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Timber Resource Statistics for the North Interior Resource Area of California

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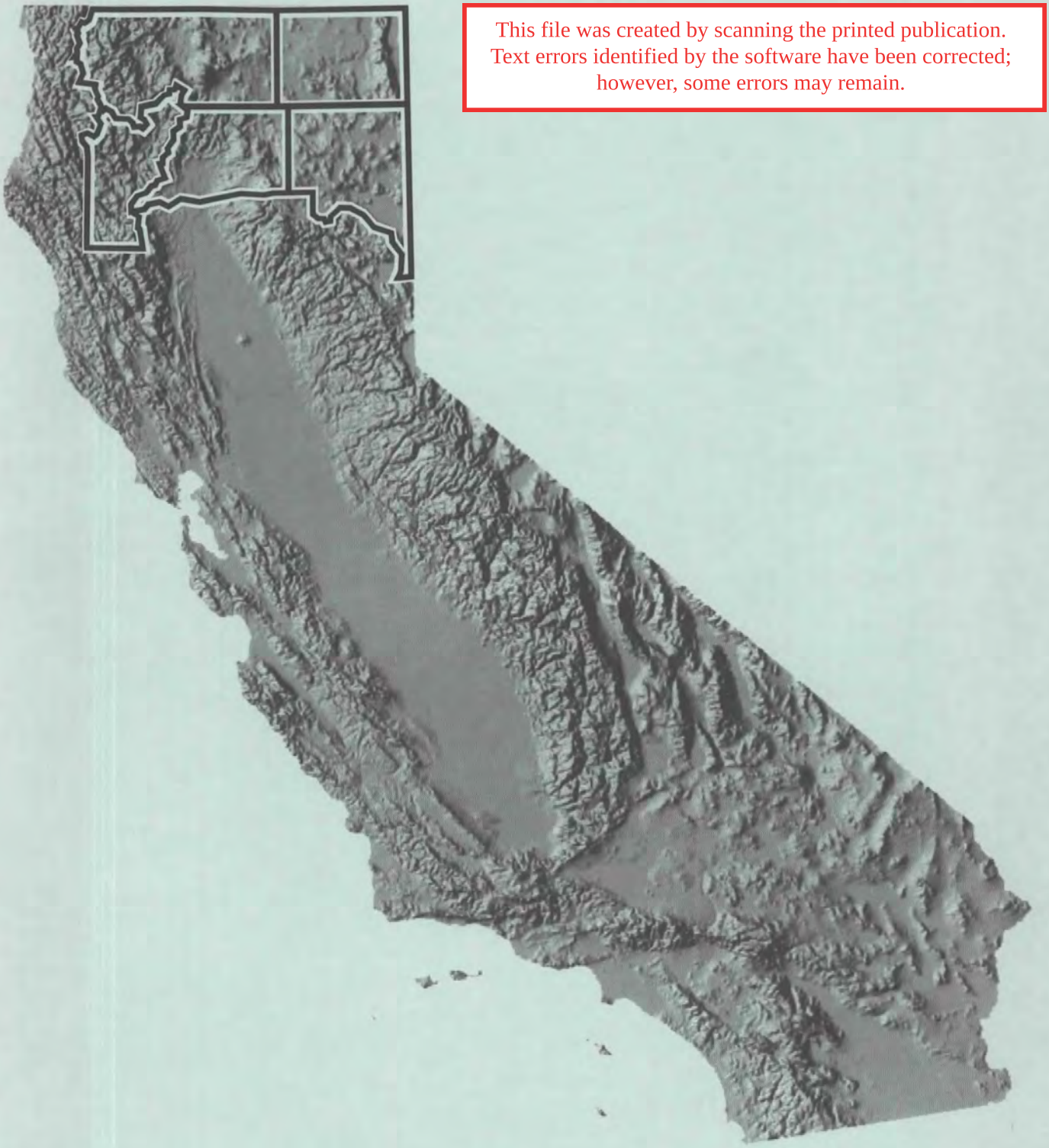

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Cover Map

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 North Interior Resource Area of California, which includes Lassen, Modoc, Shasta, Siskiyou, and Trinity 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 Lassen, Mendocino, Modoc, Six Rivers, Plumas, Shasta-Trinity, Rogue River, and Toiyabe National Forests. 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, north interior, Lassen County, Modoc County, Shasta County, Siskiyou County, Trinity County, California.

Summary

The North Interior Resource Area of California includes about 13.9 million acres of land in Lassen, Modoc, Shasta, Siskiyou, and Trinity Counties. Almost 69 percent of this land is forest land, with 43 percent or an estimated 5.9 million acres in timberland. The majority of timberland (about 62 percent) is publicly owned. Mixed-conifer and ponderosa pine forest types predominate in the North Interior Resource Area. Most of the 17.2 billion cubic feet of volume is in softwood forest types growing in stands of sawtimber-sized trees. Softwood species comprise an 87 percent of the total volume, with Douglas-fir, true firs, and ponderosa pine being the most prevalent across all ownerships. Volume in trees greater than 21 inches in diameter at breast height (d.b.h) is mainly from softwoods, and most of the hardwood volume is in trees less than 21 inches in d.b.h. On National Forest land, about 90 percent of the volume is found in forests with a stand age greater than 100 years; outside National Forests, most stands are less than 100 years old. 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 outside National Forests indicates that a net of 42,000 acres of timberland was transferred to National Forest ownership and 8,000 acres were converted to rights-of-way. During the 1984-94 period, total growing-stock volume increased by 671 million cubic feet (13 percent) primarily in Douglas-fir, white fir, and ponderosa pine. Softwood volume increased by about 12 percent and hardwood volume increased almost 17 percent. These changes in volume were due to growth exceeding mortality and harvest during the 10-year period.

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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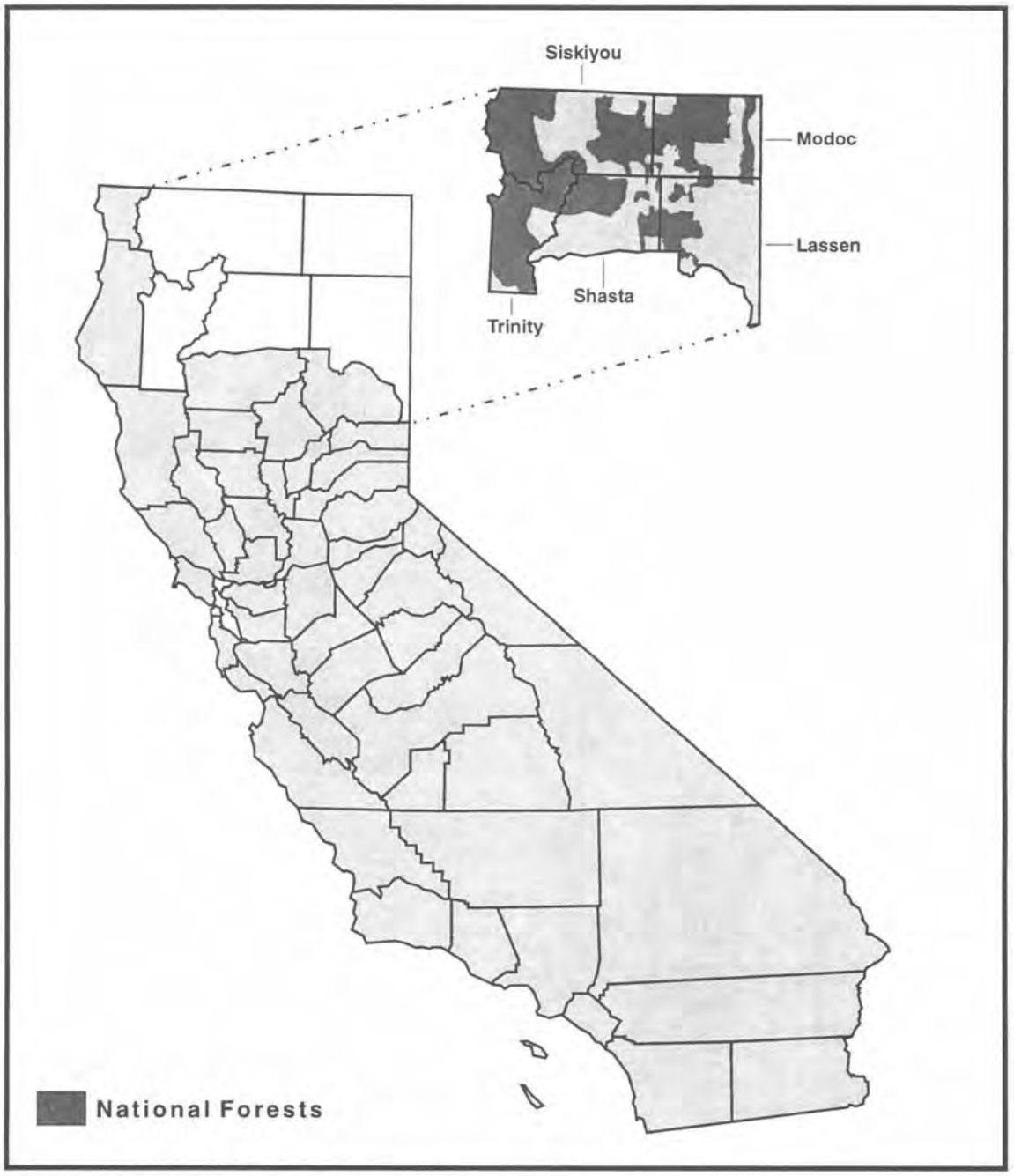

Figure 1-- Counties in the North Interior Resource Area of California.

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 five counties of the North Interior 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 National Forests in California since 1966. The earliest inventory carried out by the Pacific Northwest Research Station in the North Interior was reported by Bolsinger (1976, 1980). A second forest inventory was completed in 1984 (Colclasure and others 1986). The most recent inventory of the North Interior 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 for the Lassen, Mendocino, Modoc, Six Rivers, Plumas, and Shasta-Trinity National Forests administered by the Pacific Southwest Region (Region 5); a small part of the Rogue River National Forest administered by the Pacific Northwest Region (Region 6); and a small portion of the Toiyabe National Forest administered by the Intermountain Region (Region 4). Only National Forest area that falls within the five North Interior 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 National Forests. 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 National Forests.

Inventory Procedures

Land Outside National Forests

The North Interior 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 North Interior Resource Area, the primary sample was a grid of 14,604 photo plots established during the 1981-84 inventory and updated in 1991 for changes in ownership. The primary sample included 5,506 timberland photo plots that were examined in 1981 to classify the forest stand at the grid location.

The secondary sample consisted of 895 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 299 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 895 field plots in the 1991-94 inventory, we sampled 1,293 condition classes, of which 378 were timberland, 106 were oak-woodland, 126 were pinyon-juniper, 50 were chaparral, and the rest were nonforest.

