

List of tables as supplement to :

Brodie, Leslie; Palmer, Marin. 2018. California's forest resources, 2006-2015: Ten Year Forest Inventory and Analysis report. Gen. Tech. Rep. PNW-GTR-983. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 60 p.

Contents:

Number of Plots:

Table 1—Number of Forest Inventory and Analysis plots measured by sample status, land class, and ownership group, California, 2006-2015

Area:

Table 2—Area of sampled land and water, by land status and ownership group, California, 2006-2015

Table 3—Area of forest land, by county and land status, California, 2006-2015

Table 4—Area of forest land, by county and ownership group, California, 2006-2015

Table 5—Area of forest land, by ownership and land status, California, 2006-2015

Table 6—Area of forest land, by forest type group and land status, California, 2006-2015

Table 7—Area of forest land, by forest type group and site productivity class, California, 2006-2015

Table 8—Area of forest land, by forest type group, ownership group, and land status, California, 2006-2015

Table 9—Area of forest land, by forest type group and stand size class, California, 2006-2015

Table 10—Area of forest land, by forest type group and stand age class, California, 2006-2015

Table 11—Area of forest land by ecological section and land status, California, 2006-2015

Table 12—Area of forest land, by forest type group and stand origin, California, 2006-2015

Table 13—Area of timberland, by forest type group and stand size class, California, 2006-2015

Number of trees:

Table 14—Number of live trees on forest land, by county and land status, California, 2006-2015

Table 15—Number of dead trees on forest land, by county and land status, California, 2006-2015

Table 16—Number of live trees on forest land, by county and broad species group, California, 2006-2015

Table 17—Number of dead trees on forest land, by county and broad species group, California, 2006-2015

Table 18—Number of live trees on forest land, by species group and diameter class, California, 2006-2015

Table 19—Number of dead trees on forest land, by species group and diameter class, California, 2006-2015

Table 20—Number of live trees on forest land, by forest type group and ownership group, California, 2006-2015

Table 21—Number of dead trees on forest land, by forest type group and ownership group, California, 2006-2015

Table 22—Average number of live trees per acre on forest land, by forest type group and ownership group, California, 2006-2015

Table 23—Average number of dead trees per acre on forest land, by forest type group and ownership group, California, 2006-2015

Table 24—Number of growing stock trees on timberland, by species group and diameter class, California, 2006-2015

Tree volume:

- Table 25—Net volume of live trees on forest land, by ownership and land status, California, 2006-2015
Table 26—Net volume of dead trees on forest land, by ownership and land status, California, 2006-2015
Table 27—Net volume of live trees on forest land, by county and land status, California, 2006-2015
Table 28—Net volume of dead trees on forest land, by county and land status, California, 2006-2015
Table 29—Net volume of live trees on forest land, by county and broad species group, California, 2006-2015
Table 30—Net volume of live trees on forest land, by forest type group and stand size class, California, 2006-2015
Table 31—Net volume of dead trees on forest land, by forest type group and stand size class, California, 2006-2015
Table 32—Net volume of live trees on forest land, by forest type group and ownership group, California, 2006-2015
Table 33—Net volume of dead trees on forest land, by forest type group and ownership group, California, 2006-2015
Table 34—Net volume of live trees on forest land, by species group and ownership group, California, 2006-2015
Table 35—Net volume of dead trees on forest land, by species group and ownership group, California, 2006-2015
Table 36—Net volume of live trees on forest land, by species group and diameter class, California, 2006-2015
Table 37—Net volume of dead trees on forest land, by species group and diameter class, California, 2006-2015
Table 38—Net volume of live trees on forest land, by forest type group and stand origin, California, 2006-2015
Table 39—Net volume of dead trees on forest land, by forest type group and stand origin, California, 2006-2015
Table 40—Net volume of live trees on forest land, by forest type group and stand age class, California, 2006-2015
Table 41—Net volume of dead trees on forest land, by forest type group and stand age class, California, 2006-2015
Table 42—Average net volume per acre of live trees on forest land, by forest type group and stand age class, California, 2006-2015
Table 43—Average net volume per acre of dead trees on forest land, by forest type group and stand age class, California, 2006-2015
Table 44—Average net volume per acre of live trees on forest land, by forest type group and stand size class, California, 2006-2015
Table 45—Average net volume per acre of dead trees on forest land, by forest type group and stand size class, California, 2006-2015
Table 46—Average net volume per acre of live trees on forest land, by forest type group and ownership group, California, 2006-2015
Table 47—Average net volume per acre of dead trees on forest land, by forest type group and ownership group, California, 2006-2015
Table 48—Net volume of growing stock trees on timberland, by species group and diameter class, California, 2006-2015
Table 49—Net volume of growing stock trees on timberland, by species group and ownership group, California, 2006-2015
Table 50—Net volume of sawtimber-sized trees on timberland, by species group and ownership group, California, 2006-2015
Table 51—Net boardfoot volume (Scribner rule) of sawtimber trees on timberland, by county and ownership group, California, 2006-2015
Table 52—Net boardfoot volume (Scribner rule) of sawtimber trees on timberland, by forest type group and ownership group, California, 2006-2015
Table 53—Net boardfoot volume (Scribner rule) of sawtimber trees on timberland, by forest type group and stand size, California, 2006-2015
Table 54—Net boardfoot volume (Scribner rule) of sawtimber trees on timberland, by species group and diameter class, California, 2006-2015
Table 55—Net boardfoot volume (International $\frac{1}{4}$ -inch rule) of sawtimber trees on timberland, by species group and diameter class, California, 2006-2015
Table 56—Net boardfoot volume (International $\frac{1}{4}$ -inch rule) of sawtimber trees on timberland, by species group and ownership group, California, 2006-2015
Table 57—Average net boardfoot volume of sawtimber trees per acre (Scribner rule) on timberland, by forest type group and ownership group, California, 2006-2015

Table 58—Average net boardfoot volume of sawtimber trees per acre (Scribner rule) on timberland, by forest type group and stand size, California, 2006-2015

Biomass:

