Eucalyptus	*Eucalyptus* spp.
Interior live oak	*Quercus wislizeni* A. DC.
Oregon white oak	*Quercus garryana* Dougl. ex Hook.
Pacific dogwood	*Cornus nuttallii* Audubon
Pacific madrone	*Arbutus menziesii* Pursh
Red alder	*Alnus rubra* Bong.
Sycamore	*Platanus occidentalis* L.
Tanoak	*Lithocarpus densiflorus* (Hook. & Arn.) Rehd.
Valley oak	*Quercus lobata* Née
Willow	*Salix* spp.

[2] Nomenclature per Little (1979).

Tables

Table 1--Land area, by county and land class, Central Coast Resource Area, California, 1994 [a b]

County	Forest land					Non-forest	All land [c]
	Timberland	Reserved timberland	Available other forest	Reserved other forest	Total forest		
	Thousand acres						
Alameda	0	1	91	21	113	359	472
Contra Costa	0	1	28	10	39	422	461
Marin	19	37	40	12	108	225	333
Monterey	26	18	936	85	1,065	1,061	2,126
San Benito	11	0	371	17	399	490	889
San Francisco	0	0	0	0	0	30	30
San Luis Obispo	0	2	721	34	757	1,358	2,115
San Mateo	55	24	47	25	150	137	287
Santa Barbara	1	9	865	20	895	742	1,637
Santa Clara	8	7	349	59	423	403	826
Santa Cruz	156	28	30	8	222	63	285
Solano	0	0	42	2	44	486	530
Ventura	31	2	679	32	744	437	1,181
Total	307	129	4,199	325	4,959	6,213	11,172

0 = none found
[a] Totals may be off because of rounding; data subject to sampling error.
[b] Data for the National Forest were updated to 1992; data for other owners were collected during 1991-94.
[c] Source: U.S. Department of Commerce 1990.

Table 2--Area of reserved timberland and other forest land, by forest type, Central Coast Resource Area, California, 1994 [a b]

Forest type	Reserved timberland [c]	Other forest		Total
		Available	Reserved	
	Thousand acres			
Softwood types:				
Redwood	41	0	0	41
Mixed conifer	43	0	0	43
True fir	1	0	0	1
Douglas-fir	4	0	0	4
Knobcone pine	0	3	0	3
Coulter pine	8	9	0	17
Ponderosa pine	3	0	0	3
Jeffrey pine	4	62	0	67
Bishop pine	7	0	0	7
Gray pine	0	27	--	27
Other pines	3	0	0	3
Cypress	0	8	1	9
Pinyon-juniper	0	150	14	164
Total	114	259	15	388
Hardwood types:				
Bigleaf maple	0	3	0	3
Pacific madrone	0	8	0	8
Eucalyptus	0	8	0	8
Tanoak	4	9	60	73
Sycamore	0	7	--	7
Oaks	0	1,330	117	1,447
California-laurel	--	18	0	18
Other hardwood types	11	0	3	14
Total	15	1,383	180	1,578
Chaparral	0	2,532	130	2,662
Unclassified	0	25	0	25
Total, all types	129	4,199	325	4,653

-- = less than 500 acres, 0 = none found
[a] Totals may be off because of rounding; data subject to sampling error.
[b] Data for the National Forest were updated to 1992; data for other owners were collected during 1991-94.

Table 3--Area of timberland, by county and owner class, Central Coast Resource Area, California, 1994 [a] [b]

County	Public						Private					
		Other public						Other private				
	National Forest	Bureau of Land Management	Miscellaneous Federal	State	County and municipal	Total public	Forest industry	Farmer	Native American	Miscel-laneous	Total private	All owners
	Thousand acres											
Alameda	0	0	0	0	0	0	0	0	0	0	0	0
Contra Costa	0	0	0	0	0	0	0	0	0	0	0	0
Marin	0	0	0	0	0	0	0	6	0	13	19	19
Monterey	22	0	0	0	0	22	0	2	0	2	4	26
San Benito	0	6	0	0	0	6	0	4	0	1	5	11
San Francisco	0	0	0	0	0	0	0	0	0	0	0	0
San Luis Obispo	0	0	0	0	0	0	0	0	0	0	0	0
San Mateo	0	0	0	0	0	0	0	7	0	47	55	55
Santa Barbara	1	0	0	0	0	1	0	0	0	0	0	1
Santa Clara	0	0	0	0	0	0	0	2	0	6	8	8
Santa Cruz	0	0	0	1	0	1	22	30	0	103	155	156
Solano	0	0	0	0	0	0	0	0	0	0	0	0
Ventura	31	0	0	0	0	31	0	0	0	0	0	31
Total	54	6	0	1	0	61	22	51	0	172	245	307

0 = none found

[a] Totals may be off because of rounding; data subject to sampling error.

[b] Data for the National Forest were updated to 1992; data for other owners were collected during 1991-94.

Table 4--Area of timberland, by forest type and owner class, Central Coast Resource Area, California, 1994 [a] [b]

Forest type	National Forest	Other public	Forest industry	Other private	All owners
			Thousand acres		
Softwood types:					
Knobcone pine / hardwood	0	0	0	10	10
Coulter pine	6	0	0	0	6
Ponderosa pine	26	0	0	0	26
Douglas-fir	0	0	0	26	26
Redwood	12	1	0	52	64
Redwood / hardwood	0	0	10	24	34
Mixed conifer	11	0	0	0	11
Total	55	1	10	111	177
Hardwood types:					
Pacific madrone / softwood	0	0	0	7	7
Tanoak / softwood	0	0	12	35	47
Coast live oak	0	0	0	32	32
Coast live oak / softwood	0	0	0	8	8
Canyon live oak	0	0	0	13	13
Blue oak / softwood	0	0	0	4	4
Willow	0	0	0	2	2
California-laurel	0	0	0	12	12
Total	0	0	12	112	124
Nonstocked [c]	0	6	0	0	6
Total, all types	55	7	22	223	307

0 = none found
[a] Totals may be off because of rounding; data subject to sampling error.
[b] Data for the National Forest were updated to 1992; data for other owners were collected during 1991-94.
[c] Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

Table 5--Area of timberland, by owner class, stand-size class, and forest type group, Central Coast Resource Area, California, 1994 [a b]

Owner	Sawtimber			Poletimber			Seedling - sapling			All stand-size classes			
	Softwood types	Hardwood types	All types	Softwood types	Hardwood types	All types	Softwood types	Hardwood types	All types	Softwood types	Hardwood types	Not classified [c]	All types
	Thousand acres												
National Forest	32	0	32	5	0	5	0	0	0	36	0	19	55
Other public	1	0	1	0	0	0	0	0	0	1	0	6	7
Forest industry	10	12	22	0	0	0	0	0	0	10	12	0	22
Other private	101	110	211	0	0	0	10	2	12	111	112	0	223
All owners	144	122	266	5	0	5	10	2	12	159	124	24	307

0 = none found
[a] Totals may be off because of rounding; data subject to sampling error.
[b] Data for the National Forest were updated to 1992; data for other owners were collected during 1991-94.
[c] Stand-size class was not determined for nonstocked stands, and for some softwood and hardwood types on National Forest land.

Table 6--Area of timberland, by cubic-foot site class and owner class, Central Coast Resource Area, California, 1994 [a b]

Owner	Site class [c]						All classes
	≥225	165-224	120-164	85-119	50-84	20-49	
	Thousand acres						
National Forest	12	0	43	0	0	0	55
Other public	0	0	0	1	0	6	7
Forest industry	22	0	0	0	0	0	22
Other private	38	63	81	26	15	0	223
All owners	72	63	124	27	15	6	307

0 = none found
[a] Totals may be off because of rounding; data subject to sampling error.
[b] Data for the National Forest were updated to 1992; data for the other owners were collected during 1991-94.
[c] Site class is the mean annual increment cubic-foot growth per acre at culmination in fully stocked, natural stands.

Table 7--Area of timberland, by forest type and stand-size class, Central Coast Resource Area, California, 1994 [a] [b]

Forest type	Sawtimber	Poletimber	Seedling-sapling	Not classified [c]	All classes
			Thousand acres		
Softwood types:					
Knobcone pine / hardwood	0	0	10	0	10
Coulter pine	0	0	0	6	6
Ponderosa pine	21	5	0	0	26
Douglas-fir	26	0	0	0	26
Redwood	53	0	0	12	64
Redwood / hardwood	34	0	0	0	34
Mixed conifer	10	0	0	--	11
Total	144	5	10	19	177
Hardwood types:					
Pacific madrone / softwood	7	0	0	0	7
Tanoak / softwood	47	0	0	0	47
Coast live oak	32	0	0	0	32
Coast live oak / softwood	8	0	0	0	8
Canyon live oak	13	0	0	0	13
Blue oak / softwood	4	0	0	0	4
Willow	0	0	2	0	2
California-laurel	12	0	0	0	12
Total	122	0	2	0	124
Nonstocked [d]	0	0	0	6	6
Total, all types	266	5	12	24	307

-- = less than 500 acres, 0 = none found

[a] Totals may be off because of rounding; data subject to sampling error.