Current estimates of area for timberland, other forest, and nonforest land are based on all 1,293 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 Klamath, Lassen, Mendocino, Modoc, Six Rivers, Plumas, and Shasta-Trinity National Forests. Data were collected in different years as follows: Lassen, 1995; Modoc, 1995; and Plumas, 1993. Older inventories for the Klamath, Mendocino, Shasta-Trinity, and Six Rivers National Forests were updated by the Region to 1992. Data for the Rogue River (Region 6) and Toiyabe (Region 4) National Forests were extracted primarily from the national timber inventory database developed for the 1992 Resources Planning Act (RPA) assessment (Powell and others 1994). Inventory designs and methods have changed over the years and may differ among the National Forests and Regions: details of National Forest inventories may be obtained from the timber management staff at each Regional office (see appendices A and B).

The following is a brief description of current inventory procedures for the Pacific Southwest Region. Individual inventories were conducted within the administrative boundaries of a 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 an entire National Forest. Plots were pinpricked 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 a 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 60,546 acres in the North Interior 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 National Forests

Changes in forest resources based on comparisons of statistics from this report with those published for the 1981-84 inventory of the North Interior 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 National Forests 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 National Forests 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 National Forests 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 North Interior Resource Area, outside National Forests, 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 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 (2,426 thousand acres) is within the range of 2,376 to 2,476 thousand acres.

The sample design in this inventory provides the highest precision when estimates are aggregated for the entire North Interior 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 National Forests, are displayed below:

Land class	Other public	Forest industry	Other private	All owners
		Thousand acres (± standard error)		
Timberland	150 ± 27	1,717 ± 53	559 ± 48	2,426 ± 50
Other forest	507 ± 32	120 ± 26	917 ± 45	1,545 ± 52
Nonforest	993 ± 48	125 ± 22	1,708 ± 54	2,826 ± 49

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

County	Timberland area	Softwood species volume	Hardwood species volume	Total volume
	Thousand acres (± standard error)	--------*Million cubic feet (± standard error)*---------		
Lassen	351 ± 23	649 ± 62	6 ± 4	655 ± 63
Modoc	241 ± 11	382 ± 43	21 ± 16	403 ± 47
Shasta	765 ± 27	1,660 ± 124	372 ± 51	2,032 ± 132
Siskiyou	656 ± 28	1,587 ± 163	94 ± 24	1,681 ± 162
Trinity	413 ± 15	858 ± 75	296 ± 39	1,154 ± 85
Total	2,426 ± 50	5,136 ± 230	789 ± 70	5,926 ± 233

Standard errors for estimates of timber volume, growth, and mortality, by species or forest type and owner class, on timberland outside National Forests 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	245 ± 66	3,867 ± 234	1,024 ± 131	5,136 ± 230
Hardwood species	68 ± 23	354 ± 50	367 ± 51	790 ± 70
Total	314 ± 82	4,221 ± 240	1,391 ± 154	5,926 ± 233
Net volume:				
Softwood forest types	257 ± 82	3,998 ± 246	1,007 ± 150	5,262 ± 249
Hardwood forest types	56 ± 36	217 ± 65	384 ± 73	657 ± 102
Total [1]	314 ± 82	4,221 ± 240	1,391 ± 154	5,926 ± 233
		Thousand cubic feet (volume ± standard error)		
Net annual growth:				
Softwood forest types	4,732 ± 1,298	113,925 ± 7,219	24,411 ± 3,605	143,068 ± 7,174
Hardwood forest types	1,202 ± 562	4,122 ± 1,095	10,607 ± 2,355	15,930 ± 2,614
Total [1]	5,934 ± 1,385	118,358 ± 7,082	35,017 ± 3,846	159,310 ± 6,889
Net annual mortality:				
Softwood forest types	1,619 ± 781	23,175 ± 1,659	5,862 ± 981	30,656 ± 1,860
Hardwood forest types	259 ± 131	1,249 ± 454	2,097 ± 480	3,604 ± 668
Total [1]	1,878 ± 785	24,463 ± 1,592	7,959 ± 1,028	34,299 ± 1,778

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

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.

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 the section "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:	
Brewer spruce	*Picea brewerana* Wats.
Bristlecone pine	*Pinus aristata* Engelm.
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
Lodgepole pine	*Pinus contorta* Dougl. ex Loud.
Mountain hemlock	*Tsuga mertensiana* (Bong.) Carr.
Pacific yew	*Taxus brevifolia* Nutt.
Pinyon pine	*Pinus* spp.
Ponderosa pine	*Pinus ponderosa* Dougl. ex Laws.
Port-Orford-cedar	*Chamaecyparis lawsoniana* (A. Murr.) Parl.
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 hemlock	*Tsuga heterophylla* (Raf.) Sarg.
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
Black cottonwood	*Populus tricocarpa* Torr. & Gray
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.
Giant chinkapin	*Castanopsis chrysophylla* (Dougl.) A. DC.
Interior live oak	*Quercus wislizeni* A. DC.
Oregon ash	*Fraxinus latifolia* Benth.
Oregon white oak	*Quercus garryana* Dougl. ex Hook.
Pacific dogwood	*Cornus nuttallii* Audubon
Pacific madrone	*Arbutus menziesii* Pursh
Quaking aspen	*Populus tremuloides* Michx.
Red alder	*Alnus rubra* Bong.
Tanoak	*Lithocarpus densiflorus* (Hook. & Arn.) Rehd.
Valley oak	*Quercus lobata* Née
White alder	*Alnus rhombifolia* Nutt.
Willow	*Salix* spp.

[2] Nomenclature per Little (1979).

Tables

Table 1--Land area, by county, land class, and administrative status, North Interior Resource Area, California, 1994 [a b]

County	Forest land						Non-forest	All land [c]
	Timberland	Reserved timberland	Withdrawn timberland	Available other forest	Reserved other forest	Total forest		
	Thousand acres							
Lassen	796	48	1	423	12	1,280	1,637	2,917
Modoc	668	27	0	545	8	1,248	1,276	2,524
Shasta	1,231	93	4	557	27	1,912	511	2,423
Siskiyou	2,188	326	8	590	79	3,191	833	4,024
Trinity	1,062	271	6	362	232	1,933	101	2,034
Total	5,945	765	19	2,477	358	9,564	4,358	13,922

0 = none found

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

[b] Data for some National Forests were collected during 1993-95, older data 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, withdrawn timberland, and other forest land, by forest type, North Interior Resource Area, California, 1994 [a b]

Forest type	Reserved timberland	Withdrawn timberland	Other forest		Total
			Available	Reserved	
			Thousand acres		
Softwood types:					
Douglas-fir	58	7	26	6	97
Red fir	111	3	10	22	146
Other true firs	24	--	0	0	24
Mixed conifer	481	7	204	106	797
Ponderosa pine	6	1	29	3	38
Knobcone pine	0	0	26	3	29
Lodgepole pine	32	0	0	0	32
Gray pine	0	0	29	3	32
Whitebark pine	0	0	--	9	9
Other pines	29	0	0	2	31
Mountain hemlock	2	0	0	0	2
Pinyon-juniper	0	0	1,003	19	1,022
Total, softwood types	742	18	1,326	173	2,259
Hardwood types:					
California black oak	1	0	92	4	96
Canyon live oak	0	0	95	52	147
Interior live oak	0	0	26	0	26
Oregon white oak	0	0	94	2	97
Blue oak	0	0	91	0	91
Valley oak	0	0	7	0	7
Other oaks	0	0	283	10	293
Tanoak	4	0	--	0	4
Quaking aspen	0	0	3	2	5
Other hardwoods	--	0	3	--	3
Total, hardwood types	4	0	695	70	769
Chaparral	--	0	384	111	495
Nonstocked [c]	19	1	0	0	20
Unclassified	0	0	72	4	76
Total, all types	765	19	2,477	358	3,619

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

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

[b] Data for some National Forests were collected during 1993-95, older data 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; includes recent clearcuts scheduled for planting.

Table 3--Area of timberland, by county and owner class, North Interior 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											
Lassen	445	7	0	0	0	452	281	28	0	35	344	796
Modoc	427	0	0	0	0	427	195	35	0	11	241	668
Shasta	466	56	0	7	0	529	527	39	0	136	702	1,231
Siskiyou	1,532	25	1	2	0	1,560	503	65	0	60	628	2,188
Trinity	649	51	1	0	0	701	211	53	0	97	361	1,062
Total	3,519	139	2	9	0	3,669	1,717	220	0	339	2,276	5,945

0 = none found

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

[b] Data for some National Forests were collected during 1993-95, older data were updated to 1992; data for other owners were collected during 1991-94.

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

Forest type	National Forest	Other public	Forest industry	Other private	All owners
			Thousand acres		
Softwood types:					
Douglas-fir	452	0	0	0	452
Mixed conifer--					
Mixed conifer	1,958	35	963	203	3,159
Mixed conifer / hardwood	0	61	134	41	236
Total	1,958	97	1,097	244	3,396
Ponderosa / Jeffrey pine--					
Ponderosa pine	649	12	189	60	910
Ponderosa pine / hardwood	0	0	12	12	24
Jeffrey pine	4	9	59	34	106
Jeffrey pine / hardwood	0	0	0	4	4
Total	653	21	260	110	1,044
True firs--					
White fir	43	0	107	12	163
Red fir	134	0	33	0	167
Total	177	0	140	12	330
Other softwood types--					
Lodgepole pine	51	0	11	0	62
Knobcone pine	13	0	13	0	26
Alpine types	--	0	0	0	--
Total	64	0	25	0	88
Total, softwood types	3,303	118	1,522	366	5,309
Hardwood types:					
Bigleaf maple	0	3	0	10	13
Pacific madrone	0	0	7	0	7
Pacific madrone / softwood	0	0	0	16	16
Pacific dogwood	0	0	3	0	3
Tanoak	8	0	9	15	32
Black cottonwood	0	2	0	0	2
Canyon live oak	0	0	36	5	41
Canyon live oak / softwood	0	10	17	17	44
Oregon white oak	0	9	0	16	25
Oregon white oak / softwood	0	0	10	9	19
California black oak	43	0	10	39	91
California black oak / softwood	0	9	43	57	108
California-laurel	0	0	0	10	10
Total, hardwood types	51	32	134	193	410
Nonstocked [c]	165	0	61	0	226
Total, all types	3,519	150	1,717	559	5,945

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

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

[b] Data for some National Forests were collected during 1993-95, older data 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, North Interior 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	2,585	0	2,585	396	15	411	296	0	296	3,277	15	226	3,519
Other public	60	20	80	36	4	40	21	9	30	117	33	0	150
Forest industry	1,270	90	1,359	139	14	153	114	30	144	1,522	134	61	1,717
Other private	335	150	485	19	43	62	12	0	12	366	193	0	559
All owners	4,249	260	4,509	590	76	666	443	39	482	5,283	375	287	5,945

0 = none found

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

[b] Data for some National Forests were collected during 1993-95, older data 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, North Interior 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	0	98	391	1,363	1,494	172	3,519
Other public	5	4	18	54	31	39	150
Forest industry	21	95	372	404	573	253	1,717
Other private	7	14	71	95	230	142	559
All owners	33	211	851	1,917	2,328	606	5,945