- Table 59—Aboveground biomass of live trees on forest land, by ownership and land status, California, 2006-2015
Table 60—Aboveground biomass of dead trees on forest land, by ownership and land status, California, 2006-2015
Table 61—Aboveground biomass of live trees on forest land, by county and land status, California, 2006-2015
Table 62—Aboveground biomass of dead trees on forest land, by county and land status, California, 2006-2015
Table 63—Aboveground biomass of live trees on forest land, by forest type group and ownership group, California, 2006-2015
Table 64—Aboveground biomass of dead trees on forest land, by forest type group and ownership group, California, 2006-2015
Table 65—Aboveground biomass of live trees on forest land, by forest type group and stand size class, California, 2006-2015
Table 66—Aboveground biomass of dead trees on forest land, by forest type group and stand size class, California, 2006-2015
Table 67—Aboveground biomass of live trees on forest land, by forest type group and stand age class, California, 2006-2015
Table 68—Aboveground biomass of dead trees on forest land, by forest type group and stand age class, California, 2006-2015
Table 69—Aboveground biomass of live trees on forest land, by species group and diameter class, California, 2006-2015
Table 70—Aboveground biomass of dead trees on forest land, by species group and diameter class, California, 2006-2015
Table 71—Aboveground green weight biomass of live trees on forest land, by ownership and land status, California, 2006-2015
Table 72—Aboveground green weight biomass of live trees on forest land, by species group and diameter class, California, 2006-2015
Table 73—Average aboveground biomass per acre of live trees on forest land, by forest type group and ownership group, California, 2006-2015
Table 74—Average aboveground biomass per acre of dead trees on forest land, by forest type group and ownership group, California, 2006-2015
Table 75—Average aboveground biomass per acre of live trees on forest land, by forest type group and stand size class, California, 2006-2015
Table 76—Average aboveground biomass per acre of dead trees on forest land, by forest type group and stand size class, California, 2006-2015
Table 77—Average aboveground biomass per acre of live trees on forest land, by forest type group and stand age class, California, 2006-2015
Table 78—Average aboveground biomass per acre of dead trees on forest land, by forest type group and stand age class, California, 2006-2015

Carbon:

- Table 79—Aboveground carbon mass of live trees on forest land, by ownership and land status, California, 2006-2015
Table 80—Aboveground carbon mass of dead trees on forest land, by ownership and land status, California, 2006-2015
Table 81—Aboveground carbon mass of live trees on forest land, by forest type group and ownership group, California, 2006-2015
Table 82—Aboveground carbon mass of dead trees on forest land, by forest type group and ownership group, California, 2006-2015
Table 83—Aboveground carbon mass of live trees on forest land, by forest type group and stand size class, California, 2006-2015
Table 84—Aboveground carbon mass of dead trees on forest land, by forest type group and stand size class, California, 2006-2015
Table 85—Aboveground carbon mass of live trees on forest land, by species group and diameter class, California, 2006-2015
Table 86—Aboveground carbon mass of dead trees on forest land, by species group and diameter class, California, 2006-2015
Table 87—Average aboveground carbon mass per hectare of live trees on forest land, by forest type group and ownership group, California, 2006-2015
Table 88—Average aboveground carbon mass per hectare of dead trees on forest land, by forest type group and ownership group, California, 2006-2015

Table 89—Average aboveground carbon mass per hectare of live trees on forest land, by forest type group and stand size class, California, 2006-2015

Table 90—Average aboveground carbon mass per hectare of dead trees on forest land, by forest type group and stand size class, California, 2006-2015

Down Wood:

Table 91—Biomass of down wood on forest land, by forest type group, ownership group, and land status, California, 2006-2015

Table 92—Carbon mass of down wood on forest land, by forest type group, ownership group, and land status, California, 2006-2015

Table 93—Biomass of down wood on forest land, by county and land status, California, 2006-2015

Table 94—Carbon mass of down wood on forest land, by county and land status, California, 2006-2015

Table 95—Average biomass per acre of down wood on forest land, by forest type group, ownership group, and land status, California, 2006-2015

Table 96—Average biomass per acre of down wood on forest land, by ownership and land status, California, 2006-2015

Table 97—Average biomass per acre of down wood on forest land, by county and land status, California, 2006-2015

Combined dead trees and dead wood (standing dead trees and down wood):

Table 98—Average biomass per acre of all dead wood (standing dead trees and down wood) on forest land, by county and land status, California, 2006-2015

Table 99—Volume of live trees, standing dead trees, and down wood on forest land, by stand age class, California, 2006-2015

Table 100—Biomass of live trees, standing dead trees, and down wood on forest land, by stand age class, California, 2006-2015

Table 101—Carbon mass of live trees, standing dead trees and down wood on forest land, by stand age class, California, 2006-2015

Table 102—Average volume per acre of live trees, standing dead trees, and down wood on forest land, by stand age class, California, 2006-2015

Table 103—Average aboveground biomass per acre of live trees, standing dead trees, and down wood on forest land, by stand age class, California, 2006-2015

Table 104—Average carbon mass per hectare of live trees, standing dead trees, and down wood on forest land, by stand age class, California, 2006-2015

National Forest:

Table 105—Area of forest land, by national forest and land status, California, 2006-2015

Table 106—Net volume of live trees on forest land, by national forest and land status, California, 2006-2015

Table 107—Aboveground biomass of live trees on forest land, by national forest and land status, California, 2006-2015

Table 108—Aboveground carbon mass of live trees on forest land, by national forest and land status, California, 2006-2015

Table 109—Average net volume per acre of live trees on forest land, by national forest and land status, California, 2006-2015

Table 110—Average aboveground biomass per acre of live trees on forest land, by national forest and land status, California, 2006-2015

Table 111—Average aboveground carbon mass per hectare of live trees on forest land, by national forest and land status, California, 2006-2015

Tree damage:

Table 112—Number of live trees with damage on forest land, by species and type of damage, California, 2006-2015

Table 113—Gross volume of live trees with damage on forest land, by species and type of damage, California, 2006-2015

Table 114—Area of forest land with more than 25 percent of basal area damaged, by forest type and type of damage, California, 2006-2015

Understory Vegetation:

Table 115—Mean cover of understory vegetation on forest land, by forest type group and life form, California, 2006-2015

Table 116—Mean cover of understory vegetation by forest type class, age class group, and lifeform, California, 2006-2015

Table 117—Estimated area of forest land covered by selected non-native vascular plant species and number of sample plots, by lifeform, California, 2006-2015

Table 118—Estimated area of forest land covered by the most abundant vascular plant non-timber forest products, by plant group and species, California, 2006-2015

Timber products output and removals:

Table 119—Total roundwood output by product, species group, and source of material, California, 2006-2015

Table 120—Volume of timber removals by type of removal, source of material, species group, California, 2006-2015