[b] Data for the National Forest were updated to 1992; data for other owners were collected during 1991-94.

[c] Stand-size class was not determined for nonstocked stands, and for some softwood types on National Forest land.

[d] Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

Table 8--Number of live trees on timberland outside the National Forest, by species and diameter class, Central Coast Resource Area, California, 1994 [a b]

Species	Diameter class (inches at breast height)													All classes
	1.0-2.9	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0-38.9	39.0 +	
	Thousand trees													
Softwoods:														
White fir	0	0	0	0	0	0	0	0	0	0	0	0	6	6
Knobcone pine	4,621	729	687	0	0	0	0	0	0	37	0	0	0	6,074
Ponderosa pine	0	0	0	0	0	0	0	45	0	0	0	0	15	60
Monterey pine	0	0	0	0	0	0	0	0	0	0	0	38	38	76
Gray pine	0	0	0	0	0	0	0	0	25	31	0	35	0	91
Douglas-fir	2,763	1,639	0	338	323	653	55	0	274	105	134	463	170	6,916
Redwood	8,174	3,678	2,543	1,596	1,033	1,652	1,391	1,733	963	922	644	2,676	459	27,464
California-nutmeg	0	271	0	0	0	0	0	0	0	0	0	0	0	271
Total	15,558	6,317	3,230	1,934	1,356	2,305	1,447	1,778	1,263	1,094	779	3,212	688	40,959
Hardwoods:														
Bigleaf maple	0	568	560	170	0	0	0	0	0	0	0	0	0	1,298
California buckeye	199	0	0	0	0	0	0	0	0	0	0	0	0	199
Pacific madrone	1,041	398	291	596	105	379	134	241	218	149	36	168	0	3,756
Eucalyptus	0	0	0	0	0	0	0	0	0	0	0	21	0	21
Tanoak	14,731	5,186	2,370	2,381	1,684	1,900	1,153	210	279	262	136	233	11	30,534
Coast live oak	1,471	921	1,458	754	1,023	843	1,002	438	475	285	159	198	0	9,026
Canyon live oak	916	504	0	0	0	340	379	0	0	60	0	157	0	2,355
Blue oak	0	0	0	0	0	0	0	0	0	0	16	0	6	22
Oregon white oak	0	0	0	0	0	0	0	0	0	0	17	0	0	17
California black oak	0	0	0	0	0	0	0	0	0	0	0	12	0	12
Interior live oak	1,241	0	0	0	0	0	0	0	0	0	0	0	0	1,241
Willow	507	0	169	0	161	0	0	0	0	0	0	0	0	836
California-laurel	2,083	2,407	1,512	881	141	277	324	275	0	35	25	21	0	7,982
Total	22,189	9,984	6,359	4,782	3,113	3,739	2,992	1,164	972	792	371	825	17	57,299
All species	37,746	16,301	9,589	6,716	4,468	6,044	4,439	2,942	2,234	1,886	1,150	4,038	705	98,257

0 = none found

[a] Includes cull trees

[b] Totals may be off because of rounding; data subject to sampling error.

Table 9--Number of growing-stock trees on timberland outside the National Forest, by species and diameter class, Central Coast Resource Area, California, 1994 [a] [b]

Species	Diameter class (inches at breast height)													All classes
	1.0-2.9	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0-38.9	39.0 +	
	Thousand trees													
Softwoods:														
White fir	0	0	0	0	0	0	0	0	0	0	0	0	6	6
Knobcone pine	4,621	729	687	0	0	0	0	0	0	37	0	0	0	6,074
Ponderosa pine	0	0	0	0	0	0	0	45	0	0	0	0	15	60
Monterey pine	0	0	0	0	0	0	0	0	0	0	0	38	38	76
Douglas-fir	2,763	1,639	0	338	323	653	55	0	274	105	134	463	160	6,906
Redwood	7,308	3,486	2,543	1,596	925	1,652	1,271	1,733	963	899	644	2,660	459	26,138
California-nutmeg	0	271	0	0	0	0	0	0	0	0	0	0	0	271
Total	14,691	6,125	3,230	1,934	1,248	2,305	1,326	1,778	1,237	1,041	779	3,161	678	39,531
Hardwoods:														
Bigleaf maple	0	568	361	0	0	0	0	0	0	0	0	0	0	929
California buckeye	199	0	0	0	0	0	0	0	0	0	0	0	0	199
Pacific madrone	751	398	291	596	0	379	134	206	218	149	36	150	0	3,307
Eucalyptus	0	0	0	0	0	0	0	0	0	0	0	21	0	21
Tanoak	14,440	4,314	2,079	2,108	1,684	1,900	1,005	110	279	262	136	233	11	28,559
Coast live oak	1,471	921	1,167	138	781	573	911	329	407	262	159	151	0	7,270
Canyon live oak	916	504	0	0	0	340	261	0	0	60	0	157	0	2,237
Blue oak	0	0	0	0	0	0	0	0	0	0	16	0	0	16
Oregon white oak	0	0	0	0	0	0	0	0	0	0	17	0	0	17
California black oak	0	0	0	0	0	0	0	0	0	0	0	12	0	12
Interior live oak	1,241	0	0	0	0	0	0	0	0	0	0	0	0	1,241
California-laurel	1,484	2,407	1,512	881	141	277	324	275	0	35	25	21	0	7,384
Total	20,502	9,112	5,409	3,723	2,606	3,469	2,636	920	903	768	371	760	11	51,190
All species	35,193	15,237	8,639	5,657	3,854	5,774	3,962	2,698	2,141	1,809	1,150	3,921	689	90,721

0 = none found

[a] Growing-stock trees are all live trees except cull trees (noncommercial species are classified as sound cull trees).

[b] Totals may be off because of rounding; data subject to sampling error.

Table 10--Net volume of growing stock on timberland, by species and diameter class, Central Coast Resource Area, California, 1994 [a b c]

Species	Diameter class (inches at breast height)											All classes
	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0-38.9	39.0 +	
	Million cubic feet											
Softwoods:												
White fir	--	--	--	--	1	1	--	1	5	5	7	20
Knobcone pine	1	0	0	0	0	0	0	3	0	0	0	4
Coulter pine	--	--	1	1	1	1	1	1	3	2	--	11
Jeffrey pine	1	1	2	2	2	2	2	3	10	18	15	57
Sugar pine	--	--	--	--	--	--	--	--	2	2	2	8
Ponderosa pine	0	0	0	--	--	1	--	--	--	--	13	15
Monterey pine	0	0	0	0	0	0	0	0	0	15	27	42
Douglas-fir	0	4	5	17	2	0	17	8	50	51	80	234
Redwood	3	7	8	27	30	60	43	54	257	241	294	1,024
Total	5	12	16	48	36	66	64	69	328	334	437	1,415
Hardwoods:												
Bigleaf maple	1	--	--	1	1	1	--	0	0	0	0	4
Red alder	--	--	--	--	--	--	--	0	--	--	0	1
Pacific madrone	1	5	--	9	5	10	12	9	20	8	--	79
Eucalyptus	0	0	0	0	0	0	0	0	2	2	0	4
Tanoak	4	9	17	31	25	6	13	17	35	12	4	172
Sycamore	0	0	0	0	0	0	--	--	--	--	--	--
Coast live oak	3	1	7	9	19	10	17	14	24	7	0	110
Canyon live oak	1	2	3	7	8	1	1	5	11	24	1	64
Blue oak	1	1	1	1	1	1	1	--	2	0	0	8
Oregon white oak	0	0	0	0	0	0	0	0	2	0	0	2
California black oak	--	--	--	--	--	--	--	--	--	2	0	3
Valley oak	0	0	0	0	0	0	--	--	--	--	--	1
Interior live oak	--	--	1	1	1	1	--	0	--	--	1	5
California-laurel	7	6	2	6	9	11	--	4	7	0	0	52
Total	19	25	31	64	68	40	45	49	103	56	6	505
All species	24	37	47	111	104	106	109	119	431	389	443	1,920

-- = less than 500,000 cubic feet, 0 = none found

[a] Totals may be off because of rounding; data subject to sampling error.

[b] Includes growing-stock trees ≥ 5 inches d.b.h.

[c] Data for the National Forest were updated to 1992; data for other owners were collected during 1991-94.