0 = none found

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

[b] Data for some National Forests were collected during 1993-95, older data were updated to 1992; data for 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, North Interior Resource Area, California, 1994 [a] [b]

Forest type	Sawtimber	Poletimber	Seedling-sapling	Not classified [c]	All classes
			Thousand acres		
Softwood types:					
Douglas-fir	387	18	47	0	452
Mixed conifer--					
Mixed conifer	2,640	249	267	4	3,159
Mixed conifer / hardwood	181	49	7	0	236
Total	2,821	297	274	4	3,396
Ponderosa / Jeffrey pine--					
Ponderosa pine	606	225	79	0	910
Ponderosa pine / hardwood	17	0	7	0	24
Jeffrey pine	86	18	2	0	106
Jeffrey pine / hardwood	4	0	0	0	4
Total	714	243	87	0	1,044
True firs--					
White fir	132	10	21	0	163
Red fir	146	6	15	0	167
Total	278	16	36	0	330
Other softwood types--					
Lodgepole pine	36	16	--	10	62
Knobcone pine	13	0	0	13	26
Alpine types	--	0	--	0	--
Total	50	16	--	22	88
Total, softwood types	4,249	590	444	26	5,309
Hardwood types:					
Bigleaf maple	10	0	3	0	13
Pacific madrone	7	0	0	0	7
Pacific madrone / softwood	16	0	0	0	16
Pacific dogwood	0	0	3	0	3
Tanoak	10	16	4	2	32
Black cottonwood	0	2	0	0	2
Canyon live oak	35	0	7	0	41
Canyon live oak / softwood	35	9	0	0	44
Oregon white oak	18	1	6	0	25
Oregon white oak / softwood	11	8	0	0	19
California black oak	22	32	3	34	91
California black oak / softwood	87	8	13	0	108
California-laurel	10	0	0	0	10
Total, hardwood types	260	76	39	35	410
Nonstocked [d]	0	0	0	226	226
Total, all types	4,509	666	482	287	5,945

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

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

[b] Data for some National Forests were collected during 1993-95, older data 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.

[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 National Forests, by species and diameter class, North Interior 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	83,461	47,879	29,983	16,968	13,424	8,653	5,313	3,795	2,816	1,330	1,031	1,762	55	216,471
California red fir	423	392	211	144	0	130	52	0	59	50	0	112	0	1,573
Shasta red fir	1,442	2,629	707	242	109	304	249	27	167	187	127	385	0	6,574
Western juniper	3,853	1,227	557	192	422	215	98	87	86	0	0	0	0	6,737
Incense-cedar	75,186	32,686	17,325	9,352	2,931	2,509	1,953	1,407	1,252	660	567	1,510	113	147,450
Whitebark pine	0	0	0	0	0	0	0	0	0	0	0	15	0	15
Knobcone pine	448	0	462	513	323	111	155	0	52	48	0	5	0	2,116
Lodgepole pine	1,735	554	1,127	1,069	274	181	170	42	120	0	0	27	0	5,298
Jeffrey pine	10,986	8,113	6,374	3,819	1,791	1,436	1,260	887	782	651	262	548	0	36,909
Sugar pine	10,901	4,288	2,742	2,401	1,612	954	1,193	505	490	598	287	940	67	26,977
Western white pine	186	207	0	0	94	184	45	0	57	0	0	0	0	772
Ponderosa pine	56,888	37,632	23,025	14,650	9,247	8,665	5,203	4,063	2,669	1,708	1,231	2,428	34	167,443
Gray pine	153	0	0	0	0	0	36	0	24	57	0	14	0	284
Douglas-fir	91,687	41,238	26,528	14,946	9,857	6,271	5,105	3,299	2,302	1,959	1,127	2,366	308	206,991
Pacific yew	560	391	403	0	0	0	0	0	0	0	0	0	0	1,354
Total	337,909	177,236	109,441	64,296	40,084	29,613	20,831	14,112	10,875	7,247	4,631	10,112	577	826,964
Hardwoods:														
Bigleaf maple	8,878	5,621	1,518	1,845	1,231	190	274	31	64	37	0	8	8	19,704
California buckeye	139	0	0	0	0	0	0	0	0	0	0	0	0	139
Red alder	0	421	0	0	0	0	0	0	0	0	0	0	0	421
White alder	2,949	1,896	421	145	202	147	0	0	31	0	0	0	0	5,792
Pacific madrone	2,388	1,424	1,236	147	479	241	123	132	163	42	25	92	17	6,509
Giant chinkapin	0	227	227	0	0	0	60	48	0	0	0	0	0	561
Pacific dogwood	25,944	2,156	0	0	0	0	0	0	0	0	0	0	0	28,100
Oregon ash	493	0	0	0	0	0	0	0	0	0	0	0	0	493
Tanoak	6,099	2,344	1,439	1,052	224	171	124	37	50	84	40	45	0	11,709
Apple	690	0	0	0	0	0	0	0	0	0	0	0	0	690
Quaking aspen	133	0	0	0	0	0	0	83	0	25	43	21	0	305
Black cottonwood	211	211	211	159	0	0	0	0	0	0	0	0	0	791
Canyon live oak	40,762	17,946	12,801	6,674	4,635	2,166	1,520	572	434	208	159	297	14	88,187
Oregon white oak	3,240	5,637	3,338	2,282	900	435	140	173	179	80	58	43	0	16,503
California black oak	33,962	22,391	13,507	7,711	3,553	2,347	1,632	1,288	840	425	296	735	68	88,754
Valley oak	0	0	0	0	0	0	0	23	0	0	0	0	0	23
Interior live oak	0	0	186	0	0	0	0	0	0	0	0	0	0	186
Willow	3,792	471	0	0	78	0	0	0	0	0	0	0	0	4,340
California-laurel	1,026	910	399	273	0	213	0	0	0	0	22	0	0	2,844
Total	130,704	61,653	35,283	20,287	11,302	5,911	3,872	2,386	1,761	901	644	1,240	107	276,050
All species	468,612	238,889	144,723	84,583	51,386	35,524	24,703	16,499	12,637	8,148	5,274	11,352	684	1,103,014

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 National Forests, by species and diameter class, North Interior 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	81,477	46,900	29,860	16,968	13,076	8,531	5,286	3,795	2,786	1,306	1,031	1,746	47	212,807
California red fir	423	392	211	144	0	130	52	0	59	50	0	112	0	1,573
Shasta red fir	1,442	2,257	707	242	109	304	249	27	167	187	127	385	0	6,202
Incense-cedar	74,568	32,314	17,202	9,352	2,931	2,509	1,953	1,407	1,252	660	567	1,446	93	146,254
Whitebark pine	0	0	0	0	0	0	0	0	0	0	0	15	0	15
Knobcone pine	448	0	462	513	323	111	155	0	52	48	0	5	0	2,116
Lodgepole pine	1,735	554	1,127	1,069	274	181	170	42	120	0	0	27	0	5,298
Jeffrey pine	10,986	7,902	6,374	3,819	1,676	1,436	1,260	887	782	651	262	548	0	36,583
Sugar pine	10,715	4,102	2,742	2,279	1,612	954	1,130	505	490	598	287	921	67	26,401
Western white pine	0	207	0	0	94	184	45	0	57	0	0	0	0	586
Ponderosa pine	55,516	37,236	22,584	14,472	9,140	8,581	5,144	4,027	2,669	1,708	1,231	2,413	34	164,756
Douglas-fir	89,802	40,905	25,888	14,670	9,639	6,200	5,105	3,299	2,302	1,959	1,127	2,357	247	203,499
Total	327,113	172,767	107,155	63,528	38,874	29,121	20,548	13,989	10,735	7,166	4,631	9,975	488	806,090
Hardwoods:														
Bigleaf maple	8,878	5,621	664	1,647	905	190	274	0	64	10	0	0	8	18,260
California buckeye	139	0	0	0	0	0	0	0	0	0	0	0	0	139
Red alder	0	421	0	0	0	0	0	0	0	0	0	0	0	421
White alder	2,949	1,896	421	145	202	147	0	0	31	0	0	0	0	5,792
Pacific madrone	2,161	1,285	201	147	372	241	123	132	163	42	25	61	0	4,953
Giant chinkapin	0	227	227	0	0	0	60	48	0	0	0	0	0	561
Oregon ash	493	0	0	0	0	0	0	0	0	0	0	0	0	493
Tanoak	5,523	2,344	1,439	1,052	224	171	124	37	50	84	40	45	0	11,133
Quaking aspen	133	0	0	0	0	0	0	83	0	25	43	21	0	305
Black cottonwood	211	211	211	159	0	0	0	0	0	0	0	0	0	791
Canyon live oak	39,994	16,817	9,490	5,823	4,212	1,786	981	431	311	127	114	171	7	80,262
Oregon white oak	3,117	5,209	2,129	1,242	502	360	104	173	143	37	58	8	0	13,080
California black oak	32,773	21,572	11,720	6,428	2,976	1,981	1,414	1,002	684	344	234	464	38	81,630
Valley oak	0	0	0	0	0	0	0	23	0	0	0	0	0	23
Interior live oak	0	0	186	0	0	0	0	0	0	0	0	0	0	186
California-laurel	799	910	173	273	0	213	0	0	0	0	22	0	0	2,391
Total	97,169	56,513	26,860	16,915	9,393	5,090	3,079	1,928	1,447	668	537	768	53	220,419
All species	424,282	229,280	134,015	80,443	48,267	34,211	23,627	15,917	12,182	7,834	5,167	10,743	541	1,026,509

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, North Interior Resource Area, California, 1994 [a b c]