Annual growth, removals, and mortality:

Table 121—Average annual volume (cubic feet per acre) growth, removals, and mortality on forest land by ownership group, California, 2001-2005 and 2011-2015

Table 122—Average annual volume (cubic feet) growth, removals, and mortality on forest land by ownership group, California, 2001-2005 and 2011-2015

Table 123—Average annual biomass (tons per acre) growth, removals, and mortality on forest land by ownership group, California, 2001-2005 and 2011-2015

Table 124—Average annual biomass (tons) growth, removals, and mortality on forest land by ownership group, California, 2001-2005 and 2011-2015

Evidence of fire:

Table 125—Forest land area on which evidence of fire was observed, by year and ecosection group, California, 2006-2015

Table 1—Number of Forest Inventory and Analysis plots measured by sample status, land class, and ownership group, California, 2006-2015

Sampled status and land class	National Forest	Other Public	Private	Total
Sampled plots:				
Forest land plots:				
Softwood types	2012	464	876	3,293
Hardwood types	630	320	1,194	2,121
Nonstocked	127	19	54	200
Total	2,648	781	2,035	5,369
Nonforest land plots	1,132	4,554	6,256	11,891
Unsampled plots:				
Denied access	5	8	715	728
Hazardous	345	109	166	620
Total	350	117	881	1,348
All plots	3,591	6,057	8,285	17,674

Note: Totals are not additive because one plot can contain more than one forest type, land class and sample status.

Table 2—Area of sampled land and water, by land status and ownership group, California, 2006–2015

Land status	Ownership Group													
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All private		All owners	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand acres</i>														
Unreserved forest land:														
Timberland	8,870.6	120.8	310.6	42.4	143.6	27.8	4,248.6	121.6	3,003.4	115.7	7,252.0	119.6	16,576.8	168.9
Other forest land	2,439.7	99.6	1,110.4	74.9	167.2	30.2	772.1	65.2	4,367.5	132.6	5,139.6	140.0	8,856.9	187.5
Total	11,310.3	120.5	1,421.0	85.0	310.8	40.9	5,020.7	134.4	7,370.9	163.9	12,391.6	153.2	25,433.8	203.3
Reserved forest land:														
Productive forest land	2,781.7	90.6	1,025.9	61.6	329.0	36.0	--	--	--	--	--	--	4,136.6	115.0
Other forest land	1,231.0	76.0	693.7	61.0	446.3	46.1	--	--	--	--	--	--	2,371.1	107.6
Total	4,012.8	93.2	1,719.6	81.2	775.4	54.7	--	--	--	--	--	--	6,507.7	134.3
All forest land	15,323.1	122.0	3,140.6	100.2	1,086.2	60.8	5,020.7	134.4	7,370.9	163.9	12,391.6	153.2	31,941.5	201.5
Nonforest land and water:														
Nonforest land	5,210.3	112.5	23,597.3	130.0	2,870.4	86.9	1,123.7	76.6	35,167.7	190.9	36,291.4	184.5	67,969.4	211.5
Noncensus water	28.0	7.8	19.9	8.6	8.9	3.7	6.6	3.8	115.2	23.8	121.8	24.1	178.5	27.0
Census water	--	--	--	--	4,974.3	68.8	--	--	--	--	--	--	4,974.3	68.8
Total	5,238.2	112.8	23,617.2	129.9	7,853.6	106.6	1,130.3	76.6	35,282.9	190.7	36,413.2	184.2	73,122.2	202.0
All sampled area	20,561.3	68.0	26,757.8	126.8	8,939.8	117.5	6,151.0	155.9	42,653.8	202.9	48,804.8	153.8	105,063.7	44.7

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 acres was estimated.