Table 11--Net volume of sawtimber on timberland, by species and diameter class, Central Coast Resource Area, California, 1994 [a b c]

Species	Diameter class (inches at breast height)									All classes
	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0-38.9	39.0 +	
	Million board feet, Scribner rule									
Softwoods:										
White fir	1	2	3	5	3	4	32	28	37	114
Knobcone pine	0	0	0	0	0	13	0	0	0	13
Coulter pine	3	3	5	8	6	6	18	12	1	62
Jeffrey pine	11	11	15	16	12	19	69	120	101	373
Sugar pine	1	3	2	2	2	2	11	11	12	46
Ponderosa pine	0	1	1	5	1	1	3	2	91	104
Monterey pine	0	0	0	0	0	0	0	103	184	287
Douglas-fir	20	76	8	0	87	44	286	307	496	1,323
Redwood	25	104	126	277	208	266	1,399	1,419	1,807	5,630
Total	62	200	160	312	318	354	1,817	2,001	2,729	7,953
Hardwoods:										
Bigleaf maple		2	3	3	2	0	0	0	0	10
Red alder		--	--	--	--	0	--	--	0	2
Pacific madrone		28	11	25	31	20	74	17	--	206
Eucalyptus		0	0	0	0	0	11	15	0	26
Tanoak		100	87	23	48	68	160	56	23	565
Sycamore		0	0	0	--	--	--	--	--	1
Coast live oak		27	49	26	37	29	52	20	0	240
Canyon live oak		13	18	5	6	10	17	70	3	142
Blue oak		3	3	3	2	2	5	0	0	17
Oregon white oak		0	0	0	0	0	3	0	0	3
California black oak		1	1	1	1	--	1	6	0	10
Valley oak		0	0	0	--	--	1	1	2	5
Interior live oak		3	3	4	2	0	1	1	3	16
California-laurel		16	29	33	1	15	31	0	0	124
Total		194	205	123	130	143	355	186	31	1,367
All species	62	393	365	435	448	497	2,172	2,188	2,760	9,320

-- = less than 500,000 board feet, 0 = none found

[a] Totals may be off because of rounding; data subject to sampling error.

[b] Includes sawtimber softwood trees ≥ 9 inches d.b.h. and sawtimber hardwood trees ≥ 11 inches d.b.h.

[c] Data for the National Forest were updated to 1992; data for other owners were collected during 1991-94.

Table 12--Net volume of growing stock on timberland, by species and owner class, Central Coast Resource Area, California, 1994 [a b c]

Species	National Forest	Other public	Forest industry	Other private	All owners
			Million cubic feet		
Softwoods:					
White fir	17	0	0	3	20
Knobcone pine	0	0	0	4	4
Coulter pine	11	0	0	0	11
Jeffrey pine	57	0	0	0	57
Sugar pine	8	0	0	0	8
Ponderosa pine	2	1	0	13	15
Monterey pine	--	0	0	42	42
Douglas-fir	4	0	27	204	234
Redwood	82	19	89	835	1,024
Total	181	20	115	1,100	1,415
Hardwoods:					
Bigleaf maple	4	0	0	1	4
Red alder	1	0	0	0	1
Pacific madrone	2	0	17	60	79
Eucalyptus	0	0	0	4	4
Tanoak	9	0	20	143	172
Sycamore	--	0	0	0	--
Coast live oak	--	0	4	106	110
Canyon live oak	17	0	0	47	64
Blue oak	7	0	0	1	8
Oregon white oak	0	0	0	2	2
California black oak	1	0	0	2	3
Valley oak	1	0	0	0	1
Interior live oak	5	0	0	0	5
California-laurel	3	0	0	49	52
Total	49	0	41	415	505
All species	229	20	156	1,515	1,920

-- = less than 500,000 cubic feet, 0 = none found

[a] Totals may be off because of rounding; data subject to sampling error.

[b] Includes growing-stock trees ≥ 5 inches d.b.h.

[c] Data for the National Forest were updated to 1992; data for other owners were collected during 1991-94.

Table 13--Net volume of sawtimber on timberland, by species and owner class, Central Coast Resource Area, California, 1994 [a b c]

Species	National Forest	Other public	Forest industry	Other private	All owners
		Million board feet, Scribner rule			
Softwoods:					
White fir	104	0	0	11	114
Knobcone pine	0	0	0	13	13
Coulter pine	62	0	0	0	62
Jeffrey pine	373	0	0	0	373
Sugar pine	46	0	0	0	46
Ponderosa pine	13	4	0	87	104
Monterey pine	0	0	0	287	287
Douglas-fir	26	0	127	1,170	1,323
Redwood	530	75	427	4,598	5,630
Total	1,154	79	554	6,166	7,953
Hardwoods:					
Bigleaf maple	10	0	0	0	10
Red alder	2	0	0	0	2
Pacific madrone	5	0	50	152	206
Eucalyptus	--	0	0	26	26
Tanoak	39	0	50	477	565
Sycamore	1	0	0	0	1
Coast live oak	0	0	12	228	240
Canyon live oak	48	0	0	93	142
Blue oak	16	0	0	1	17
Oregon white oak	0	0	0	3	3
California black oak	4	0	0	6	10
Valley oak	5	0	0	0	5
Interior live oak	16	0	0	0	16
California-laurel	5	0	0	119	124
Total	151	0	112	1,104	1,367
All species	1,305	79	666	7,270	9,320

-- = less than 500,000 board feet, 0 = none found

[a] Totals may be off because of rounding; data subject to sampling error.

[b] Includes sawtimber softwood trees ≥ 9 inches d.b.h. and sawtimber hardwood trees ≥ 11 inches d.b.h.

[c] Data for the National Forest were updated to 1992; data for other owners were collected during 1991-94.

Table 14--Net volume of growing stock on timberland, by forest type and stand-size class, Central Coast Resource Area, California, 1994 [a b c]

Forest type	Sawtimber	Poletimber	Seedling-sapling	Not classified [d]	All classes
			Million cubic feet		
Softwood types:					
Knobcone pine / hardwood	0	0	4	0	4
Coulter pine	0	0	0	10	10
Ponderosa pine	59	10	0	0	69
Douglas-fir	112	0	0	0	112
Redwood	477	0	0	111	588
Redwood / hardwood	350	0	0	0	350
Mixed conifer	40	0	0	0	40
Total	1,037	10	4	121	1,173
Hardwood types:					
Pacific madrone / softwood	26	0	0	0	26
Tanoak / softwood	427	0	0	0	427
Coast live oak	159	0	0	0	159
Coast live oak / softwood	27	0	0	0	27
Canyon live oak	55	0	0	0	55
Blue oak / softwood	1	0	0	0	1
Willow	0	0	1	0	1
California-laurel	51	0	0	0	51
Total	746	0	1	0	747
Nonstocked [e]	0	0	0	1	1
Total, all types	1,783	10	5	122	1,920

0 = none found
[a] Totals may be off because of rounding; data subject to sampling error.
[b] Includes growing-stock trees ≥ 5 inches d.b.h.
[c] Data for the National Forest were updated to 1992; data for other owners were collected during 1991-94.
[d] Stand-size class was not determined for nonstocked stands, and for some softwood types on National Forest land.
[e] Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

Table 15--Net volume of sawtimber on timberland, by forest type and stand-size class, Central Coast Resource Area, California, 1994 [a b c]

Forest type	Sawtimber	Poletimber	Seedling-sapling	Not classified [d]	All classes
			Million board feet, Scribner rule		
Softwood types:					
Coulter pine	0	0	0	41	41
Ponderosa pine	352	39	0	0	392
Douglas-fir	521	0	0	0	521
Redwood	2,616	0	0	640	3,256
Redwood / hardwood	1,786	0	0	0	1,786
Mixed conifer	233	0	0	0	233
Total	5,509	39	0	681	6,229
Hardwood types:					
Pacific madrone / softwood	114	0	0	0	114
Tanoak / softwood	1,942	0	0	0	1,942
Coast live oak	626	0	0	0	626
Coast live oak / softwood	126	0	0	0	126
Canyon live oak	102	0	0	0	102
Blue oak / softwood	1	0	0	0	1
Willow	0	0	5	0	5
California-laurel	171	0	0	0	171
Total	3,082	0	5	0	3,087
Nonstocked [e]	0	0	0	4	4
Total, all types	8,591	39	5	685	9,320

0= none found
[a] Totals may be off because of rounding; data subject to sampling error.
[b] Includes sawtimber softwood trees ≥ 9 inches d.b.h. and sawtimber hardwood trees ≥ 11 inches d.b.h.
[c] Data for the National Forest were updated to 1992; data for other owners were collected during 1991-94.
[d] Stand-size class was not determined for nonstocked stands, and for some softwood types on National Forest land.
[e] Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

Table 16--Net volume of growing stock on timberland, by forest type and owner class, Central Coast Resource Area, California, 1994 [a b c]