Species	Diameter class (inches at breast height) 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 +	All classes
	Million cubic feet											
Softwoods:												
White fir	90	149	197	242	253	263	278	204	606	400	187	2,870
Red fir	10	12	17	29	39	33	39	50	194	149	79	653
Port-Orford-cedar	--	--	1	--	--	--	--	0	0	1	4	8
Incense-cedar	36	45	37	41	45	47	58	44	197	146	132	829
Brewer spruce	--	--	1	1	1	2	1	1	1	1	--	8
Whitebark pine	--	1	3	1	--	1	1	1	2	0	0	8
Knobcone pine	1	4	5	5	8	4	4	4	3	1	0	39
Lodgepole pine	5	14	15	21	26	18	20	6	19	6	1	151
Jeffrey pine	15	27	36	53	55	61	74	72	138	88	48	666
Sugar pine	7	17	19	19	32	27	43	68	254	249	314	1,049
Western white pine	--	1	3	6	4	2	7	4	21	11	6	65
Ponderosa pine	55	120	155	219	229	255	235	256	817	440	223	3,003
Douglas-fir	124	218	281	271	285	323	286	271	1,004	929	1,662	5,653
Western hemlock	0	0	0	0	0	0	--	0	0	0	0	--
Mountain hemlock	--	3	3	8	6	8	10	6	25	10	2	81
Total	345	612	773	915	981	1,045	1,056	987	3,281	2,430	2,658	15,082
Hardwoods:												
Bigleaf maple	2	10	14	9	8	--	3	1	0	0	3	50
Red alder	0	0	0	0	0	--	--	0	1	0	0	1
White alder	1	1	3	2	0	0	2	0	0	0	0	9
Pacific madrone	8	17	27	43	43	31	24	21	48	14	1	276
Giant chinkapin	2	2	3	1	3	3	1	2	4	--	0	20
Tanoak	19	27	32	28	33	26	27	13	32	15	1	253
Quaking aspen	--	--	1	1	--	4	0	2	6	0	1	14
Black cottonwood	1	1	0	0	0	--	0	0	0	--	0	2
Canyon live oak	52	94	96	63	58	36	76	25	100	45	6	649
Oregon white oak	6	7	4	7	4	7	8	2	5	1	0	52
California black oak	72	89	68	67	80	57	82	54	173	54	26	820
Valley oak	--	1	0	--	0	1	0	0	0	0	0	1
Interior live oak	1	0	0	0	0	0	0	--	--	0	0	1
California-laurel	1	2	0	4	0	0	0	0	2	0	0	8
Other hardwoods	--	--	--	0	0	0	0	0	1	0	0	1
Total	163	250	247	224	229	165	223	119	371	130	36	2,157
All species	507	862	1,020	1,139	1,210	1,210	1,279	1,106	3,652	2,560	2,695	17,239

-- = 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 some National Forests were collected during 1993-95, older data 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, North Interior 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	611	911	1,116	1,228	1,329	1,034	3,341	2,350	1,168	13,088
Red fir	55	111	167	144	175	244	1,032	894	511	3,332
Port-Orford-cedar	7	2	2	2	1	0	0	9	24	46
Incense-cedar	82	133	164	179	233	185	912	743	748	3,377
Brewer spruce	5	3	3	12	8	6	6	6	1	49
Whitebark pine	6	2	1	2	2	2	11	0	0	25
Knobcone pine	19	18	34	19	20	23	14	8	0	154
Lodgepole pine	50	74	112	78	90	30	95	35	7	570
Jeffrey pine	105	183	217	261	337	349	736	550	333	3,071
Sugar pine	57	68	130	122	206	335	1,415	1,570	2,194	6,095
Western white pine	8	20	13	9	33	20	110	69	38	320
Ponderosa pine	457	762	986	1,134	1,111	1,308	4,609	2,823	1,554	14,742
Douglas-fir	984	1,097	1,313	1,556	1,429	1,430	5,735	5,847	10,996	30,387
Western hemlock	0	0	0	0	--	0	0	0	0	--
Mountain hemlock	10	32	26	38	44	30	137	64	11	390
Total	2,453	3,416	4,281	4,782	5,017	4,993	18,152	14,966	17,583	75,644
Hardwoods:										
Bigleaf maple		9	17	0	6	3	0	0	7	41
Red alder		0	--	--	--	0	8	0	0	8
White alder		8	0	0	7	0	0	0	0	15
Pacific madrone		26	25	37	54	26	64	28	2	261
Giant chinkapin		0	6	6	0	0	0	0	0	12
Tanoak		27	30	31	31	20	74	47	2	262
Quaking aspen		0	0	15	0	8	25	0	0	48
Black cottonwood		0	0	--	0	0	0	--	0	--
Canyon live oak		47	51	30	30	10	40	31	2	241
Oregon white oak		12	6	9	16	2	6	1	0	53
California black oak		71	89	83	80	54	182	106	76	740
Valley oak		0	0	1	0	0	0	0	0	1
Interior live oak		0	0	0	0	--	--	0	0	--
California-laurel		7	0	0	0	0	6	0	0	12
Other hardwoods		0	0	0	0	0	--	0	0	--
Total		207	224	211	224	122	405	213	88	1,694
All species	2,453	3,623	4,506	4,993	5,242	5,116	18,557	15,178	17,671	77,338

-- = 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 some National Forests were collected during 1993-95, older data were updated to 1992; data for other owners were collected in 1991-94.

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

Species	National Forest	Other public	Forest industry	Other private	All owners
			Million cubic feet		
Softwoods:					
White fir	1,664	1	1,089	116	2,870
Red fir	533	0	119	1	653
Port-Orford-cedar	8	0	0	0	8
Incense-cedar	394	9	310	116	829
Brewer spruce	8	0	0	0	8
Whitebark pine	7	0	2	0	8
Knobcone pine	18	2	18	1	39
Lodgepole pine	122	0	23	6	151
Jeffrey pine	419	26	131	90	666
Sugar pine	704	20	282	43	1,049
Western white pine	57	0	7	1	65
Ponderosa pine	1,751	53	821	378	3,003
Douglas-fir	4,181	135	1,064	273	5,653
Western hemlock	--	0	0	0	--
Mountain hemlock	81	0	0	0	81
Total	9,946	245	3,867	1,024	15,082
Hardwoods:					
Bigleaf maple	11	3	18	17	50
Red alder	1	0	0	0	1
White alder	0	0	7	2	9
Pacific madrone	237	0	1	38	276
Giant chinkapin	15	0	0	5	20
Tanoak	226	0	7	21	253
Quaking aspen	2	0	0	11	14
Black cottonwood	--	1	0	0	2
Canyon live oak	435	26	151	37	649
Oregon white oak	7	7	5	33	52
California black oak	431	31	165	194	820
Valley oak	1	0	0	1	1
Interior live oak	--	0	1	0	1
California-laurel	0	0	0	8	8
Other hardwoods	1	0	0	0	1
Total	1,367	68	354	367	2,157
All species	11,313	314	4,221	1,391	17,239

-- = 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 some National Forests were collected during 1993-95, older data 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, North Interior 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	8,252	6	4,359	471	13,088
Red fir	2,758	0	569	5	3,332
Port-Orford-cedar	46	0	0	0	46
Incense-cedar	1,832	36	1,073	436	3,377
Brewer spruce	49	0	0	0	49
Whitebark pine	14	0	11	0	25
Knobcone pine	80	8	66	0	154
Lodgepole pine	485	0	59	26	570
Jeffrey pine	2,041	137	506	387	3,071
Sugar pine	4,339	111	1,443	202	6,095
Western white pine	291	0	27	2	320
Ponderosa pine	9,093	250	3,593	1,807	14,742
Douglas-fir	23,951	649	4,673	1,114	30,387
Western hemlock	--	0	0	0	--
Mountain hemlock	390	0	0	0	390
Total	53,621	1,197	16,378	4,448	75,644
Hardwoods:					
Bigleaf maple	0	0	28	13	41
Red alder	8	0	0	0	8
White alder	0	0	11	4	15
Pacific madrone	159	0	0	102	261
Giant chinkapin	--	0	0	11	12
Tanoak	187	0	16	60	262
Quaking aspen	0	0	0	48	48
Black cottonwood	--	0	0	0	--
Canyon live oak	--	32	169	40	241
Oregon white oak	--	7	1	45	53
California black oak	128	17	222	374	740
Valley oak	0	0	0	1	1
Interior live oak	--	0	0	0	--
California-laurel	0	0	0	12	12
Other hardwoods	--	0	0	0	--
Total	482	56	447	709	1,694
All species	54,103	1,253	16,825	5,157	77,338

-- = 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 some National Forests were collected during 1993-95, older data 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, North Interior Resource Area, California, 1994 [a b c]

Forest type	Sawtimber	Poletimber	Seedling-sapling	Not classified [d]	All classes
			Million cubic feet		
Softwood types:					
Douglas-fir	2,547	2	8	0	2,557
Mixed conifer--					
Mixed conifer	10,068	431	39	0	10,538
Mixed conifer / hardwood	659	98	3	0	760
Total	10,727	529	42	0	11,297
Ponderosa / Jeffrey pine--					
Ponderosa pine	1,003	146	3	0	1,152
Pondrosa pine / hardwood	44	0	3	0	47
Jeffrey pine	168	25	1	0	194
Jeffrey pine / hardwood	16	0	0	0	16
Total	1,231	171	7	0	1,409
True firs--					
White fir	400	16	2	0	418
Red fir	625	7	3	0	635
Total	1,025	23	5	0	1,053
Other softwood types--					
Lodgepole pine	108	3	0	16	127
Knobcone pine	28	0	0	7	35
Alpine types	--	0	--	0	--
Total	136	3	--	23	162
Total, softwood types	15,666	728	61	23	16,479
Hardwood types:					
Bigleaf maple	27	0	0	0	27
Pacific madrone	6	0	0	0	6
Pacific madrone / softwood	38	0	0	0	38
Pacific dogwood	0	0	2	0	2
Tanoak	23	16	7	10	56
Black cottonwood	0	1	0	0	1
Canyon live oak	86	0	2	0	87
Canyon live oak / softwood	88	17	0	0	105
Oregon white oak	33	1	3	0	37
Oregon white oak / softwood	11	5	0	0	17
California black oak	32	36	0	50	118
California black oak / softwood	199	8	4	0	210
California-laurel	21	0	0	0	21
Total, hardwood types	564	85	17	60	725
Nonstocked [e]	0	0	0	35	35
Total, all types	16,230	813	78	118	17,239

-- = 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 some National Forests were collected during 1993-95, older data 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 and hardwood 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, North Interior 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:					
Douglas-fir	13,006	6	36	0	13,048
Mixed conifer--					
Mixed conifer	46,254	1,514	125	0	47,893
Mixed conifer / hardwood	2,484	309	10	0	2,803
Total	48,738	1,823	135	0	50,697
Ponderosa / Jeffrey pine--					
Ponderosa pine	4,262	547	8	0	4,817
Ponderosa pine / hardwood	171	0	0	0	171
Jeffrey pine	740	59	3	0	801
Jeffrey pine / hardwood	63	0	0	0	63
Total	5,235	606	11	0	5,852
True firs--					
White fir	1,814	32	11	0	1,857
Red fir	3,164	27	10	0	3,201
Total	4,978	59	21	0	5,058
Other softwood types--					
Lodgepole pine	478	9	0	63	550
Knobcone pine	124	0	0	24	148
Alpine types	--	0	--	0	--
Total	602	9	--	87	697
Total, softwood types	72,560	2,503	203	87	75,352
Hardwood types:					
Bigleaf maple	53	0	0	0	53
Pacific madrone	9	0	0	0	9
Pacific madrone / softwood	131	0	0	0	131
Pacific dogwood	0	0	8	0	8
Tanoak	52	37	13	43	145
Quaking aspen	--	0	0	0	--
Canyon live oak	186	0	8	0	193
Canyon live oak / softwood	295	43	0	0	338
Oregon white oak	67	0	5	0	72
Oregon white oak / softwood	29	12	0	0	40
California black oak	42	65	0	48	155
California black oak / softwood	627	19	9	0	654
California-laurel	49	0	0	0	49
Total, hardwood types	1,539	175	42	91	1,847
Nonstocked [e]	0	0	0	138	138
Total, all types	74,099	2,678	245	316	77,338