Table 3—Area of forest land, by county and land status, California, 2006–2015

County	Land Status													
	Unreserved forests						Reserved forests						All forest land	
	Timberland		Other forest		Total		Productive		Other forest		Total			
Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total
Thousand acres														
Alameda	4.0	3.7	61.7	19.2	65.7	19.8	8.6	7.6	41.9	16.1	50.4	17.2	116.1	26.0
Alpine	123.9	26.4	50.6	17.2	174.5	31.8	161.8	32.3	56.8	19.0	218.6	37.4	393.1	49.1
Amador	118.5	27.3	88.5	22.3	207.0	35.2	14.6	9.5	6.7	6.8	21.3	11.7	228.2	37.1
Butte	397.0	48.6	139.3	28.4	536.3	56.0	--	--	22.4	11.6	22.4	11.6	558.8	57.2
Calaveras	215.1	36.1	280.2	40.4	495.3	54.0	7.4	7.1	--	--	7.4	7.1	502.7	54.4
Colusa	46.7	17.2	148.0	29.2	194.7	33.8	--	--	--	--	--	--	194.7	33.8
Contra Costa	--	--	30.6	12.3	30.6	12.3	--	--	21.4	10.0	21.4	10.0	52.0	15.5
Del Norte	228.5	36.7	14.0	9.3	242.5	37.6	331.5	44.6	68.8	20.4	400.3	48.9	642.8	61.4
El Dorado	668.1	62.0	118.2	25.1	786.3	66.8	47.7	17.9	21.7	11.5	69.4	21.3	855.7	70.1
Fresno	271.1	40.0	271.9	39.5	543.0	56.1	430.0	51.1	223.7	36.9	653.6	62.0	1,196.6	83.4
Glenn	104.1	24.7	80.8	21.1	184.9	32.6	6.8	7.0	4.5	4.6	11.3	8.4	196.2	33.7
Humboldt	1,416.6	87.6	78.8	20.8	1,495.4	90.2	201.7	34.5	--	--	201.7	34.5	1,697.1	96.4
Imperial	--	--	43.4	16.4	43.4	16.4	--	--	2.7	3.7	2.7	3.7	46.1	16.8
Inyo	14.5	9.6	244.0	37.5	258.4	38.7	18.7	10.6	230.8	37.1	249.5	39.0	508.0	54.4
Kern	147.9	29.8	511.8	54.3	659.7	62.1	5.8	6.5	39.0	15.7	44.7	17.0	704.4	64.4
Lake	175.2	31.7	127.4	26.9	302.5	41.7	22.0	11.7	39.2	15.9	61.2	19.7	363.7	46.1
Lassen	864.8	70.0	439.8	50.5	1,304.6	86.4	35.8	14.9	--	--	35.8	14.9	1,340.4	87.6
Los Angeles	25.3	12.2	117.9	24.6	143.2	27.4	26.6	13.2	23.7	12.3	50.3	17.8	193.5	32.7
Madera	218.5	35.4	219.7	35.0	438.2	50.0	155.7	32.1	45.8	16.3	201.6	35.8	639.7	61.6
Marin	17.1	9.9	24.9	11.4	42.0	15.1	18.9	11.0	30.2	13.3	49.1	17.3	91.1	22.9
Mariposa	142.4	28.9	272.3	40.1	414.7	49.4	192.1	33.8	46.2	17.1	238.3	37.5	653.0	61.8
Mendocino	1,212.3	81.9	331.1	43.2	1,543.5	92.0	51.9	18.2	59.9	19.6	111.8	26.6	1,655.3	95.6
Merced	--	--	24.8	11.0	24.8	11.0	--	--	6.1	5.9	6.1	5.9	30.9	12.5
Modoc	724.4	64.0	601.4	57.8	1,325.9	86.0	36.8	15.2	11.8	8.3	48.6	17.2	1,374.4	87.7
Mono	194.0	33.4	436.3	49.7	630.3	58.9	23.5	12.2	171.0	32.9	194.5	35.0	824.8	68.2
Monterey	20.1	10.7	312.9	41.3	333.0	42.7	25.8	12.5	115.2	25.6	141.0	28.5	474.1	51.4
Napa	57.9	18.2	91.2	21.9	149.1	28.4	--	--	21.4	11.2	21.4	11.2	170.5	30.5
Nevada	328.5	43.9	84.3	22.3	412.8	49.3	2.6	2.8	7.1	7.0	9.7	7.5	422.4	50.0
Orange	--	--	2.2	2.2	2.2	2.2	--	--	0.8	1.1	0.8	1.1	3.0	2.5
Placer	464.0	51.9	100.0	24.1	564.0	57.2	45.3	16.8	16.6	9.8	61.9	19.5	625.9	60.6
Plumas	1,398.6	87.4	51.4	15.6	1,450.0	89.0	37.2	15.9	--	--	37.2	15.9	1,487.2	90.4
Riverside	5.1	5.0	37.5	14.9	42.6	15.8	18.6	11.3	30.2	13.4	48.9	17.6	91.4	23.5
Sacramento	0.1	0.1	10.5	7.5	10.5	7.5	--	--	--	--	--	--	10.5	7.5
San Benito	--	--	135.4	28.0	135.4	28.0	--	--	--	--	--	--	135.4	28.0
San Bernardino	90.3	23.0	219.4	35.7	309.7	42.7	33.4	15.4	115.5	27.0	148.9	31.0	458.6	52.6
San Diego	14.5	9.2	69.3	18.2	83.8	20.3	6.0	6.5	36.1	14.8	42.2	16.2	125.9	26.0
San Joaquin	--	--	13.8	8.1	13.8	8.1	--	--	--	--	--	--	13.8	8.1
San Luis Obispo	--	--	225.7	33.3	225.7	33.3	--	--	32.8	13.6	32.8	13.6	258.5	36.2
San Mateo	44.2	16.2	2.6	2.5	46.8	16.4	17.5	10.0	29.6	13.1	47.1	16.0	93.9	23.2
Santa Barbara	18.1	9.6	140.0	27.5	158.0	29.3	16.7	9.9	51.9	18.8	68.7	21.0	226.7	36.1
Santa Clara	10.0	6.2	169.8	30.8	179.8	31.4	11.9	8.2	90.3	22.7	102.2	24.2	282.0	39.7
Santa Cruz	135.3	28.2	24.7	10.2	160.0	30.0	41.7	16.0	2.4	3.8	44.1	16.5	204.1	34.1
Shasta	1,202.3	82.6	448.6	50.4	1,650.9	97.0	144.5	29.0	69.2	19.4	213.7	35.6	1,864.6	102.8
Sierra	518.1	54.4	12.3	8.8	530.4	55.1	5.4	5.2	--	--	5.4	5.2	535.7	55.4
Siskiyou	2,227.5	109.1	446.0	51.2	2,673.5	119.9	369.9	45.9	53.8	17.5	423.7	48.5	3,097.2	128.9
Solano	--	--	15.8	8.2	15.8	8.2	--	--	3.7	3.4	3.7	3.4	19.6	10.2
Sonoma	288.4	41.6	116.2	24.6	404.6	48.2	28.9	13.6	18.4	10.6	47.2	17.3	451.8	51.2
Stanislaus	--	--	82.6	21.7	82.6	21.7	--	--	20.7	11.4	20.7	11.4	103.3	24.5
Sutter	--	--	11.9	7.7	11.9	7.7	--	--	--	--	--	--	11.9	7.7
Tehama	461.7	52.5	408.5	47.8	870.2	70.8	57.0	19.2	32.3	14.2	89.3	23.8	959.5	74.7
Trinity	1,175.6	81.6	124.3	25.7	1,299.9	85.6	509.4	52.1	44.6	16.5	554.0	54.3	1,853.9	101.3
Tulare	203.1	34.7	256.2	39.7	459.3	52.7	595.5	59.8	295.9	42.2	891.3	72.7	1,350.6	89.5
Tuolumne	468.3	52.2	205.7	34.1	674.1	62.2	335.9	43.8	51.4	17.8	387.2	47.1	1,061.3	77.8
Ventura	12.4	8.7	138.2	27.8	150.7	29.2	35.5	15.4	50.4	17.6	85.9	23.4	236.5	37.4
Yolo	--	--	61.7	18.7	61.7	18.7	--	--	--	--	--	--	61.7	18.7
Yuba	102.9	24.6	81.0	21.7	183.9	32.9	--	--	6.7	6.1	6.7	6.1	190.6	33.4
All counties	16,576.8	168.9	8,856.9	187.5	25,433.8	203.3	4,136.6	115.0	2,371.1	107.6	6,507.7	134.3	31,941.5	201.5

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- or not present = less than 50 acres was estimated. Counties w/o forest cover not included.