Forest type	National Forest	Other public	Forest industry	Other private	All owners
			Million cubic feet		
Softwood types:					
Knobcone pine / hardwood	0	0	0	4	4
Coulter pine	10	0	0	0	10
Ponderosa pine	69	0	0	0	69
Douglas-fir	0	0	0	112	112
Redwood	111	19	0	458	588
Redwood / hardwood	0	0	52	299	350
Mixed conifer	40	0	0	0	40
Total	229	19	52	873	1,173
Hardwood types:					
Pacific madrone / softwood	0	0	0	26	26
Tanoak / softwood	0	0	105	323	427
Coast live oak	0	0	0	159	159
Coast live oak / softwood	0	0	0	27	27
Canyon live oak	0	0	0	55	55
Blue oak / softwood	0	0	0	1	1
Willow	0	0	0	1	1
California-laurel	0	0	0	51	51
Total	0	0	105	642	747
Nonstocked [d]	0	1	0	0	1
Total, all types	229	20	156	1,515	1,920

0 = none found
[a] Totals may be off because of rounding; data subject to sampling error.
[b] Includes growing-stock trees ≥ 5 inches d.b.h.
[c] Data for the National Forest were updated to 1992; data for other owners were collected during 1991-94.
[d] Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

Table 17--Net volume of sawtimber on timberland, by forest type and owner class, Central Coast Resource Area, California, 1994 [a b c]

Forest type	National Forest	Other public	Forest industry	Other private	All owners
			Million board feet, Scribner rule		
Softwood types:					
Coulter pine	41	0	0	0	41
Ponderosa pine	392	0	0	0	392
Douglas-fir	0	0	0	521	521
Redwood	640	75	0	2,541	3,256
Redwood / hardwood	0	0	234	1,553	1,786
Mixed conifer	233	0	0	0	233
Total	1,305	75	234	4,615	6,229
Hardwood types:					
Pacific madrone / softwood	0	0	0	114	114
Tanoak / softwood	0	0	432	1,510	1,942
Coast live oak	0	0	0	626	626
Coast live oak / softwood	0	0	0	126	126
Canyon live oak	0	0	0	102	102
Blue oak / softwood	0	0	0	1	1
Willow	0	0	0	5	5
California-laurel	0	0	0	171	171
Total	0	0	432	2,655	3,087
Nonstocked [d]	0	4	0	0	4
Total, all types	1,305	79	666	7,270	9,320

0 = none found
[a] Totals may be off because of rounding; data subject to sampling error.
[b] Includes sawtimber softwood trees ≥ 9 inches d.b.h. and sawtimber hardwood trees ≥ 11 inches d.b.h.
[c] Data for the National Forest were updated to 1992; data for other owners were collected during 1991-94.
[d] Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

Table 18--Volume of timber on timberland, by class of timber, owner group, and species group, Central Coast Resource Area, California, 1994 [a] [b]

Class of timber	Softwood species	Hardwood species	All species
		Million cubic feet	
Sawtimber trees:			
Outside the National Forest--			
Saw-log portion	1,205	273	1,478
Upper-stem portion	15	124	139
Total	1,220	397	1,617
National Forest	178	40	218
Total, sawtimber trees	1,398	437	1,834
Poletimber trees (all owners)	18	68	86
All growing-stock trees	1,415	505	1,920
Cull trees:			
Outside the National Forest--			
Sound cull trees	5	25	30
Rotten cull trees	4	14	18
Total	9	39	48
National Forest	0	0	0
Total, cull trees	9	39	48
All timber	1,424	544	1,968

0 = none found

[a] Totals may be off because of rounding; data subject to sampling error.

[b] Data for the National Forest were updated to 1992; data for other owners were collected during 1991-94.

Table 19--Current net annual growth of growing stock on timberland, by forest type and owner class, Central Coast Resource Area, California, 1994 [a b]

Forest type	National Forest	Other public	Forest industry	Other private	All owners
			Thousand cubic feet		
Softwood types:					
Knobcone pine / hardwood	0	0	0	392	392
Coulter pine	125	0	0	0	125
Ponderosa pine	489	0	0	0	489
Douglas-fir	0	0	0	3,792	3,792
Redwood	289	403	0	9,002	9,694
Redwood / hardwood	0	0	2,232	5,201	7,433
Mixed conifer	105	0	0	0	105
Total	1,008	403	2,232	18,387	22,030
Hardwood types:					
Pacific madrone / softwood	0	0	0	630	630
Tanoak / softwood	0	0	3,527	6,919	10,446
Coast live oak	0	0	0	2,530	2,530
Coast live oak / softwood	0	0	0	743	743
Canyon live oak	0	0	0	401	401
Blue oak / softwood	0	0	0	10	10
Willow	0	0	0	23	23
California-laurel	0	0	0	933	933
Total	0	0	3,527	12,187	15,714
Nonstocked [c]	0	24	0	0	24
Total, all types	1,008	427	5,759	30,574	37,768

0 = none found

[a] Totals may be off because of rounding; data subject to sampling error.

[b] Data for the National Forest were updated to 1992; data for other owners were collected during 1991-94.

[c] Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

Table 20--Current net annual growth of sawtimber on timberland outside the National Forest, by forest type and owner class, Central Coast Resource Area, California, 1994 [a b]

Forest type	Other public	Forest industry	Other private	All owners
		Thousand board feet, Scribner rule		
Softwood types:				
Douglas-fir	0	0	21,127	21,127
Redwood	2,018	0	55,198	57,216
Redwood / hardwood	0	12,230	33,465	45,695
Total	2,018	12,230	109,790	124,037
Hardwood types:				
Pacific madrone / softwood	0	0	3,405	3,405
Tanoak / softwood	0	17,147	46,755	63,903
Coast live oak	0	0	12,261	12,261
Coast live oak / softwood	0	0	4,538	4,538
Canyon live oak	0	0	959	959
Blue oak / softwood	0	0	11	11
Willow	0	0	106	106
California-laurel	0	0	4,387	4,387
Total	0	17,147	72,423	89,570
Nonstocked [c]	117	0	0	117
Total, all types	2,135	29,377	182,213	213,725

0 = none found

[a] Totals may be off because of rounding; data subject to sampling error.

[b] Board-foot growth is not available on National Forest land.

[c] Nonstocked areas are less than 10 percent stocked with live trees. Includes recent clearcuts scheduled for planting.

Table 21-Average annual mortality of growing stock on timberland, by forest type and owner class, Central Coast Resource Area, California, 1994 [a b]

Forest type	National Forest [c]	Other public	Forest industry	Other private	All owners
			Thousand cubic feet		
Softwood types:					
Knobcone pine / hardwood	0	0	0	38	38
Douglas-fir	0	0	0	551	551
Redwood	0	16	0	548	564
Redwood / hardwood	0	0	136	728	864
Total	0	16	136	1,865	2,017
Hardwood types:					
Pacific madrone / softwood	0	0	0	129	129
Tanoak / softwood	0	0	538	921	1,459
Coast live oak	0	0	0	857	857
Coast live oak / softwood	0	0	0	111	111
Canyon live oak	0	0	0	228	228
Blue oak / softwood	0	0	0	4	4
Willow	0	0	0	6	6
California-laurel	0	0	0	439	439
Total	0	0	538	2,696	3,234
Nonstocked [d]	0	8	0	0	8
Total, all types	0	24	674	4,561	5,259

0 = none found
[a] Totals may be off because of rounding; data subject to sampling error.
[b] Data for the National Forest were updated to 1992; data for other owners were collected during 1991-94.
[c] Mortality was not detected on National Forest land.
[d] Nonstocked areas are less than 10 percent stocked with live trees. Rrecent clearcuts scheduled for planting are included.

Table 22--Average annual mortality of sawtimber on timberland outside the National Forest, by forest type and owner class, Central Coast Resource Area, California, 1994 [a b]

Forest type	Other public	Forest industry	Other private	All owners
		Thousand board feet, Scribner rule		
Softwood types:				
Douglas-fir	0	0	2,247	2,247
Redwood	61	0	2,673	2,733
Redwood / hardwood	0	501	3,030	3,531
Total	61	501	7,949	8,511
Hardwood types:				
Pacific madrone / softwood	0	0	405	405
Tanoak / softwood	0	1,418	3,265	4,684
Coast live oak	0	0	3,595	3,595
Coast live oak / softwood	0	0	351	351
Canyon live oak	0	0	422	422
Blue oak / softwood	0	0	4	4
Willow	0	0	19	19
California-laurel	0	0	1,267	1,267
Total	0	1,418	9,329	10,747
Nonstocked [c]	30	0	0	30
Total, all types	91	1,920	17,279	19,289

0 = none found
[a] Totals may be off because of rounding; data subject to sampling error.
[b] Board-foot mortality is not available on National Forest land.
[c] Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

Table 23--Land area, by county and land class (metric), Central Coast Resource Area, California, 1994 [a] [b]

County	Forest land					Non-forest	All land [c]
	Timberland	Reserved timberland	Available other forest	Reserved other forest	Total forest		
	Thousand hectares						
Alameda	0	0	37	8	46	145	191
Contra Costa	0	0	11	4	16	171	187
Marin	8	15	16	5	44	91	135
Monterey	11	7	379	34	431	429	860
San Benito	4	0	150	7	161	198	360
San Francisco	0	0	0	0	0	12	12
San Luis Obispo	0	1	292	14	306	550	856
San Mateo	22	10	19	10	61	55	117
Santa Barbara	0	4	350	8	362	300	662
Santa Clara	3	3	141	24	171	163	334
Santa Cruz	63	11	12	3	90	25	115
Solano	0	0	17	1	18	197	214
Ventura	13	1	275	13	301	177	478
Total	124	52	1,699	132	2,007	2,514	4,522

0 = none found
[a] Totals may be off because of rounding; data subject to sampling error.
[b] Data for the National Forest were updated to 1992; data for other owners were collected during 1991-94.
[c] Source: U.S. Department of Commerce 1990.