-- = 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 some National Forests were collected during 1993-95, older data 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 and hardwood 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, North Interior Resource Area, California, 1994 [a b c]

Forest type	National Forest	Other public	Forest industry	Other private	All owners
			Million cubic feet		
Softwood types:					
Douglas-fir	2,557	0	0	0	2,557
Mixed conifer--					
Mixed conifer	7,151	44	2,733	610	10,538
Mixed conifer / hardwood	0	171	456	132	760
Total	7,151	215	3,190	742	11,297
Ponderosa / Jeffrey pine--					
Ponderosa pine	730	19	260	144	1,152
Ponderosa pine / hardwood	--	0	32	15	47
Jeffrey pine	5	24	104	61	194
Jeffrey pine / hardwood	0	0	0	16	16
Total	736	43	396	235	1,409
True firs--					
White fir	117	0	272	30	418
Red fir	541	0	95	0	635
Total	657	0	366	30	1,053
Other softwood types--					
Lodgepole pine	109	0	18	0	127
Knobcone pine	7	0	28	0	35
Alpine types	--	0	0	0	--
Total	116	0	46	0	162
Total, softwood types	11,217	257	3,998	1,007	16,479
Hardwood types:					
Bigleaf maple	0	0	0	27	27
Pacific madrone	0	0	6	0	6
Pacific madrone / softwood	0	0	0	38	38
Pacific dogwood	0	0	2	0	2
Tanoak	10	0	12	34	56
Black cottonwood	0	1	0	0	1
Canyon live oak	0	0	74	13	87
Canyon live oak / softwood	0	34	38	32	105
Oregon white oak	0	9	0	28	37
Oregon white oak / softwood	--	0	9	8	17
California black oak	58	0	17	42	118
California black oak / softwood	0	12	59	140	210
California-laurel	0	0	0	21	21
Total, hardwood types	68	56	217	384	725
Nonstocked [d]	29	0	7	0	35
Total, all types	11,313	314	4,221	1,391	17,239

-- = 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 some National Forests were collected during 1993-95, older data 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, North Interior 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:					
Douglas-fir	13,048	0	0	0	13,048
Mixed conifer--					
Mixed conifer	33,909	181	11,302	2,501	47,893
Mixed conifer / hardwood	0	662	1,659	483	2,803
Total	33,909	843	12,961	2,984	50,697
Ponderosa / Jeffrey pine--					
Ponderosa pine	3,070	94	978	676	4,817
Ponderosa pine / hardwood	0	0	130	41	171
Jeffrey pine	23	129	391	258	801
Jeffrey pine / hardwood	0	0	0	63	63
Total	3,093	223	1,499	1,038	5,852
True firs--					
White fir	548	0	1,191	118	1,857
Red fir	2,754	0	447	0	3,201
Total	3,301	0	1,639	118	5,058
Other softwood types--					
Lodgepole pine	495	0	55	0	550
Knobcone pine	24	0	124	0	148
Alpine types	--	0	0	0	--
Total	519	0	179	0	697
Total, softwood types	53,870	1,066	16,277	4,140	75,352
Hardwood types:					
Bigleaf maple	0	0	0	53	53
Pacific madrone	0	0	9	0	9
Pacific madrone / softwood	0	0	0	131	131
Pacific dogwood	0	0	8	0	8
Tanoak	43	0	26	76	145
Canyon live oak	0	0	160	33	193
Canyon live oak / softwood	0	140	109	89	338
Oregon white oak	0	13	0	59	72
Oregon white oak / softwood	0	0	21	20	40
California black oak	77	0	18	60	155
California black oak / softwood	0	34	173	447	654
California-laurel	0	0	0	49	49
Total, hardwood types	121	187	522	1,017	1,847
Nonstocked [d]	112	0	26	0	138
Total, all types	54,103	1,253	16,825	5,157	77,338

-- = 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 some National Forests were collected during 1993-95, older data 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, North Interior Resource Area, California, 1994 [a] [b]

Class of timber	Softwood species	Hardwood species	All species
	Million cubic feet		
Sawtimber trees:			
Outside National Forests--			
Saw-log portion	4,454	304	4,758
Upper-stem portion	137	222	359
Total	4,591	526	5,117
National Forests	9,534	971	10,505
Total, sawtimber trees	14,125	1,497	15,622
Poletimber trees (all owners)	957	660	1,617
All growing-stock trees	15,082	2,157	17,239
Cull trees:			
Outside National Forests--			
Sound cull trees	17	80	97
Rotten cull trees	38	95	133
Total	55	175	230
National Forests	188	25	213
Total, cull trees	243	200	443
All timber	15,325	2,357	17,682

[a] Totals may be off because of rounding; data subject to sampling error.
[b] Data for some National Forests were collected during 1993-95, older data 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, North Interior Resource Area, California, 1994 [a b]

Forest type	National Forest	Other public	Forest industry	Other private	All owners
			Thousand cubic feet		
Softwood types:					
Douglas-fir	39,097	0	0	0	39,097
Mixed conifer--					
Mixed conifer	153,891	988	81,750	14,617	251,246
Mixed conifer / hardwood	0	2,930	12,709	3,640	19,278
Total	153,891	3,918	94,459	18,257	270,524
Ponderosa / Jeffrey pine--					
Ponderosa pine	20,276	385	6,683	3,410	30,753
Ponderosa pine / hardwood	0	0	722	322	1,044
Jeffrey pine	167	430	2,479	1,114	4,190
Jeffrey pine / hardwood	0	0	0	219	219
Total	20,443	815	9,884	5,065	36,206
True firs--					
White fir	2,526	0	7,654	1,090	11,270
Red fir	10,966	0	820	0	11,786
Total	13,493	0	8,473	1,090	23,056
Other softwood types--					
Lodgepole pine	2,635	0	485	0	3,121
Knobcone pine	295	0	624	0	919
Alpine types	--	0	0	0	--
Total	2,930	0	1,109	0	4,039
Total, softwood types	229,855	4,732	113,925	24,411	372,923
Hardwood types:					
Bigleaf maple	0	0	0	431	431
Pacific madrone	0	0	91	0	91
Pacific madrone / softwood	0	0	0	1,273	1,273
Pacific dogwood	0	0	82	0	82
Tanoak	82	0	297	764	1,142
Black cottonwood	0	179	0	0	179
Canyon live oak	0	0	1,148	194	1,342
Canyon live oak / softwood	0	341	813	1,086	2,239
Oregon white oak	0	230	0	478	708
Oregon white oak / softwood	0	0	149	92	241
California black oak	305	0	269	1,451	2,025
California black oak / softwood	0	452	1,273	3,463	5,187
California-laurel	0	0	0	1,377	1,377
Total, hardwood types	387	1,202	4,122	10,607	16,317
Nonstocked [c]	655	0	311	0	966
Total, all types	230,896	5,934	118,358	35,017	390,206

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

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

[b] Data for some National Forests were collected during 1993-95, older data 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 National Forests, by forest type and owner class, North Interior Resource Area, California, 1994 [a b]

Forest type	Other public	Forest industry	Other private	All owners
	Thousand board feet, Scribner rule			
Softwood types:				
Mixed conifer	5,348	414,105	67,227	486,679
Mixed conifer / hardwood	14,781	72,209	20,686	107,676
Total	20,129	486,314	87,913	594,355
Ponderosa / Jeffrey pine--				
Ponderosa pine	2,297	32,979	21,619	56,895
Ponderosa pine / hardwood	0	2,255	861	3,116
Jeffrey pine	2,832	11,349	5,771	19,951
Jeffrey pine / hardwood	0	0	1,142	1,142
Total	5,129	46,582	29,394	81,104
True firs--				
White fir	0	43,804	4,880	48,683
Red fir	0	4,020	0	4,020
Total	0	47,823	4,880	52,703
Other softwood types--				
Lodgepole pine	0	1,844	0	1,844
Knobcone pine	0	3,094	0	3,094
Total	0	4,938	0	4,938
Total, softwood types	25,257	585,657	122,186	733,100
Hardwood types:				
Bigleaf maple	0	0	1,059	1,059
Pacific madrone	0	111	0	111
Pacific madrone / softwood	0	0	6,825	6,825
Pacific dogwood	0	480	0	480
Tanoak	0	780	2,052	2,831
Canyon live oak	0	3,574	563	4,137
Canyon live oak / softwood	1,967	3,130	2,974	8,071
Oregon white oak	410	0	1,240	1,650
Oregon white oak / softwood	0	560	251	811
California black oak	0	301	3,569	3,870
California black oak / softwood	931	6,837	14,480	22,248
California-laurel	0	0	4,296	4,296
Total, hardwood types	3,308	15,773	37,309	56,389
Nonstocked [c]	0	1,180	0	1,180
Total, all types	28,565	602,609	159,495	790,669

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. Recent clearcuts scheduled for planting are included.

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

Forest type	National Forest	Other public	Forest industry	Other private	All owners
			Thousand cubic feet		
Softwood types:					
Douglas-fir	6,178	0	0	0	6,178
Mixed conifer--					
Mixed conifer	26,880	260	15,453	3,615	46,206
Mixed conifer / hardwood	0	1,229	2,088	827	4,144
Total	26,880	1,488	17,541	4,442	50,351
Ponderosa / Jeffrey pine--					
Ponderosa pine	2,038	71	1,868	769	4,745
Ponderosa pine / hardwood	0	0	255	139	394
Jeffrey pine	109	60	465	285	918
Total	2,147	131	2,587	1,275	6,139
True firs--					
White fir	1,280	0	1,945	146	3,371
Red fir	2,612	0	805	0	3,417
Total	3,892	0	2,750	146	6,788
Other softwood types--					
Lodgepole pine	527	0	84	0	611
Knobcone pine	17	0	212	0	229
Alpine types	--	0	0	0	--
Total	544	0	296	0	840
Total, softwood types	39,640	1,619	23,175	5,862	70,296
Hardwood types:					
Bigleaf maple	0	0	0	307	307
Pacific madrone	0	0	46	0	46
Pacific madrone / softwood	0	0	0	238	238
Pacific dogwood	0	0	12	0	12
Tanoak	0	0	42	282	324
Black cottonwood	0	21	0	0	21
Canyon live oak	0	0	498	22	520
Canyon live oak / softwood	0	109	251	132	492
Oregon white oak	0	40	0	139	179
Oregon white oak / softwood	0	0	26	49	76
California black oak	77	0	96	203	377
California black oak / softwood	0	89	278	647	1,014
California-laurel	0	0	0	78	78
Total, hardwood types	77	259	1,249	2,097	3,681
Nonstocked [c]	1	0	39	0	40
Total, all types	39,718	1,878	24,463	7,959	74,017

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

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

[b] Data for some National Forests were collected during 1993-95, older data 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 22--Average annual mortality of sawtimber on timberland outside National Forests, by forest type and owner class, North Interior Resource Area, California, 1994 [a] [b]