Table 4—Area of forest land, by county and ownership group, California, 2006-2015

County	Ownership group											
	National forest		Other federal		State and local government		Private		Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE		
<i>Thousand acres</i>												
Alameda	--	--	--	--	73.1	20.5	43.0	16.0	116.1	26.0		
Alpine	374.8	47.9	--	--	11.9	9.2	6.4	6.2	393.1	49.1		
Amador	51.9	17.8	6.0	6.3	3.0	2.0	167.4	31.6	228.2	37.1		
Butte	159.6	30.2	12.2	8.7	22.4	11.6	364.5	46.3	558.8	57.2		
Calaveras	55.8	18.0	14.2	9.0	29.5	13.9	403.3	48.3	502.7	54.4		
Colusa	73.5	20.8	13.5	8.3	--	--	107.7	25.3	194.7	33.8		
Contra Costa	--	--	--	--	23.7	10.3	28.3	12.1	52.0	15.5		
Del Norte	454.9	51.1	5.9	6.4	41.8	16.4	140.1	29.3	642.8	61.4		
El Dorado	516.4	54.5	10.9	8.1	27.3	12.9	301.1	41.3	855.7	70.1		
Fresno	797.2	67.7	192.8	34.4	--	--	206.5	34.5	1,196.6	83.4		
Glenn	151.4	30.1	--	--	4.5	4.6	40.2	14.5	196.2	33.7		
Humboldt	291.3	41.7	154.5	30.9	61.6	16.5	1,189.7	79.9	1,697.1	96.4		
Imperial	--	--	37.4	15.2	8.6	7.2	--	--	46.1	16.8		
Inyo	302.8	41.9	196.4	33.9	8.8	7.6	--	--	508.0	54.4		
Kern	272.2	40.2	113.0	26.1	7.8	7.1	311.4	42.1	704.4	64.4		
Lake	187.8	33.4	44.7	16.6	11.8	8.5	119.4	25.6	363.7	46.1		
Lassen	561.8	55.6	309.9	42.3	--	--	468.7	52.1	1,340.4	87.6		
Los Angeles	146.3	28.5	6.1	6.2	13.8	8.1	27.3	12.4	193.5	32.7		
Madera	376.9	47.7	64.5	19.9	5.4	5.9	192.9	32.4	639.7	61.6		
Marin	--	--	25.6	12.8	33.5	13.7	32.1	13.3	91.1	22.9		
Mariposa	155.8	30.2	253.6	38.1	--	--	243.6	38.2	653.0	61.8		
Mendocino	171.1	32.3	52.1	17.2	78.8	21.5	1,353.2	85.5	1,655.3	95.6		
Merced	--	--	0.2	0.2	8.4	6.4	22.4	10.7	30.9	12.5		
Modoc	929.0	70.6	82.5	21.9	8.8	7.6	354.1	46.2	1,374.4	87.7		
Mono	650.9	59.7	121.6	27.1	32.3	14.5	20.1	11.3	824.8	68.2		
Monterey	149.4	29.3	54.6	17.0	15.5	8.4	254.5	37.3	474.1	51.4		
Napa	--	--	1.2	1.3	28.6	12.2	140.8	28.0	170.5	30.5		
Nevada	155.6	30.1	5.5	3.9	27.3	13.2	234.0	37.1	422.4	50.0		
Orange	--	--	--	--	0.8	1.1	2.2	2.2	3.0	2.5		
Placer	366.5	46.3	22.9	11.1	41.5	15.5	195.0	33.7	625.9	60.6		
Plumas	1,088.4	76.0	28.7	13.7	9.5	7.4	360.5	46.0	1,487.2	90.4		
Riverside	30.3	13.8	31.7	13.9	12.1	8.5	17.4	9.7	91.4	23.5		
Sacramento	--	--	--	--	--	--	10.5	7.5	10.5	7.5		
San Benito	--	--	33.9	14.8	6.4	6.4	95.1	22.9	135.4	28.0		
San Bernardino	234.8	37.6	127.0	27.8	--	--	96.8	24.4	458.6	52.6		
San Diego	11.2	6.8	4.9	4.0	51.0	17.8	58.7	17.0	125.9	26.0		
San Joaquin	--	--	--	--	--	--	13.8	8.1	13.8	8.1		
San Luis Obispo	33.5	14.0	21.8	10.4	18.8	9.6	184.5	30.0	258.5	36.2		
San Mateo	--	--	5.8	6.4	41.3	14.7	46.8	16.4	93.9	23.2		
Santa Barbara	141.1	29.1	2.3	2.3	--	--	83.4	21.2	226.7	36.1		
Santa Clara	--	--	--	--	105.2	24.3	176.8	31.3	282.0	39.7		
Santa Cruz	--	--	--	--	54.8	18.0	149.3	28.9	204.1	34.1		
Shasta	658.9	60.6	203.5	35.0	20.6	11.8	981.6	74.6	1,864.6	102.8		
Sierra	433.3	49.2	--	--	5.4	5.2	97.1	23.7	535.7	55.4		
Siskiyou	2,106.0	103.8	55.1	18.6	21.0	11.5	915.1	72.8	3,097.2	128.9		
Solano	--	--	--	--	3.7	3.4	15.8	8.2	19.6	10.2		
Sonoma	--	--	18.9	10.7	41.7	16.3	391.2	47.4	451.8	51.2		
Stanislaus	--	--	--	--	20.7	11.4	82.6	21.7	103.3	24.5		
Sutter	--	--	--	--	--	--	11.9	7.7	11.9	7.7		
Tehama	367.1	46.1	16.3	9.0	15.3	9.4	560.8	56.9	959.5	74.7		
Trinity	1,350.6	85.2	97.0	24.4	--	--	406.3	48.9	1,853.9	101.3		
Tulare	748.7	66.4	355.4	45.8	7.4	7.1	239.2	38.5	1,350.6	89.5		
Tuolumne	498.1	53.0	330.5	43.0	7.8	7.1	225.0	36.1	1,061.3	77.8		
Ventura	217.1	36.0	2.1	1.8	--	--	17.4	10.2	236.5	37.4		
Yolo	--	--	--	--	--	--	61.7	18.7	61.7	18.7		
Yuba	51.0	17.4	4.2	3.7	13.0	8.5	122.4	27.0	190.6	33.4		
All counties	15,323.1	122.0	3,140.6	100.2	1,086.2	60.8	12,391.6	153.2	31,941.5	201.5		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- or not present= less than 50 acres was estimated.