Table 24--Area of timberland, by owner class and stand-size class (metric), Central Coast Resource Area, California, 1994 [a] [b]

Owner	Sawtimber	Poletimber	Seedling-sapling	Not classified [c]	All classes
	Thousand hectares				
National Forest	13	2	0	7	22
Other public	--	0	0	2	3
Forest industry	9	0	0	0	9
Other private	85	0	5	0	90
All owners	108	2	5	10	124

-- = less than 500 hectares, 0 = none found
[a] Totals may be off because of rounding; data subject to sampling error.
[b] Data for the National Forest were updated to 1992; data for other owners were collected during 1991-94.
[c] Stand-size class was not determined for nonstocked stands, and for some softwood types on National Forest land.

Table 25--Area of reserved timberland and other forest land, by forest type and owner class, Central Coast Resource Area, California, 1994 [a b]

Land class and forest type	National Forest	Other public	Forest industry	Other private	All owners
			Thousand acres		
Reserved timberland:					
Softwood types--					
Jeffrey pine	4	0	0	0	4
Ponderosa pine	3	0	0	0	3
Coulter pine	8	0	0	0	8
Bishop pine	0	7	0	--	7
Douglas-fir	4	--	0	0	4
Redwood	6	35	0	--	41
Mixed conifer	0	42	0	--	43
Other softwoods	0	4	0	0	6
Total	25	88	0	1	114
Hardwood types--					
Tanoak	0	4	0	0	4
Other hardwood types	0	11	0	--	11
Total	0	15	0	--	15
Total, reserved timberland	25	103	0	1	129
Reserved other forest:					
Cypress	1	0	0	0	1
Pinyon-juniper	14	--	0	0	14
Gray pine	0	--	0	0	--
Tanoak	60	0	0	0	60
Oaks	17	99	0	--	117
Other hardwood types	0	3	0	--	3
Chaparral	0	130	0	--	130
Total, reserved other forest	92	232	0	1	325
Total, reserved forest land	117	335	0	2	454
Available other forest:					
Softwood types--					
Knobcone pine	0	0	0	3	3
Coulter pine	9	0	0	0	9
Jeffrey pine	62	0	0	0	62
Gray pine	0	0	0	27	27
Cypress	--	0	0	8	8
Pinyon-juniper	146	0	0	4	150
Total	217	0	0	42	259
Hardwood types--					
Bigleaf maple	0	0	3	0	3
Pacific madrone	0	0	0	8	8
Eucalyptus	0	0	0	8	8
Tanoak	9	0	0	0	9
Sycamore	0	7	0	0	7
California-laurel	0	0	0	18	18
Oaks	68	136	42	1,087	1,330
Total	77	142	44	1,121	1,383
Chaparral	1,170	325	20	1,017	2,532
Unclassified	0	0	0	25	25
Total, available other forest	1,464	467	64	2,204	4,199

-- = less than 500 acres, 0 = none found

[a] Totals may be off because of rounding; data subject to sampling error.

[b] Data for the National Forest were updated to 1992; data for other owners were collected during 1991-94.

Table 26--Area, net volume of growing stock, and net volume of sawtimber on timberland, by stand age and owner class, Central Coast Resource Area, California, 1994 [a] [b]

Stand age	National Forest			Other public			Forest industry			Other private			All owners		
	Area	Growing stock volume	Sawtimber volume, Scribner rule	Area	Growing stock volume	Sawtimber volume, Scribner rule	Area	Growing stock volume	Sawtimber volume, Scribner rule	Area	Growing stock volume	Sawtimber volume, Scribner rule	Area	Growing stock volume	Sawtimber volume, Scribner rule
	Thousand acres	*Thousand cubic feet*	*Thousand board feet*	*Thousand acres*	*Thousand cubic feet*	*Thousand board feet*	*Thousand acres*	*Thousand cubic feet*	*Thousand board feet*	*Thousand acres*	*Thousand cubic feet*	*Thousand board feet*	*Thousand acres*	*Thousand cubic feet*	*Thousand board feet*
Even-aged:															
0-9	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
10-19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-29	0	0	0	0	0	0	0	0	0	2	1,433	5,057	2	1,433	5,057
30-39	0	0	0	0	0	0	0	0	0	5	11,226	53,770	5	11,226	53,770
40-49	0	0	0	0	0	0	0	0	0	10	3,498	0	10	3,498	0
50-59	0	0	0	0	0	0	0	0	0	36	246,442	1,070,845	36	246,442	1,070,845
60-69	0	0	0	0	0	0	12	104,544	431,543	5	25,380	61,291	17	129,923	492,834
70-79	0	0	0	1	18,551	75,012	0	0	0	10	54,543	268,427	11	73,094	343,440
80-89	6	9,625	40,954	0	0	0	0	0	0	18	76,040	317,896	24	85,665	358,850
90-99	0	0	0	0	0	0	0	0	0	22	207,793	1,046,342	22	207,793	1,046,342
100-109	4	9,761	39,322	0	0	0	0	0	0	4	19,694	106,422	9	29,455	145,744
110-119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120-129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130-139	4	16,011	85,343	0	0	0	0	0	0	0	0	0	4	16,011	85,343
140-149	2	5,086	31,936	0	0	0	0	0	0	0	0	0	2	5,086	31,936
150-159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
160-169	2	10,419	64,405	0	0	0	0	0	0	0	0	0	2	10,419	64,405
170-179	8	20,698	122,665	0	0	0	0	0	0	0	0	0	8	20,698	122,665
180-189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
190-199	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200-299	27	157,381	920,710	0	0	0	0	0	0	0	0	0	27	157,381	920,710
300 +	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Uneven-aged:	0	0	0												
< 100	0	0	0	0	0	0	10	51,772	233,534	65	337,374	1,376,798	74	389,146	1,610,331
100 +	0	0	0	0	0	0	0	0	0	46	531,403	2,963,510	46	531,403	2,963,510
Nonstocked [c]	0	0	0	6	1,035	4,154	0	0	0	0	0	0	6	1,035	4,154
Total, all ages	55	228,981	1,305,335	7	19,586	79,166	22	156,316	665,077	223	1,514,826	7,270,357	307	1,919,709	9,319,935

0 = none found

[a] Totals may be off because of rounding, data subject to sampling error.

[b] National Forest data were updated to 1992; data for all other owners were collected in 1991-94.

[c] Nonstocked areas are less than 10 percent stocked with live trees. Recent clearcuts scheduled for planting are included.

Table 27--Net volume of growing stock and sawtimber on timberland, by county, owner class, and species group, Central Coast Resource Area, California, 1994 [a b]

County	National Forest			Other public			Forest industry			Other private			All owners		
	Softwood species	Hardwood species	All species	Softwood species	Hardwood species	All species	Softwood species	Hardwood species	All species	Softwood species	Hardwood species	All species	Softwood species	Hardwood species	All species
							Million cubic feet								
Growing stock:															
Marin	0	0	0	0	0	0	0	0	0	104	11	115	104	11	115
Monterey	96	35	131	0	0	0	0	0	0	0	1	1	96	36	132
San Benito	0	0	0	1	0	1	0	0	0	0	23	23	1	23	24
San Mateo	0	0	0	0	0	0	0	0	0	246	86	332	246	86	332
Santa Barbara	--	--	1	0	0	0	0	0	0	0	0	0	--	--	1
Santa Clara	0	0	0	0	0	0	0	0	0	72	9	81	72	9	81
Santa Cruz	0	0	0	19	0	19	115	41	156	678	285	963	812	326	1,138
Ventura	84	13	97	0	0	0	0	0	0	0	0	0	84	13	97
Total	181	49	229	20	0	20	115	41	156	1,100	415	1,515	1,415	505	1,920
							Million board feet, Scribner rule								
Sawtimber:															
Marin	0	0	0	0	0	0	0	0	0	578	8	586	578	8	586
Monterey	622	112	733	0	0	0	0	0	0	0	1	1	622	113	734
San Benito	0	0	0	4	0	4	0	0	0	0	39	39	4	39	43
San Mateo	0	0	0	0	0	0	0	0	0	1,347	188	1,535	1,347	188	1,535
Santa Barbara	2	1	3	0	0	0	0	0	0	0	0	0	2	1	3
Santa Clara	0	0	0	0	0	0	0	0	0	420	34	454	420	34	454
Santa Cruz	0	0	0	75	0	75	554	112	666	3,821	834	4,655	4,450	946	5,396
Ventura	530	38	569	0	0	0	0	0	0	0	0	0	530	38	569
Total	1,154	151	1,305	79	0	79	554	112	666	6,166	1,104	7,270	7,953	1,367	9,320
							Million cubic meters								
Growing stock:															
Marin	0	0	0	0	0	0	0	0	0	3	--	3	3	--	3
Monterey	3	1	4	0	0	0	0	0	0	0	--	--	3	1	4
San Benito	0	0	0	--	0	--	0	0	0	0	1	1	--	1	1
San Mateo	0	0	0	0	0	0	0	0	0	7	2	9	7	2	9
Santa Barbara	--	--	--	0	0	0	0	0	0	0	0	0	--	--	--
Santa Clara	0	0	0	0	0	0	0	0	0	2	--	2	2	--	2
Santa Cruz	0	0	0	1	0	1	3	1	4	19	8	27	23	9	32
Ventura	2	--	3	0	0	0	0	0	0	0	0	0	2	--	3
Total	5	1	6	1	0	1	3	1	4	31	12	43	40	14	54