Forest type	Other public	Forest industry	Other private	All owners
	Thousand board feet, Scribner rule			
Softwood types:				
Mixed conifer--				
Mixed conifer	1,032	57,650	13,501	72,183
Mixed conifer / hardwood	1,693	5,882	2,562	10,137
Total	2,725	63,531	16,063	82,319
Ponderosa / Jeffrey pine--				
Ponderosa pine	332	5,959	3,466	9,756
Ponderosa pine / hardwood	0	1,048	419	1,466
Jeffrey pine	320	1,441	1,197	2,958
Jeffrey pine / hardwood	0	0	357	357
Total	652	8,447	5,438	14,537
True firs--				
White fir	0	8,237	566	8,803
Red fir	0	3,934	0	3,934
Total	0	12,171	566	12,736
Other softwood types--				
Lodgepole pine	0	250	0	250
Knobcone pine	0	717	0	717
Total	0	966	0	966
Total, softwood types	3,377	85,116	22,067	110,559
Hardwood types:				
Bigleaf maple	0	0	324	324
Pacific madrone	0	53	0	53
Pacific madrone / softwood	0	0	725	725
Pacific dogwood	0	46	0	46
Tanoak	0	82	370	452
Canyon live oak	0	556	43	599
Canyon live oak / softwood	344	417	249	1,011
Oregon white oak	31	0	273	303
Oregon white oak / softwood	0	92	152	244
California black oak	0	88	347	435
California black oak / softwood	138	412	1,746	2,295
California-laurel	0	0	144	144
Total, hardwood types	513	1,745	4,372	6,631
Nonstocked [c]	0	166	0	166
Total, all types	3,890	87,027	26,439	117,356

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), North Interior Resource Area, California, 1994 [a] [b]

County	Forest land							
	Timberland	Reserved timberland	Withdrawn timberland	Available other forest	Reserved other forest	Total forest	Non-forest	All land [c]
	Thousand hectares							
Lassen	322	19	--	171	5	518	662	1,181
Modoc	270	11	0	221	3	505	516	1,021
Shasta	498	38	2	225	11	774	207	981
Siskiyou	885	132	4	239	32	1,291	337	1,629
Trinity	430	110	2	147	94	782	41	823
Total	2,406	309	8	1,002	145	3,871	1,764	5,635

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

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

[b] Data for some National Forests were collected during 1993-95, older data 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), North Interior Resource Area, California, 1994 [a] [b]

Owner	Sawtimber	Poletimber	Seedling-sapling	Not classified [c]	All classes
	Thousand hectares				
National Forest	1,046	166	120	91	1,424
Other public	32	16	12	0	61
Forest industry	550	62	58	25	695
Other private	196	25	5	0	226
All owners	1,825	270	195	116	2,406

0 = none found

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

[b] Data for some National Forests were collected during 1993-95, older data 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 25--Area of reserved timberland and other forest land, by forest type and owner class, North Interior 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--					
Douglas-fir	57	1	0	0	58
True firs	112	23	0	0	135
Mixed conifer	456	23	0	2	481
Lodgepole pine	11	21	0	0	32
Ponderosa pine	6	0	0	0	6
Other pines	0	29	0	0	29
Mountain hemlock	0	2	0	0	2
Total	641	98	0	2	742
Hardwood types--					
California black oak	1	0	0	0	1
Tanoak	4	0	0	0	4
Red alder	0	--	0	0	--
Total	4	--	0	0	4
Nonstocked	19	0	0	0	19
Total, reserved timberland	664	98	0	2	765
Reserved other forest:					
Softwood types--					
Douglas-fir	6	0	0	0	6
Red fir	22	0	0	0	22
Mixed conifer	106	0	0	0	106
Ponderosa pine	3	0	0	0	3
Gray pine	2	1	0	0	3
Knobcone pine	3	0	0	0	3
Whitebark pine	9	0	0	0	9
Other pines	0	2	0	0	2
Pinyon-juniper	1	18	0	0	19
Total	153	20	0	0	173
Hardwood types--					
California black oak	4	0	0	0	4
Canyon live oak	52	0	0	0	52
Oregon white oak	2	0	0	0	2
Other oaks	0	10	0	0	10
Quaking aspen	2	0	0	0	2
Total	60	10	0	0	70
Chaparral	88	23	0	0	111
Unclassified	4	--	0	0	4
Total, reserved other forest	305	53	0	0	358
Total, reserved forest land	970	152	0	2	1,123
Available other forest:					
Softwood types--					
Douglas-fir	26	0	0	0	26
Red fir	10	0	0	0	10
Mixed conifer	172	0	15	16	204
Ponderosa pine	19	5	4	2	29
Gray pine	17	12	0	0	29
Knobcone pine	19	0	7	0	26
Whitebark pine	--	0	0	0	--
Pinyon-juniper	294	370	10	329	1,003
Total	556	386	37	347	1,326
Hardwood types--					
California black oak	74	0	0	17	92
Canyon live oak	75	5	9	6	95
Interior live oak	15	0	0	12	26
Oregon white oak	25	23	13	34	94
Blue oak	0	3	0	89	91
Valley oak	0	0	0	7	7
Other oaks	--	24	25	233	283
Other hardwoods	3	0	0	3	6
Total	192	55	48	400	695
Chaparral	165	53	23	143	384
Unclassified	19	13	13	28	72
Total, available other forest	933	507	120	917	2,477

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

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

[b] Data for some National Forests were collected during 1993-95, older data 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, North Interior 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	230	14,157	52,551	25	6,010	21,174	63	6,559	22,593	4	0	0	321	26,726	96,318
10-19	26	138	0	2	1,305	0	17	906	1,683	0	0	0	45	2,349	1,683
20-29	54	7,261	17,538	6	2,663	4,937	17	23,605	90,307	2	216	0	78	33,743	112,782
30-39	56	15,712	45,368	0	0	0	40	34,540	95,667	34	66,479	229,412	130	116,731	370,447
40-49	10	1,332	5,477	0	0	0	58	98,781	308,046	15	43,446	101,656	84	143,559	415,178
50-59	0	87,210	442,300	0	0	0	85	171,693	643,528	13	31,593	118,355	98	290,495	1,204,183
60-69	13	2,581	7,541	16	41,874	121,296	133	315,250	1,113,482	73	153,880	434,491	235	513,585	1,676,810
70-79	219	467,628	1,354,045	18	26,051	80,254	140	336,325	1,317,344	27	73,848	275,240	404	903,852	3,026,884
80-89	126	274,032	1,121,662	14	42,168	160,354	77	199,527	806,226	43	99,044	420,688	260	614,771	2,508,930
90-99	162	252,016	1,006,453	9	23,766	128,674	43	126,894	608,902	59	161,687	686,667	272	564,363	2,430,695
100-109	218	410,782	1,830,696	6	15,969	81,695	20	67,771	277,207	32	94,976	430,632	276	589,497	2,620,230
110-119	438	826,935	3,307,499	0	0	0	25	73,133	218,795	16	31,290	124,365	480	931,358	3,650,659
120-129	397	1,687,313	7,586,855	0	0	0	0	0	0	8	21,301	75,918	405	1,708,614	7,662,773
130-139	121	414,954	2,102,071	0	0	0	0	0	0	0	0	0	121	414,954	2,102,071
140-149	183	819,863	3,996,063	0	0	0	0	0	0	0	0	0	183	819,863	3,996,063
150-159	384	2,052,369	11,220,947	0	0	0	0	0	0	0	0	0	384	2,052,369	11,220,947
160-169	55	304,398	1,637,020	0	0	0	17	77,242	359,908	0	0	0	71	381,639	1,996,928
170-179	118	677,895	3,064,705	0	0	0	0	0	0	0	0	0	118	677,895	3,064,705
180-189	178	1,089,234	5,554,305	0	0	0	4	18,905	96,342	0	0	0	182	1,108,140	5,650,647
190-199	282	1,635,020	8,246,967	0	0	0	0	0	0	0	0	0	282	1,635,020	8,246,967
200-299	44	243,928	1,390,460	0	0	0	10	31,937	161,829	0	0	0	53	275,866	1,552,290
300 +	--	--	30	0	0	0	0	0	0	0	0	0	--	--	30
Uneven aged:															
< 100	0	0	0	25	30,094	68,719	631	1,831,962	7,274,528	169	407,573	1,402,749	824	2,269,630	8,745,996
100 +	0	0	0	31	123,626	585,577	276	799,249	3,402,658	66	205,525	856,691	373	1,128,400	4,844,927
Nonstocked [c]	165	28,480	111,618	0	0	0	61	6,523	26,191	0	0	0	226	35,003	137,809
Undetermined [d]	40	0	0	0	0	0	0	0	0	0	0	0	40	0	0
Total, all ages	3,519	11,313,237	54,102,172	150	313,525	1,252,680	1,717	4,220,801	16,825,235	559	1,390,857	5,156,864	5,945	17,238,420	77,336,951

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

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

[b] Data for some National Forests were collected during 1993-95, older data 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.

[d] No age class was estimated for these stands.

Table 27--Net volume of growing stock and sawtimber on timberland, by county, owner class, and species group, North Interior 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:															
Lassen	929	9	937	15	0	15	544	0	544	90	6	96	1,578	15	1,592
Modoc	613	6	619	0	0	0	278	6	284	104	15	119	995	27	1,022
Shasta	1,139	112	1,251	62	36	98	1,291	202	1,493	307	134	441	2,799	484	3,283
Siskiyou	4,511	795	5,305	68	7	75	1,260	43	1,303	259	44	303	6,098	889	6,986
Trinity	2,755	446	3,201	100	26	126	494	103	597	264	167	431	3,613	742	4,355
Total	9,946	1,367	11,313	245	68	314	3,867	354	4,221	1,024	367	1,391	15,082	2,156	17,239
							Million board feet, Scribner rule								
Sawtimber:															
Lassen	4,485	0	4,485	77	0	77	2,044	0	2,044	397	12	409	7,003	12	7,015
Modoc	2,807	0	2,807	0	0	0	1,012	3	1,015	337	62	399	4,156	65	4,221
Shasta	5,929	0	5,929	339	33	372	5,644	274	5,918	1,435	233	1,668	13,347	540	13,887
Siskiyou	24,737	35	24,772	305	6	311	5,462	53	5,515	1,190	64	1,254	31,694	158	31,852
Trinity	15,663	447	16,110	476	17	493	2,216	118	2,334	1,088	338	1,426	19,443	920	20,363
Total	53,621	482	54,103	1,197	56	1,253	16,378	448	16,825	4,447	709	5,157	75,644	1,694	77,338
							Million cubic meters								
Growing stock:															
Lassen	26	--	27	--	0	--	15	0	15	3	--	3	45	--	45
Modoc	17	--	18	0	0	0	8	--	8	3	--	3	28	1	29
Shasta	32	3	35	2	1	3	37	6	42	9	4	12	79	14	93
Siskiyou	128	22	150	2	--	2	36	1	37	7	1	9	173	25	198
Trinity	78	13	91	3	1	4	14	3	17	7	5	12	102	21	123
Total	281	39	320	7	2	9	109	10	119	29	10	39	427	61	488