Table 5—Area of forest land, by ownership and land status, California, 2006–2015

Ownership	Land Status													
	Unreserved forests							Reserved forests						
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest land	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand acres</i>														
USDA Forest Service:														
National Forest	8,870.6	120.8	2,439.7	99.6	11,310.3	120.5	2,781.7	90.6	1,231.0	76.0	4,012.8	93.2	15,323.1	122.0
Other federal government:														
Bureau of Land Management	297.3	41.7	931.8	69.4	1,229.1	79.9	50.2	17.5	211.5	35.5	261.8	39.7	1,490.9	86.0
Departments of Defense or Energy	13.3	9.0	71.9	20.3	85.3	22.2	--	--	5.5	5.7	5.5	5.7	90.7	22.9
National Park Service	--	--	--	--	--	--	972.0	60.4	462.1	51.6	1,434.2	75.7	1,434.2	75.7
U.S. Fish and Wildlife Service	--	--	--	--	--	--	3.6	3.7	0.6	0.6	4.2	3.7	4.2	3.7
Other federal	--	--	106.7	24.8	106.7	24.8	--	--	14.0	8.5	14.0	8.5	120.7	26.2
Total	310.6	42.4	1,110.4	74.9	1,421.0	85.0	1,025.9	61.6	693.7	61.0	1,719.6	81.2	3,140.6	100.2
State and local government:														
Local	49.0	16.9	115.1	24.6	164.2	30.1	38.4	14.3	167.1	29.7	205.5	31.7	369.7	43.3
State	94.5	22.3	43.5	15.9	138.1	27.0	285.7	33.4	273.4	37.8	559.1	48.1	697.1	47.8
Other public	--	--	8.6	7.1	8.6	7.1	4.9	5.5	5.9	6.4	10.8	8.4	19.4	11.0
Total	143.6	27.8	167.2	30.2	310.8	40.9	329.0	36.0	446.3	46.1	775.4	54.7	1,086.2	60.8
Corporate private	4,248.6	121.6	772.1	65.2	5,020.7	134.4	--	--	--	--	--	--	5,020.7	134.4
Noncorporate private:														
Nongovernmental conservation or natural resource organizations	255.6	39.7	131.3	27.2	386.8	48.1	--	--	--	--	--	--	386.8	48.1
Unincorporated partnerships, associations, or clubs	134.7	28.7	70.5	19.0	205.2	34.6	--	--	--	--	--	--	205.2	34.6
Native American	177.7	32.9	68.6	20.6	246.3	38.7	--	--	--	--	--	--	246.3	38.7
Individual	2,435.5	107.4	4,097.1	129.8	6,532.6	158.2	--	--	--	--	--	--	6,532.6	158.2
Total	3,003.4	115.7	4,367.5	132.6	7,370.9	163.9	--	--	--	--	--	--	7,370.9	163.9
All private	7,252.0	119.6	5,139.6	140.0	12,391.6	153.2	--	--	--	--	--	--	12,391.6	153.2
All owners	16,576.8	168.9	8,856.9	187.5	25,433.8	203.3	4,136.6	115.0	2,371.1	107.6	6,507.7	134.3	31,941.5	201.5

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 acres was estimated.

Table 6—Area of forest land, by forest type group and land status, California, 2006-2015

Forest type group	Land Status													
	Unreserved forests						Reserved forests							
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest land	
Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total
<i>Thousand acres</i>														
Softwoods:														
California mixed conifer	6,453.8	156.8	18.8	9.2	6,472.6	157.0	1,492.9	84.1	16.2	10.6	1,509.1	84.6	7,981.7	172.9
Douglas-fir	879.6	68.9	7.4	6.5	886.9	69.2	209.7	35.9	28.8	12.9	238.5	38.1	1,125.4	78.6
Fir / spruce / mtn. hemlock	1,378.0	85.0	35.5	14.5	1,413.5	86.1	589.1	57.4	50.9	17.8	640.0	59.8	2,053.4	104.4
Lodgepole pine	306.2	42.0	51.4	17.5	357.6	45.2	441.2	49.6	224.9	37.1	666.2	59.5	1,023.7	74.5
Pinyon / juniper woodlands	10.6	7.6	1,049.3	75.0	1,059.8	75.3	5.8	6.5	477.0	53.3	482.8	53.5	1,542.7	90.9
Ponderosa pine	2,083.5	100.6	41.8	15.1	2,125.3	101.6	215.1	35.0	29.7	12.8	244.7	37.1	2,370.1	107.8
Redwood	650.6	59.4	--	--	650.6	59.4	111.4	25.4	--	--	111.4	25.4	762.0	64.4
Western juniper	190.0	32.6	1,197.4	81.4	1,387.4	87.1	91.7	24.4	43.5	16.6	135.1	29.4	1,522.6	91.8
Western white pine	17.8	9.1	6.0	6.1	23.8	11.0	98.7	24.0	49.0	17.6	147.6	29.8	171.4	31.7
Other western softwoods	101.8	24.4	90.2	22.5	192.0	33.2	49.5	17.3	322.5	43.0	372.0	45.9	564.0	56.5
Total	12,071.8	177.9	2,497.8	111.4	14,569.5	201.3	3,305.1	108.7	1,242.4	80.8	4,547.4	124.6	19,117.0	219.1
Hardwoods:														
Alder / maple	153.0	28.3	20.6	8.1	173.5	29.4	34.9	14.5	10.7	8.0	45.5	16.6	219.1	33.7
Aspen / birch	26.5	11.7	24.2	10.9	50.7	16.0	8.9	6.4	20.6	10.4	29.6	12.2	80.2	20.1
Elm / ash / cottonwood	--	--	21.2	9.4	21.2	9.4	--	--	8.7	6.0	8.7	6.0	29.9	11.1
Tanoak / laurel	1,307.3	83.5	168.0	30.4	1,475.3	88.1	280.4	40.8	93.7	23.9	374.2	46.9	1,849.5	99.1
Western oak	2,087.4	106.9	5,647.8	153.7	7,735.2	179.6	311.4	42.9	865.2	66.8	1,176.7	77.8	8,911.9	192.6
Woodland hardwoods	41.4	15.2	189.5	32.0	230.9	35.4	--	--	34.0	12.4	34.0	12.4	264.9	37.5
Other hardwoods	296.3	40.3	152.5	28.7	448.8	49.3	68.4	21.2	25.4	12.1	93.8	24.3	542.7	55.0
Total	3,911.8	137.5	6,223.9	160.5	10,135.7	198.2	704.1	63.7	1,058.4	73.9	1,762.5	94.2	11,898.2	214.0
Nonstocked	593.2	55.4	135.3	26.6	728.6	61.1	127.5	27.7	70.3	19.6	197.8	33.8	926.3	69.9
All forest types	16,576.8	168.9	8,856.9	187.5	25,433.8	203.3	4,136.6	115.0	2,371.1	107.6	6,507.7	134.3	31,941.5	201.5

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 acres was estimated.