-- = less than 500,000 cubic feet or 500,000 cubic meters; 0 = none found

[a] Totals may be off because of rounding; data subject to sampling error.

[b] Data for the National Forest were updated to 1992; data for other owners were collected during 1991-94.

Table 28--Current net annual growth, average annual mortality, and average annual removals of growing stock on timberland, by species and owner class, Central Coast Resource Area, California, 1994 [a] [b]

Species	National Forest [c]		Outside the National Forest												All owners [c]	
			Other public			Forest industry			Other private			Total, outside the National Forest				
	Current net annual growth	Average annual mortality	Current net annual growth	Average annual mortality	Average annual removals	Current net annual growth	Average annual mortality	Average annual removals	Current net annual growth [d]	Average annual mortality	Average annual removals	Current net annual growth [d]	Average annual mortality	Average annual removals	Current net annual growth [d]	Average annual mortality
	Thousand cubic feet															
Softwoods:																
White fir	109	0	0	0	0	0	0	0	29	23	0	29	23	0	138	23
Knobcone pine	0	0	0	0	0	0	0	0	318	39	0	318	39	0	318	39
Coulter pine	221	0	0	0	0	0	0	0	0	0	0	0	0	0	221	0
Jeffrey pine	362	0	0	0	0	0	0	0	0	0	0	0	0	0	362	0
Sugar pine	22	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0
Ponderosa pine	6	0	24	8	0	0	0	0	31	109	0	55	117	0	62	117
Monterey pine	0	0	0	0	0	0	0	0	413	341	0	413	341	0	413	341
Douglas-fir	0	0	0	0	0	1,121	84	0	5,514	672	1,528	6,635	755	1,528	6,635	755
Redwood	289	0	403	16	0	3,439	149	500	17,323	650	3,401	21,165	815	3,901	21,453	815
Total	1,008	0	427	24	0	4,560	232	500	23,627	1,833	4,929	28,614	2,089	5,429	29,623	2,089
Hardwoods:																
Bigleaf maple	0	0	0	0	0	0	0	0	42	12	0	42	12	0	42	12
Pacific madrone	0	0	0	0	0	192	211	0	807	509	75	999	719	75	999	719
Eucalyptus	0	0	0	0	0	0	0	0	- 6	95	0	- 6	95	0	- 6	95
Tanoak	0	0	0	0	0	927	217	0	3,463	790	1,025	4,390	1,007	1,025	4,390	1,007
Coast live oak	0	0	0	0	0	80	14	0	1,385	539	272	1,465	552	272	1,465	552
Canyon live oak	0	0	0	0	0	0	0	0	202	205	0	202	205	0	202	205
Blue oak	0	0	0	0	0	0	0	0	10	4	0	10	4	0	10	4
Oregon white oak	0	0	0	0	0	0	0	0	- 3	17	0	- 3	17	0	- 3	17
California black oak	0	0	0	0	0	0	0	0	14	8	0	14	8	0	14	8
California-laurel	0	0	0	0	0	0	0	0	1,032	552	0	1,032	552	0	1,032	552
Total	0	0	0	0	0	1,199	442	0	6,947	2,729	1,371	8,146	3,170	1,371	8,146	3,170
All species	1,008	0	427	24	0	5,759	674	500	30,574	4,561	6,300	36,760	5,259	6,800	37,768	5,259

-- = less than 500 cubic feet; 0 = none found

[a] Totals may be off because of rounding, data subject to sampling error.

[b] Data for the National Forest were updated to 1992; data for other owners were collected during 1991-94.

[c] Annual removal volume and hardwood growth volume are not available for the National Forest.

[d] Negative net annual growth is the result of annual mortality exceeding gross annual growth.

Table 29--Current net annual growth, average annual mortality, and average annual removals of sawtimber on timberland outside the National Forest, by species and owner class, Central Coast Resource Area, California, 1994 [a b]

Species	Other public			Forest industry			Other private			All owners		
	Current net annual growth	Average annual mortality	Average annual removals	Current net annual growth	Average annual mortality	Average annual removals	Current net annual growth	Average annual mortality	Average annual removals	Current net annual growth	Average annual mortality	Average annual removals
	Thousand board feet, Scribner rule											
Softwoods:												
White fir	0	0	0	0	0	0	281	91	0	281	91	0
Knobcone pine	0	0	0	0	0	0	148	94	0	148	94	0
Ponderosa pine	117	30	0	0	0	0	276	753	0	394	783	0
Monterey pine	0	0	0	0	0	0	3,430	2,318	0	3,430	2,318	0
Douglas-fir	0	0	0	6,407	316	0	36,826	3,635	8,581	43,233	3,951	8,581
Redwood	2,018	61	0	18,730	678	2,699	108,027	3,387	21,120	128,775	4,125	23,819
Total	2,135	91	0	25,137	994	2,699	148,989	10,276	29,701	176,260	11,361	32,399
Hardwoods:												
Pacific madrone	0	0	0	1,102	447	0	3,412	1,311	0	4,514	1,758	0
Eucalyptus	0	0	0	0	0	0	101	556	0	101	556	0
Tanoak	0	0	0	2,780	436	0	21,566	2,342	3,558	24,346	2,777	3,558
Coast live oak	0	0	0	359	43	0	3,951	978	354	4,310	1,022	354
Canyon live oak	0	0	0	0	0	0	680	390	0	680	390	0
Blue oak	0	0	0	0	0	0	11	4	0	11	4	0
Oregon white oak	0	0	0	0	0	0	19	32	0	19	32	0
California black oak	0	0	0	0	0	0	54	22	0	54	22	0
California-laurel	0	0	0	0	0	0	3,430	1,368	0	3,430	1,368	0
Total	0	0	0	4,240	926	0	33,224	7,002	3,912	37,465	7,928	3,912
All species	2,135	91	0	29,377	1,920	2,699	182,213	17,279	33,612	213,725	19,289	36,311

0 = none found

[a] Totals may be off because of rounding, data subject to sampling error.

[b] Board-foot growth, mortality, and removal volume are not available for the National Forest.

Table 30--Changes in timberland area outside the National Forest, by owner class, Central Coast Resource Area, California, 1984, 1994 [a] [b]

Description of change	Other public	Forest industry	Other private	All owners
		Thousand acres		
Timberland area published in 1984 [c]	8	24	255	287
New estimate of timberland area for 1984, based on remeasured plots only [d]	8	39	240	287
Adjustments to 1984 area:				
Updates to owner or land class [e]	- 8	- 8	24	8
Adjusted timberland area for 1984 [f]	**0**	**31**	**264**	**295**
Area change (during 1984 -1994) due to:				
Changes in inventory area--				
To reserved timberland [g]	0	- 9	- 27	- 36
Timberland area in 1994, based on remeasured plots only [f]	**0**	**22**	**237**	**260**
Timberland area in 1994, based on all sample plots [h]	7	22	223	252

[a] Totals may be off because of rounding; data subject to sampling error.
[b] Negative values are losses of timberland and positive values are gains in timberland. Losses are shown by the 1984 owner, and gains are shown by the 1994 owner.
[c] Source: Colclasure and others 1986.
[d] The modified sampling design for the 1991-94 inventory produced a different set of plots for the sample, which includes existing plots that were remeasured and new plots. Only remeasured plots were used to create this table. The 1984 data were recompiled by using the current (1994) procedures. Updates to the original classification of owner and land class were incorporated into the new version of the 1984 data. The adjusted 1984 data also reflect the new Bureau of Census (1990) land area figures.
[e] The classification of owner or land class assigned to a plot in 1984 was verified during the 1994 inventory. In some cases, updates were made to the 1984 data when new or more accurate information was available.
[f] Use the adjusted 1984 data and the 1994 remeasured plot data (bold type in table) when analyzing for periodic change.
[g] The 36,000 acres became parks and open space.
[h] All sample plots include remeasured plots and plots that are new to the inventory. All sample plots are used for the current estimates of area displayed in tables 1-29.