-- = 500,000 cubic meters; 0 = none found

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

[b] Data for some National Forests were collected during 1993-95, older data 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, North Interior Resource Area, California, 1994 [a] [b]

Species	National Forest [c]		Outside National Forests												All owners [c]	
			Other public			Forest industry			Other private			Total, outside National Forests				
	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	Average annual mortality	Average annual removals	Current net annual growth	Average annual mortality	Average annual removals	Current net annual growth	Average annual mortality
	Thousand cubic feet															
Softwoods:																
White fir	39,032	16,468	--	16	0	37,939	7,525	14,859	3,315	789	476	41,248	8,331	15,335	80,279	24,799
Red fir	12,215	3,081	0	0	0	1,305	1,044	724	57	4	0	1,362	1,048	724	13,577	4,129
Port-Orford-cedar	184	0	0	0	0	0	0	0	0	0	0	0	0	0	184	0
Incense-cedar	13,446	226	83	89	0	7,633	1,734	4,413	1,994	579	1,945	9,710	2,402	6,358	23,156	2,629
Brewer spruce	117	0	0	0	0	0	0	0	0	0	0	0	0	0	117	0
Whitebark pine	119	0	0	0	0	19	4	0	0	0	0	19	4	0	138	4
Knobcone pine	284	0	56	3	0	399	191	0	41	2	0	495	196	0	779	196
Lodgepole pine	4,137	1,090	0	0	0	628	170	0	99	38	0	727	208	0	4,864	1,298
Jeffrey pine	9,664	590	481	69	0	2,941	666	1,512	1,650	467	129	5,072	1,203	1,642	14,735	1,793
Sugar pine	11,348	6,433	239	157	0	6,651	1,749	2,391	946	293	569	7,835	2,199	2,959	19,184	8,632
Western white pine	942	26	0	0	0	94	31	0	8	1	0	103	32	0	1,045	58
Ponderosa pine	42,180	2,709	1,136	257	0	19,763	5,718	11,584	8,620	2,458	2,770	29,518	8,434	14,353	71,698	11,143
Douglas-fir	93,470	7,998	3,236	190	0	36,962	2,477	16,764	12,445	718	6,198	52,643	3,385	22,962	146,113	11,383
Western hemlock	23	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0
Mountain hemlock	1,042	37	0	0	0	0	0	0	0	0	0	0	0	0	1,042	37
Total	228,201	38,659	5,225	782	0	114,334	21,309	52,246	29,174	5,350	12,087	148,733	27,441	64,333	376,934	66,100
Hardwoods:																
Bigleaf maple	0	0	90	8	0	306	42	104	166	229	0	562	279	104	562	279
California buckeye	0	0	0	0	0	0	0	0	0	0	28	0	0	28	0	0
White alder	0	0	0	0	0	287	67	0	28	0	0	315	67	0	315	67
Pacific madrone	1,340	418	0	0	0	64	20	0	561	209	168	625	229	168	1,965	647
Giant chinkapin	0	0	0	0	0	0	0	0	97	18	0	97	18	0	97	18
Tanoak	1,348	0	0	0	0	195	14	0	545	144	80	740	158	80	2,088	158
Quaking aspen	8	0	0	0	0	0	0	0	208	29	0	208	29	0	216	29
Black cottonwood	0	0	179	21	0	0	0	0	0	0	0	179	21	0	179	21
Canyon live oak	0	0	130	168	0	2,149	665	547	1,261	186	0	3,540	1,018	547	3,540	1,018
Oregon white oak	0	0	187	42	0	38	17	0	644	137	109	869	196	109	869	196
California black oak	0	641	123	856	0	969	2,328	753	2,126	1,614	160	3,218	4,798	913	3,218	5,438
Valley oak	0	0	0	0	0	0	0	0	14	0	0	14	0	0	14	0
Interior live oak	0	0	0	0	0	17	2	0	0	0	0	17	2	0	17	2
California-laurel	0	0	0	0	0	0	0	0	194	43	0	194	43	0	194	43
Total	2,696	1,058	709	1,096	0	4,025	3,154	1,404	5,843	2,609	544	10,577	6,858	1,948	13,272	7,916
All species	230,896	39,718	5,934	1,878	0	118,358	24,463	53,650	35,017	7,959	12,631	159,310	34,299	66,281	390,206	74,017

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

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

[b] Data for some National Forests were collected during 1993-95, older data were updated to 1992; data for other owners were collected during 1991-94.

[c] Annual removal volume is not available for National Forests.

Table 29--Current net annual growth, average annual mortality, and average annual removals of sawtimber on timberland outside National Forests, by species and owner class, North Interior 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	--	88	0	194,977	29,378	72,059	14,998	3,172	2,599	209,955	32,638	74,658
Red fir	0	0	0	7,612	5,078	3,823	309	15		7,920	5,093	3,823
Incense-cedar	455	385	0	26,494	5,486	20,706	8,783	2,042	9,418	35,731	7,913	30,124
Whitebark pine	0	0	0	127	21	0	0	0	0	127	21	0
Knobcone pine	295	15	0	2,037	513	0	0	0	0	2,331	528	0
Lodgepole pine	0	0	0	1,476	512	0	603	161	0	2,079	673	0
Jeffrey pine	3,100	353	0	13,936	2,461	7,091	8,116	1,834	565	25,152	4,648	7,656
Sugar pine	1,194	837	0	37,122	8,643	13,818	5,146	1,417	3,112	43,462	10,897	16,930
Western white pine	0	0	0	510	130	0	39	3	0	549	133	0
Ponderosa pine	6,828	1,150	0	106,061	22,783	53,510	50,196	11,173	12,838	163,084	35,106	66,348
Douglas-fir	15,799	779	0	200,778	8,860	93,000	53,402	2,439	35,716	269,978	12,077	128,716
Total	27,651	3,608	0	591,129	83,865	264,007	141,589	22,254	64,249	760,369	109,727	328,255
Hardwoods:												
Bigleaf maple	0	0	0	642	63	0	324	86	0	966	148	0
White alder	0	0	0	779	67	0	89	0	0	868	67	0
Pacific madrone	0	0	0	0	0	0	2,211	518	71	2,211	518	71
Giant chinkapin	0	0	0	0	0	0	325	15	0	325	15	0
Tanoak	0	0	0	637	16	0	1,535	212	0	2,172	228	0
Quaking aspen	0	0	0	0	0	0	1,388	123	0	1,388	123	0
Canyon live oak	444	140	0	7,394	549	483	2,180	148	0	10,019	837	483
Oregon white oak	205	18	0	27	4	0	687	156	275	919	178	275
California black oak	266	124	0	2,001	2,464	892	8,575	2,896	436	10,841	5,484	1,328
Valley oak	0	0	0	0	0	0	34	0	0	34	0	0
California-laurel	0	0	0	0	0	0	558	32	0	558	32	0
Total	914	282	0	11,480	3,162	1,375	17,906	4,185	782	30,300	7,629	2,157
All species	28,565	3,890	0	602,609	87,027	265,381	159,495	26,439	65,031	790,669	117,356	330,412

-- = less than 500 board feet; 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 National Forests.

Table 30--Changes in timberland area outside National Forests, by owner class, North Interior 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]	126	1,757	580	2,462
New estimate of timberland area for 1984, based on remeasured plots only [d]	168	1,729	581	2,478
Adjustments to 1984 area:				
Updates to owner or land class [e]	- 32	77	- 16	29
Adjusted timberland area for 1984 [f]	**136**	**1,806**	**565**	**2,507**
Area change (during 1984 -1994) due to:				
Changes in land use --				
Timberland to rights-of-way	--	- 8	--	- 8
Net change	--	- 8	--	- 8
Changes in inventory area--				
To National Forest	--	- 95	--	- 95
From National Forest		43	10	53
Net change	--	- 52	10	- 42
Changes in ownership--				
From forest industry	6	- 36	30	--
From other private	--	28	- 28	--
Net change	6	- 8	2	--
Timberland area in 1994, based on remeasured plots only [f]	**142**	**1,738**	**577**	**2,457**
Timberland area in 1994, based on all sample plots [g]	150	1,717	559	2,426

-- = none found or less than 500 acres.

[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] 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 National Forests, by species group and owner class, North Interior 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]	268	3,416	821	4,505	50	363	273	686
New estimate of volume for 1984, based on remeasured plots only [e]	271	3,434	887	4,592	44	348	278	670
Adjustments to 1984 volume:								
Updates to owner or land class [f]	- 83	267	- 157	27	- 3	- 15	23	5
Adjusted volume for 1984 [g]	**188**	**3,701**	**730**	**4,619**	**41**	**333**	**301**	**675**
Volume changes due to:								
Change in inventory area--								
To National Forests	--	- 328	0	- 328	--	- 23	--	- 23
From National Forests	--	45	13	58	--	2	5	7
Net change	--	- 282	13	- 269	--	- 21	5	- 16
Changes in owner--								
From forest industry	2	- 132	130	--	--	- 19	19	--
From other private	--	15	- 15	--	--	4	-4	--
Net change	2	- 117	115	--	--	- 15	15	--
Growth, mortality, and harvest--								
Periodic gross growth	59	1,469	365	1,894	14	77	82	174
Periodic mortality	--	- 125	20	- 145	--	- 7	- 9	- 16
Periodic removals	--	- 767	- 155	- 922	--	- 19	- 10	- 29
Net change	59	577	191	827	14	51	63	129
Total volume in 1994, based on remeasured plots only [g]	**249**	**3,879**	**1,049**	**5,177**	**56**	**348**	**384**	**788**
Total volume in 1994, based on all sample plots [h]	245	3,867	1,024	5,136	68	354	367	789

-- = 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 National Forests, by species group and owner class, North Interior 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]	1,251	14,571	3,457	19,279	50	504	470	1,024
New estimate of volume for 1984, based on remeasured plots only [e]	1,298	14,683	3,689	19,671	40	461	500	1,001
Adjustments to 1984 volume:								
Updates to owner or land class [f]	- 351	1,167	- 698	118	- 7	- 40	54	7
Adjusted volume for 1984 [g]	**947**	**15,850**	**2,991**	**19,789**	**33**	**421**	**554**	**1,008**
Volume changes due to:								
Changes in inventory area--								
To National Forests	--	- 1,557	--	- 1,557	--	- 29	--	- 29
From National Forests	--	206	57	263	--	4	--	4
Net change	--	- 1,351	57	- 1,294	--	- 25	--	- 25
Changes in ownership--								
From forest industry	7	- 615	609	--	--	- 48	48	--
From other private	0	47	- 47	--	--	1	- 1	--
Net changes	7	- 569	562	--	--	- 47	47	--
Growth, mortality, and harvest--								
Periodic gross growth	297	6,862	1,791	8,950	7	118	165	290
Periodic mortality	--	- 458	- 75	- 533	--	- 3	- 14	- 17
Periodic removals	--	- 3,885	- 807	- 4,692	--	- 23	- 13	- 35
Net change	297	2,519	910	3,725	7	92	138	237
Total volume in 1994, based on remeasured plots only [g]	**1,250**	**16,449**	**4,520**	**22,220**	**40**	**441**	**739**	**1,220**
Total volume in 1994, based on all sample plots [h]	1,197	16,378	4,448	22,023	56	447	709	1,212