Table 7—Area of forest land, by forest type group and site productivity class, California, 2006-2015

Forest type group	Site productivity class (cubic feet / acre / year)														All classes	
	0-19		20-49		50-84		85-119		120-164		165-224		225+			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand acres</i>																
Softwoods:																
California mixed conifer	35.0	14.0	213.3	35.5	2,223.1	109.0	2,846.9	120.6	2,037.0	102.2	590.8	58.2	35.6	14.9	7,981.7	172.9
Douglas-fir	36.1	14.4	82.8	22.0	188.9	33.1	320.9	42.7	329.9	44.1	115.2	25.7	51.6	18.0	1,125.4	78.6
Fir / spruce / mtn.hemlock	86.4	23.0	151.5	29.4	448.0	50.9	745.8	66.0	489.6	53.3	120.6	26.9	11.6	8.6	2,053.4	104.4
Lodgepole pine	276.3	40.9	606.5	59.1	89.0	22.8	20.5	10.3	27.9	13.5	3.4	3.5	--	--	1,023.7	74.5
Pinyon / juniper woodlands	1,526.3	90.5	16.3	9.9	--	--	--	--	--	--	--	--	--	--	1,542.7	90.9
Ponderosa pine	71.5	19.7	837.5	67.1	776.3	64.4	400.4	46.7	186.3	32.1	80.1	21.0	18.0	10.1	2,370.1	107.8
Redwood	--	--	--	--	6.4	6.5	62.1	19.3	240.7	37.3	256.1	38.5	196.6	34.6	762.0	64.4
Western juniper	1,240.9	83.0	169.7	31.4	75.8	21.1	23.4	12.5	12.8	9.3	--	--	--	--	1,522.6	91.8
Western white pine	55.0	18.7	95.2	24.0	10.9	6.7	3.1	2.7	7.3	5.6	--	--	--	--	171.4	31.7
Other western softwoods	412.7	48.5	64.6	19.9	11.1	7.3	20.7	11.0	19.6	10.9	13.7	8.5	21.6	11.5	564.0	56.5
Total	3,740.1	133.9	2,237.4	107.9	3,829.6	136.6	4,443.8	145.4	3,351.1	128.3	1,180.0	81.2	335.0	45.2	19,117.0	219.1
Hardwoods:																
Alder / maple	31.3	11.4	6.9	5.8	12.5	7.8	34.2	13.5	56.0	17.8	50.8	16.1	27.5	12.8	219.1	33.7
Aspen / birch	44.8	15.0	11.5	7.2	17.6	10.1	6.3	5.0	--	--	--	--	--	--	80.2	20.1
Elm / ash / cottonwood	29.9	11.1	--	--	--	--	--	--	--	--	--	--	--	--	29.9	11.1
Tanoak / laurel	261.8	38.6	96.0	23.4	298.7	41.7	520.2	55.5	500.7	53.8	129.2	28.1	42.9	16.4	1,849.5	99.1
Western oak	6,513.0	165.5	462.1	52.2	787.9	67.2	621.0	60.2	449.5	51.0	78.2	21.9	--	--	8,911.9	192.6
Woodland hardwoods	223.5	34.3	25.8	12.3	14.4	8.9	1.2	1.2	--	--	--	--	--	--	264.9	37.5
Other hardwoods	177.9	31.1	58.8	18.6	116.5	25.8	81.0	21.4	69.7	20.0	35.1	14.3	3.6	4.2	542.7	55.0
Total	7,282.3	173.8	661.1	61.6	1,247.6	83.8	1,264.0	84.4	1,076.0	77.9	293.3	41.3	73.9	21.2	11,898.2	214.0
Nonstocked	205.6	33.0	193.8	32.9	220.8	34.5	180.0	31.7	105.1	23.7	17.0	9.1	4.0	3.7	926.3	69.9
All forest types	11,228.0	208.5	3,092.3	125.9	5,298.0	158.4	5,887.8	163.7	4,532.1	146.0	1,490.3	90.4	412.9	50.2	31,941.5	201.5

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50 acres was estimated.

Table 8—Area of forest land, by forest type group, ownership group, and land status, California, 2006–2015