Table 31--Changes in net volume of growing stock on timberland outside the National Forest, by species group and owner class, Central Coast Resource Area, California, 1984, 1994 [a b c]

Description of change	Softwood species				Hardwood species			
	Other public	Forest industry	Other private	All owners	Other public	Forest industry	Other private	All owners
	Million cubic feet							
Volume published in 1984 [d]	5	91	1,249	1,345	22	36	488	546
New estimate of volume for 1984, based on remeasured plots only [e]	5	150	1,064	1,219	22	59	426	507
Adjustments to 1984 volume:								
Updates to owner or land class [f]	- 5	- 41	46	--	- 22	-15	37	--
Adjusted volume for 1984 [g]	**--**	**109**	**1,110**	**1,219**	**--**	**44**	**463**	**507**
Volume changes due to:								
Change in inventory area--								
To reserved timberland	--	- 34	- 105	- 139	--	- 19	- 84	- 103
Growth, mortality, and harvest--								
Periodic gross growth	--	45	293	338	--	16	96	111
Periodic mortality	--	--	- 22	- 22	--	--	- 33	- 33
Periodic removals	--	- 6	- 77	- 82	--	--	- 27	- 27
Net change	--	40	194	234	--	16	35	51
Total volume in 1994, based on remeasured plots only [g]	**--**	**115**	**1,199**	**1,314**	**--**	**41**	**414**	**455**
Total volume in 1994, based on all sample plots [h]	20	115	1,100	1,235	--	41	415	456

-- = none found or less than 500,000 cubic feet

[a] Includes growing-stock trees ≥ 5 inches d.b.h.

[b] Totals may be off because of rounding; data subject to sampling error.

[c] Negative values are losses of volume and positive values are gains in volume. Losses are shown by the 1984 owner and gains are shown by the 1994 owner.

[d] Source: Colclasure and others 1986.

[e] The modified sampling design for the 1991-94 inventory produced a different set of plots for the sample, which includes existing plots that were remeasured and new plots. Only remeasured plots were used to create this table. The 1984 data were recompiled by using the current (1994) procedures. Updates to the original classification of owner and land class were incorporated into the new version of the 1984 data. The adjusted 1984 data also reflect the new Bureau of Census (1990) land area figures.

[f] The classification of owner or land class assigned to a plot in 1984 was verified during the 1994 inventory. In some cases, updates were made to the 1984 data when new or more accurate information was available.

[g] Use the adjusted 1984 data and the 1994 remeasured plot data (bold type in table) when analyzing for periodic change.

[h] All sample plots include remeasured plots and plots that are new to the inventory. All sample plots are used for the current estimates of volume displayed in tables 1-29.

Table 32--Changes in net volume of sawtimber on timberland outside the National Forest, by species group and owner class, Central Coast Resource Area, California, 1984, 1994 [a b c]

Description of change	Softwood species				Hardwoods species			
	Other public	Forest industry	Other private	All owners	Other public	Forest industry	Other private	All owners
	Million board feet, Scribner rule							
Volume published in 1984 [d]	34	473	6,885	7,392	58	75	1,383	1,516
New estimate of volume for 1984, based on remeasured plots only [e]	34	742	5,921	6,697	58	114	1,040	1,212
Adjustments to 1984 volume:								
Updates to owner or land class [f]	- 34	- 205	239	0	- 58	- 33	91	0
Adjusted volume for 1984 [g]	**--**	**537**	**6,160**	**6,697**	**0**	**81**	**1,131**	**1,212**
Volume changes due to:								
Changes in inventory area--								
To reserved timberland	--	- 202	- 588	- 790	--	- 34	- 228	- 262
Growth, mortality, and harvest--								
Periodic gross growth	--	248	1,766	2,014	--	64	279	343
Periodic mortality	--	--	- 129	- 129	--	--	- 94	- 94
Periodic removals	--	- 30	- 459	- 489	--	--	- 68	- 68
Net change	--	218	1,178	1,396	--	64	117	181
Total volume in 1994, based on remeasured plots only [g]	**--**	**553**	**6,750**	**7,303**	**--**	**111**	**1,020**	**1,131**
Total volume in 1994, based on all sample plots [h]	79	554	6,166	6,799	--	112	1,104	1,216

-- = none found or less than 500,000 board feet

[a] Includes sawtimber softwood trees ≥ 9 inches d.b.h. and sawtimber hardwood trees ≥ 11 inches d.b.h.

[b] Totals may be off because of rounding; data subject to sampling error.

[c] Negative values are losses of volume and positive values are gains in volume. Losses are shown by the 1984 owner and gains are shown by the 1994 owner.

[d] Source: Colclasure and others 1986.

[e] The modified sampling design for the 1991-94 inventory produced a different set of plots for the sample, which includes existing plots that were remeasured and new plots. Only remeasured plots were used to create this table. The 1984 data were recompiled by using the current (1994) procedures. Updates to the original classification of owner and land class were incorporated into the new version of the 1984 data. The adjusted 1984 data also reflect the new Bureau of Census (1990) land area figures.

[f] The classification of owner or land class assigned to a plot in 1984 was verified during the 1994 inventory. In some cases, updates were made to the 1984 data when new or more accurate information was available.

[g] Use the adjusted 1984 data and the 1994 remeasured plot data (bold type in table) when analyzing for periodic change.

[h] All sample plots include remeasured plots and plots that are new to the inventory. All sample plots are used for the current estimates of volume displayed in tables 1-29.

Table 33--Area, net volume of growing stock, and net volume of sawtimber on timberland outside the National Forest, by forest type, Central Coast Resource Area, California, 1984, 1994 [a] [b]

Forest type	Outside the National Forest					
	1981-84			1991-94		
	Area	Growing stock	Sawtimber	Area	Growing stock	Sawtimber
	Thousand acres	*Million cubic feet*	*Million board feet*	*Thousand acres*	*Million cubic feet*	*Million board feet*
Softwood types:						
Redwood--						
Redwood	35	317	1,800	51	499	2,785
Redwood / hardwood	74	602	2,922	49	447	2,200
Total	109	919	4,722	100	947	4,985
Douglas-fir--						
Douglas-fir	21	57	201	30	131	604
Douglas-fir / hardwood	8	37	190	0	0	0
Total	30	94	391	30	131	604
Knobcone pine / hardwood	10	1	0	10	4	0
Total, softwood types	149	1,014	5,113	140	1,081	5,589
Hardwood types:						
Pacific madrone	8	30	117	8	33	145
Tanoak	21	205	938	0	0	0
Tanoak / softwood	25	104	390	37	329	1,522
Coast live oak	60	249	1,070	42	157	711
Canyon live oak	21	89	165	21	91	296
California-laurel	12	37	117	12	51	171
Total, hardwood types	147	712	2,796	120	688	2,845
Total, all types	295	1,726	7,909	260	1,769	8,434

0 = none found

[a] Totals may be off because of rounding; data subject to sampling error.

[b] Data are summarized from remeasured plots only. All data from the 1981-84 inventory were recompiled with the same procedures and methods used in the 1991-94 inventory. See text for discussion of data used for change analysis.

Table 34--Net volume of growing stock and net volume of sawtimber on timberland outside the National Forest, by species and year, Central Coast Resource Area, California, 1984, 1994 [a] [b]

Species	Outside the National Forest			
	1981-84		1991-94	
	Growing stock	Sawtimber	Growing stock	Sawtimber
	Million cubic feet	*Million board feet*	*Million cubic feet*	*Million board feet*
Softwoods:				
White fir	4	18	5	20
Knobcone pine	4	19	6	23
Ponderosa pine	11	77	13	88
Monterey pine	59	390	72	493
Douglas-fir	206	1,120	241	1,342
Redwood	935	5,074	977	5,338
Total	1,219	6,697	1,314	7,303
Hardwoods:				
Bigleaf maple	0	0	1	0
Pacific madrone	102	249	74	188
Tanoak	151	433	151	465
Coast live oak	103	214	90	180
Canyon live oak	80	153	79	156
Oregon white oak	2	3	2	4
California black oak	5	11	3	8
California-laurel	64	149	55	131
Total	507	1,212	455	1,131
All species	1,726	7,909	1,769	8,436

0 = none found

[a] Totals may be off because of rounding; data subject to sampling error.

[b] Data are from remeasured plots only. All data from the 1981-84 inventory were recompiled with the same procedures and methods used in the 1991-94 inventory. See text for discussion of data used for the change analysis.