-- = 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 National Forests, by forest type, North Interior Resource Area, California, 1984, 1994 [a b]

Forest type	Outside National Forests					
	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:						
Mixed conifer--						
Mixed conifer	1,185	2,884	11,929	1,206	3,363	13,809
Mixed conifer / hardwood	298	736	2,756	268	814	3,054
Total	1,483	3,620	14,685	1,474	4,176	16,863
Ponderosa / Jeffrey pine--						
Ponderosa pine	257	389	1,465	270	450	1,861
Ponderosa pine / hardwood	11	25	90	30	38	127
Jeffrey pine	121	164	685	114	214	915
Jeffrey pine / hardwood	5	14	47	0	0	0
Total	394	592	2,288	414	702	2,903
True firs--						
White fir	98	262	1,118	118	330	1,435
Red fir	38	193	947	31	92	435
Total	136	454	2,065	149	422	1,869
Other softwood type--						
Lodgepole pine	9	10	29	17	25	84
Knobcone pine	21	29	119	13	28	124
Total	30	39	148	30	53	208
Total, softwood types	2,043	4,706	19,185	2,067	5,353	21,843
Hardwood types:						
Bigleaf maple / softwood	10	35	111	10	27	53
White alder / softwood	9	21	54	0	0	0
Pacific madrone	9	6	10	9	7	11
Pacific madrone / softwood	10	12	29	10	17	47
Tanoak	27	46	138	27	55	154
Canyon live oak	58	80	169	41	88	194
Canyon live oak / softwood	19	40	149	34	77	262
Oregon white oak	15	27	67	15	27	59
Oregon white oak / softwood	38	31	92	25	33	104
California black oak	87	115	228	70	82	110
California black oak / softwood	73	157	514	79	173	539
California-laurel	10	14	37	10	21	49
Total, hardwood types	362	583	1,596	327	607	1,580
Nonstocked [c]	102	5	16	63	4	17
Total, all types	2,507	5,294	20,797	2,457	5,965	23,440

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.

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

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

Species	Outside National Forests			
	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	1,095	4,316	1,290	5,168
Red fir	196	962	111	533
Incense-cedar	418	1,606	415	1,476
Whitebark pine	2	12	2	14
Knobcone pine	17	59	22	73
Lodgepole pine	25	84	31	93
Jeffrey pine	253	1,042	272	1,158
Sugar pine	295	1,504	339	1,753
Western white pine	9	37	2	6
Ponderosa pine	1,022	4,389	1,184	5,306
Douglas-fir	1,284	5,775	1,509	6,639
Mountain hemlock	1	4	0	0
Total	4,619	19,789	5,177	22,220
Hardwoods:				
Bigleaf maple	33	19	42	32
White alder	4	7	9	14
Pacific madrone	32	72	40	93
Golden chinkapin	7	20	8	25
Tanoak	29	91	35	120
Canyon live oak	169	188	203	238
Oregon white oak	36	38	37	46
California black oak	357	557	407	639
Valley oak	1	1	1	1
California-laurel	8	15	9	12
Total	675	1,008	788	1,220
Total, all species	5,294	20,797	5,965	23,440

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 change analysis.

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

Year	County					Total
	Modoc	Lassen	Shasta	Siskiyou	Trinity	
	Thousand board feet, local scale [b]					
1948	209,920	360,959	291,746	257,399	132,850	1,252,874
1949	172,087	339,598	236,798	217,007	101,011	1,066,501
1950	222,636	229,952	266,240	221,332	105,115	1,045,275
1951	191,437	313,604	284,348	373,888	144,917	1,308,194
1952	155,082	167,224	330,142	296,864	214,271	1,163,583
1953	86,172	196,168	380,073	486,669	319,398	1,468,480
1954	70,040	241,752	425,187	347,483	252,061	1,336,523
1955	46,670	256,759	377,728	418,544	296,893	1,396,594
1956	73,512	169,185	469,317	412,056	266,406	1,390,476
1957	31,543	150,346	439,564	432,829	351,217	1,405,499
1958	40,711	54,261	389,440	537,573	347,985	1,369,970
1959	50,880	144,567	379,698	441,717	439,222	1,456,084
1960	42,296	98,182	315,325	552,685	305,842	1,314,330
1961	59,555	121,131	337,175	455,289	377,191	1,350,341
1962	60,301	126,662	410,145	568,926	369,601	1,535,635
1963	54,672	78,907	605,642	442,171	369,541	1,550,933
1964	48,463	134,313	494,411	530,721	317,742	1,525,650
1965	54,624	129,557	490,584	503,896	265,070	1,443,731
1966	91,762	110,974	465,472	421,560	220,058	1,309,826
1967	78,948	74,171	581,198	441,213	243,282	1,418,812
1968	85,171	88,559	582,723	459,238	255,647	1,471,338
1969	75,956	91,220	516,692	411,089	248,348	1,343,305
1970	99,371	81,384	469,350	401,951	214,637	1,266,693
1971	80,325	135,850	480,084	402,329	199,811	1,298,399
1972	98,803	97,800	463,624	405,883	244,332	1,310,442
1973	95,883	119,671	462,213	401,546	235,035	1,314,348
1974	134,714	109,139	425,164	371,171	237,629	1,277,817
1975	80,915	112,309	395,444	330,431	184,248	1,103,347
1976	98,289	123,320	364,431	451,547	255,032	1,292,619
1977	172,828	81,649	458,052	479,608	217,824	1,409,961

[a] The harvest data in this table include no cull, fuelwood, hardwood chips or logs, poles, pilings, or posts.
[b] 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 North Interior Resource Area use the short-log (16-foot) Scribner rule.

Source: California Department of Forestry Data 1948-77.

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

Year	Owner group	County					Total
		Lassen	Modoc	Shasta	Siskiyou	Trinity	
		Thousand board feet, local scale [b]					
1978	Private	77,736	47,414	262,703	261,479	91,940	741,272
	Public	65,676	94,584	80,111	298,818	127,483	666,672
	Total	143,412	141,998	342,814	560,297	219,423	1,407,944
1979	Private	48,130	44,595	203,118	224,079	96,784	616,706
	Public	50,706	56,706	44,935	288,770	148,218	589,335
	Total	98,836	101,301	248,053	512,849	245,002	1,206,041
1980	Private	17,188	36,590	108,891	187,921	75,922	426,512
	Public	71,773	48,388	55,104	262,627	76,159	514,051
	Total	88,961	84,978	163,995	450,548	152,081	940,563
1981	Private	14,466	5,900	136,667	187,409	88,727	433,169
	Public	38,431	36,258	35,055	132,704	74,026	316,474
	Total	52,897	42,158	171,722	320,113	162,753	749,643
1982	Private	16,189	12,009	124,553	115,069	97,214	365,034
	Public	55,566	17,732	22,780	106,021	64,852	266,951
	Total	71,755	29,741	147,333	221,090	162,066	631,985
1983	Private	16,451	7,470	167,588	189,124	47,351	427,984
	Public	101,946	36,021	99,467	158,553	166,181	562,168
	Total	118,397	43,491	267,055	347,677	213,532	990,152
1984	Private	25,477	14,726	169,043	250,895	94,755	554,896
	Public	69,793	31,630	90,485	215,168	127,377	534,453
	Total	95,270	46,356	259,528	466,063	222,132	1,089,349
1985	Private	5,165	12,963	137,637	264,040	101,615	521,420
	Public	99,407	42,546	85,881	231,967	144,950	604,751
	Total	104,572	55,509	223,518	496,007	246,565	1,126,171
1986	Private	15,786	9,291	138,351	264,280	121,354	549,062
	Public	90,125	25,183	89,967	284,629	161,111	651,015
	Total	105,911	34,474	228,318	548,909	282,465	1,200,077
1987	Private	33,944	14,781	182,155	285,107	138,102	654,089
	Public	68,607	45,044	77,154	305,972	153,219	649,996
	Total	102,551	59,825	259,309	591,079	291,321	1,304,085
1988	Private	50,611	11,707	225,948	268,847	104,505	661,618
	Public	73,836	36,228	41,168	315,585	215,803	682,620
	Total	124,447	47,935	267,116	584,432	320,308	1,344,238
1989	Private	51,618	7,833	158,056	209,959	114,392	541,858
	Public	55,650	43,144	44,896	317,775	167,066	628,531
	Total	107,268	50,977	202,952	527,734	281,458	1,170,389
1990	Private	51,225	37,700	115,201	198,649	139,125	541,900
	Public	44,776	52,734	55,793	195,421	85,061	433,785
	Total	96,001	90,434	170,994	394,070	224,186	975,685
1991	Private	50,617	17,567	158,006	159,928	98,373	484,491
	Public	62,926	17,332	38,621	99,294	95,287	313,460
	Total	113,543	34,899	196,627	259,222	193,660	797,951
1992	Private	67,634	31,973	309,541	161,072	112,579	682,799
	Public	36,624	30,091	60,724	81,498	57,670	266,607
	Total	104,258	62,064	370,265	242,570	170,249	949,406
1993	Private	80,663	59,708	404,633	132,208	88,908	766,120
	Public	55,056	28,121	18,029	30,709	52,513	184,428
	Total	135,719	87,829	422,662	162,917	141,421	950,548
1994	Private	72,698	69,036	165,541	127,301	89,356	523,932
	Public	52,772	38,500	13,448	54,788	4,401	163,909
	Total	125,470	107,536	178,989	182,089	93,757	687,841
1995	Private	37,280	24,341	142,777	157,701	95,700	457,799
	Public	48,820	32,461	7,013	29,714	18,619	136,627
	Total	86,100	56,802	149,790	187,415	114,319	594,426

[a] The harvest data in this table include no cull, fuelwood, hardwood chips or logs, poles, pilings, or posts.

[b] 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 North Interior 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 addresses:

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

For the eastern edge of California adjacent to Nevada--
USDA Forest Service, Intermountain Region
Timber Management
Federal Building
324 25th Street
Ogden, UT 84401

For the southern edge of Oregon--
Pacific Northwest Region
Timber Management: Plans, Silviculture, and Inventory
P.O. Box 3623
Portland, OR 97208-3623

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Waddell, Karen L.; Bassett, Patricia M. 1997. Timber resource statistics for the north interior resource area of California. Resour. Bull. PNW-RB-222. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 49 p.

This report is a summary of timber resource statistics for the North Interior Resource Area of California, which includes Lassen, Modoc, Shasta, Siskiyou, and Trinity 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 Lassen, Mendocino, Modoc, Six Rivers, Plumas, Shasta-Trinity, Rogue River, and Toiyabe National Forests. 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, north interior, Lassen County, Modoc County, Shasta County, Siskiyou County, Trinity County, California.

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