Table 35--Timber harvest volume, by year and county, Central Coast Resource Area, California, 1948-77 [a]

Year	County [b]					
	Marin and Solano	Monterey and San Luis Obispo	San Mateo	Santa Clara, Contra Costa, and San Benito	Santa Cruz	Total
	Thousand board feet, local scale [c]					
1948	0	1,918	17,762	0	8,452	28,132
1949	0	1,493	16,500	0	4,911	22,904
1950	180	2,355	17,520	0	2,959	23,014
1951	0	1,987	19,795	0	5,692	27,474
1952	620	950	20,371	0	4,684	26,625
1953	0	650	21,803	75	4,073	26,601
1954	719	221	20,081	0	8,018	29,039
1955	10,010	535	24,644	500	20,127	55,816
1956	5,256	2,075	20,811	1,750	19,072	48,964
1957	2,595	4,525	17,013	1,555	14,877	40,565
1958	8,643	7,212	19,213	632	28,668	64,368
1959	25,906	4,195	24,256	1,309	21,964	77,630
1960	9,165	4,579	19,046	3,035	22,778	58,603
1961	3,890	4,637	19,698	2,110	23,686	54,021
1962	1,575	6,331	21,058	1,504	26,850	57,318
1963	9,076	6,103	37,016	3,565	12,518	68,278
1964	2,095	3,461	32,642	1,732	20,596	60,526
1965	4,021	3,782	25,791	1,866	20,763	56,223
1966	948	6,821	24,322	10	18,483	50,584
1967	2	8,559	15,849	35	20,570	45,015
1968	117	4,292	22,160	125	19,989	46,683
1969	8	718	21,718	3,790	34,900	61,134
1970	341	2,870	14,689	30	19,418	37,348
1971	690	2,920	21,659	34	13,489	38,792
1972	105	1,808	6,381	757	21,245	30,296
1973	0	612	5,292	4,344	19,692	29,940
1974	12	3,192	5,583	60	21,737	30,584
1975	0	20	6,671	200	10,335	17,226
1976	523	315	5,843	903	12,619	20,203
1977	534	208	6,845	483	14,149	22,219

[a] The harvest data in this table include no cull, fuelwood, hardwood chips or logs, poles, pilings, or posts.
[b] Some counties were combined in the data we received from the California Department of Forestry.
[c] Various log rules were used in California; no attempt was made to convert the data to a common base; however, most timber companies in the Central Coast Resource Area use the short-log (16-foot) Scribner rule.

Source: California Department of Forestry 1948-77.

Table 36--Timber harvest volume, by year, owner group, and county, Central Coast Resource Area, California, 1978-95 [a]

Year	Owner group	County [b] Marin and Solano	Monterey and San Luis Obispo	San Mateo	Santa Clara, Contra Costa, and San Benito	Santa Cruz	Total
		Thousand board feet, local scale [c]					
1978	Private	3	37	5,722	38	14,042	19,842
	Public	0	120	0	0	692	812
	Total	3	157	5,722	38	14,734	20,654
1979	Private	0	0	7,735	0	22,775	30,510
	Public	0	130	0	0	0	130
	Total	0	130	7,735	0	22,775	30,640
1980	Private	0	0	3,506	0	13,730	17,236
	Public	0	0	0	297	0	297
	Total	0	0	3,506	297	13,730	17,533
1981	Private	0	0	6,446	608	11,176	18,230
	Public	0	0	0	0	0	0
	Total	0	0	6,446	608	11,176	18,230
1982	Private	0	0	4,880	809	6,550	12,239
	Public	0	0	0	0	0	0
	Total	0	0	4,880	809	6,550	12,239
1983	Private	0	1,271	5,162	571	10,418	17,422
	Public	0	0	108	0	0	108
	Total	0	1,271	5,270	571	10,418	17,530
1984	Private	0	1,378	2,489	1,551	16,399	21,817
	Public	0	0	0	0	737	737
	Total	0	1,378	2,489	1,551	17,136	22,554
1985	Private	0	0	7,277	2,763	9,854	19,894
	Public	0	0	0	0	10,362	10,362
	Total	0	0	7,277	2,763	20,216	30,256
1986	Private	0	0	10,473	4,474	6,187	21,134
	Public	0	0	0	0	863	863
	Total	0	0	10,473	4,474	7,050	21,997
1987	Private	0	36	6,876	4,944	15,475	27,331
	Public	0	0	0	0	267	267
	Total	0	36	6,876	4,944	15,742	27,598
1988	Private	0	0	13,549	2,315	15,235	31,099
	Public	0	0	1,108	-	12	1,120
	Total	0	0	14,657	2,315	15,247	32,219
1989	Private	0	0	10,339	3,862	16,610	30,811
	Public	0	0	0	0	0	0
	Total	0	0	10,339	3,862	16,610	30,811
1990	Private	11	0	7,949	4,824	17,166	29,950
	Public	0	0	0	0	968	968
	Total	11	0	7,949	4,824	18,134	30,918
1991	Private	0	0	6,993	990	19,204	27,187
	Public	0	0	0	0	176	176
	Total	0	0	6,993	990	19,380	27,363
1992	Private	0	0	9,330	2,227	16,545	28,102
	Public	0	0	0	0	6	6
	Total	0	0	9,330	2,227	16,551	28,108
1993	Private	0	0	8,720	5,022	23,392	37,134
	Public	0	0	0	0	327	327
	Total	0	0	8,720	5,022	23,719	37,461
1994	Private	0	0	7,540	1,671	22,942	32,153
	Public	0	0	0	0	0	0
	Total	0	0	7,540	1,671	22,942	32,153
1995	Private	3	0	3,416	1,264	26,596	31,276
	Public	0	0	0	0	532	532
	Total	3	0	3,416	1,264	27,128	31,808

[a] The harvest data in this table include no cull, fuelwood, hardwood chips or logs, poles, pilings, or posts.
[b] Some counties were combined in the data we received from the California State Board of Equalization
[c] Various log rules were used in California; no attempt was made to convert the data to a common base; however, most timber companies in the Central Coast Resource Area use the short-log (16-foot) Scribner rule.
Source: California State Board of Equalization, Timber Tax Division 1978-95.

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Metric Equivalents

1 acre = 0.405 hectare
1 acre = 4046.86 square meters
1,000 acres = 404.7 hectares
1,000 cubic feet = 28.3 cubic meters
1 cubic foot per acre = 0.07 cubic meter per hectare
1 foot = 0.3048 meter
1 inch = 2.54 centimeters
1 mile = 1.609 kilometers

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Appendix A

Reference documentation for the 1991-94 inventory of California. Note that these are unpublished, in-house documents.

1. Field instructions for the 1991-94 inventory of California, 1992. 219 p. On file with: Pacific Resource Inventory, Monitoring, and Evaluation (PRIME) Program, Pacific Northwest Research Station, Portland, Oregon.

2. California photo-interpretation manual for California, 1981. On file with: Pacific Resource Inventory, Monitoring, and Evaluation (PRIME) Program, Pacific Northwest Research Station, Portland, Oregon.

3. California inventory procedures and techniques documentation for the 1991-94 forest inventory. On file with: Pacific Resource Inventory, Monitoring, and Evaluation (PRIME) Program, Pacific Northwest Research Station, Portland, Oregon.

4. Forest Inventory and Analysis User's Guide, U.S. Department of Agriculture, Forest Service, Region 5. June, 1995. On file with: Land Management Planning Staff (Remote Sensing Lab Team), Sacramento, California.

Appendix B

For more information about National Forest inventory procedures, contact the timber management staff at the following address:

USDA Forest Service, Pacific Southwest Region
Land Management Planning: Remote Sensing Lab
1920 20th St.
Sacramento, CA 95814

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Waddell, Karen L.; Bassett, Patricia M. 1997. Timber resource statistics for the central coast resource area of California. Resour. Bull. PNW-RB-221. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 45 p.

This report is a summary of timber resource statistics for the Central Coast Resource Area of California, which includes Alameda, Contra Costa, Marin, Monterey, San Benito, San Francisco, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Solano, and Ventura Counties. Data were collected as part of a statewide multiresource inventory. The inventory sampled private and public lands except reserved areas and National Forests. The National Forest System provided data from regional inventories of the Los Padres National Forest. Area information for parks and other reserves was obtained directly from the organizations managing these areas. Statistical tables summarize all ownerships and provide estimates of land area, timber volume, growth, mortality, and harvest. Estimates of periodic change of timberland area and timber volume are presented for all ownerships outside National Forests.

Keywords: Forest surveys, forest inventory, statistics (forest), timber resources, resources (forest), periodic change, trends, central coast, Alameda County, Contra Costa County, Marin County, Monterey County, San Benito County, San Francisco County, San Luis Obispo County, San Mateo County, Santa Barbara County, Santa Clara County, Santa Cruz County, Solano County, Ventura County, California.

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