Forest type group	Ownership group and land status																								
	USDA Forest Service				Other federal				State and local government				Private corporate				Private noncorporate				All owners				
	Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Total	SE			
Thousand acres																									
Softwoods:																									
California mixed conifer	4,189.8	120.7	1,035.1	69.4	72.6	21.0	434.7	46.1	33.7	14.3	54.9	17.4	1,626.9	89.4	--	--	530.7	54.6	3.2	2.6	7,981.7	172.9			
Douglas-fir	156.3	29.1	166.8	31.3	18.4	10.5	49.5	18.0	22.0	11.5	29.6	13.7	347.5	44.0	--	--	335.4	43.3	--	--	1,125.4	78.6			
Fir / spruce / mtn. hemlock	1,109.8	75.3	468.0	51.0	5.6	5.8	197.0	33.3	10.3	8.3	10.5	8.3	192.4	32.6	--	--	59.9	19.2	--	--	2,053.4	104.4			
Lodgepole pine	231.7	36.1	479.6	50.1	--	--	232.2	35.7	8.8	7.6	5.8	6.4	30.6	13.6	--	--	35.1	14.5	--	--	1,023.7	74.5			
Pinyon / juniper woodlands	10.6	7.6	729.4	60.9	--	--	566.6	55.8	--	--	59.2	19.2	--	--	44.2	16.7	--	--	132.8	27.7	1,542.7	90.9			
Ponderosa pine	1,248.2	76.1	221.5	35.3	39.0	15.1	36.8	14.3	3.7	3.8	22.7	11.7	432.9	48.5	4.0	2.8	359.8	44.0	1.6	1.6	2,370.1	107.8			
Redwood	3.4	3.1	16.8	9.9	--	--	30.3	13.8	33.4	13.9	64.3	18.9	389.5	47.5	--	--	224.3	35.4	--	--	762.0	64.4			
Western juniper	127.8	26.5	632.5	58.1	16.9	9.9	336.4	43.6	--	--	16.9	10.6	7.4	6.1	67.0	19.7	37.9	15.1	279.7	40.9	1,522.6	91.8			
Western white pine	17.8	9.1	140.7	29.1	--	--	12.9	8.6	--	--	--	--	--	--	--	--	--	--	--	--	--	171.4	31.7		
Other western softwoods	32.6	13.5	290.8	40.3	2.5	1.9	150.1	29.1	--	--	14.8	9.4	37.5	15.3	--	--	29.2	13.2	6.4	6.4	564.0	56.5			
Total	7,127.9	129.2	4,181.2	117.0	155.0	30.2	2,046.4	90.4	111.7	24.9	278.6	38.1	3,064.7	112.3	115.2	26.5	1,612.4	89.8	423.7	49.6	19,117.0	219.1			
Hardwoods:																									
Alder / maple	21.0	9.9	15.9	8.8	12.0	7.4	27.8	13.3	--	--	7.0	5.8	80.6	21.0	1.0	0.9	39.3	14.6	14.4	7.1	219.1	33.7			
Aspen / birch	13.0	7.8	44.1	14.7	--	--	8.6	7.2	--	--	1.1	1.2	3.8	3.6	--	--	9.7	7.9	--	--	80.2	20.1			
Elm / ash / cottonwood	--	--	4.7	4.8	--	--	0.5	0.5	--	--	8.2	5.9	--	--	1.6	1.3	--	--	14.9	8.0	29.9	11.1			
Tanoak / laurel	213.0	34.8	214.6	35.2	31.0	13.1	40.9	15.4	10.5	7.6	145.9	29.5	506.2	53.4	18.1	9.6	546.6	55.8	122.6	26.4	1,849.5	99.1			
Western oak	932.8	70.9	1,571.5	90.2	91.8	23.3	544.4	53.1	16.9	9.7	432.7	43.8	365.6	46.1	626.6	58.6	680.3	62.2	3,649.3	122.3	8,911.9	192.6			
Woodland hardwoods	34.8	14.2	104.7	23.4	--	--	64.9	18.7	--	--	20.4	11.2	5.4	5.2	--	--	1.2	1.2	33.5	12.7	264.9	37.5			
Other hardwoods	130.2	26.6	87.8	22.8	12.7	7.8	31.8	13.6	4.5	3.8	40.4	15.9	58.7	17.9	2.6	2.6	90.2	22.8	83.8	21.1	542.7	55.0			
Total	1,344.8	83.0	2,043.3	100.8	147.4	29.0	719.0	61.2	31.9	12.8	655.7	54.7	1,020.3	74.0	649.9	59.6	1,367.5	85.0	3,918.5	125.7	11,898.2	214.0			
Nonstocked	397.9	46.1	227.9	36.0	8.2	6.3	64.6	19.1	--	--	8.3	6.8	163.6	28.7	7.0	6.7	23.5	9.6	25.3	10.0	926.3	69.9			
All forest types	8,870.6	120.8	6,452.5	131.3	310.6	42.4	2,830.0	97.0	143.6	27.8	942.6	60.6	4,248.6	121.6	772.1	65.2	3,003.4	115.7	4,367.5	132.6	31,941.5	201.5			

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 acres was estimated.

Table 9—Area of forest land, by forest type group and stand size class, California, 2006-2015

Forest type group	Stand size class							
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		All classes	
	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand acres</i>								
Softwoods:								
California mixed conifer	7,501.6	168.2	134.5	26.4	345.6	43.6	7,981.7	172.9
Douglas-fir	997.8	73.9	72.1	19.6	55.6	17.5	1,125.4	78.6
Fir / spruce / mtn. hemlock	1,926.0	101.2	24.3	10.5	103.1	23.8	2,053.4	104.4
Lodgepole pine	934.3	71.4	31.7	12.6	57.7	17.7	1,023.7	74.5
Pinyon / juniper woodlands	1,353.6	85.8	113.7	26.2	75.3	21.5	1,542.7	90.9
Ponderosa pine	2,036.8	101.1	167.2	29.1	166.0	29.3	2,370.1	107.8
Redwood	700.5	61.8	25.2	12.4	36.2	12.8	762.0	64.4
Western juniper	1,266.9	84.2	122.1	26.0	133.6	28.4	1,522.6	91.8
Western white pine	128.4	27.4	1.4	1.4	41.6	15.5	171.4	31.7
Other western softwoods	341.4	44.0	104.4	24.9	118.3	26.4	564.0	56.5
Total	17,187.3	213.7	796.7	65.6	1,132.9	78.3	19,117.0	219.1
Hardwoods:								
Alder / maple	146.0	27.6	45.2	15.2	27.9	12.3	219.1	33.7
Aspen / birch	16.7	9.0	18.4	8.3	45.1	16.0	80.2	20.1
Elm / ash / cottonwood	29.3	11.1	0.6	0.6	--	--	29.9	11.1
Tanoak / laurel	1,312.2	84.4	337.5	44.3	199.8	32.7	1,849.5	99.1
Western oak	4,521.9	147.3	3,102.3	125.9	1,287.7	84.9	8,911.9	192.6
Woodland hardwoods	222.6	35.0	26.5	11.1	15.8	7.2	264.9	37.5
Other hardwoods	209.1	33.6	132.9	28.0	200.7	33.7	542.7	55.0
Total	6,457.8	171.7	3,663.4	135.8	1,777.0	98.0	11,898.2	214.0
Nonstocked	--	--	--	--	--	--	926.3	69.9
All forest types	23,645.1	221.5	4,460.0	148.9	2,910.0	123.4	31,941.5	201.5

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 acres was estimated.

Table 10—Area of forest land, by forest type group and stand age class, California, 2006-2015

Forest type group	Stand age class (years)													
	1-20		21-40		41-60		61-80		81-100		101-120		121-140	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand acres</i>														
Softwoods:														
California mixed conifer	275.5	38.3	234.6	36.2	645.2	60.8	1,260.7	83.3	1,668.0	95.2	1,046.2	76.5	624.2	59.7
Douglas-fir	69.3	18.5	226.5	36.1	265.6	38.9	181.9	32.9	87.9	22.2	36.3	14.6	39.6	15.5
Fir / spruce / mtn. hemlock	55.5	17.4	33.1	12.8	133.9	27.9	317.4	42.5	363.9	46.0	259.1	38.5	194.5	33.1
Lodgepole pine	16.7	8.4	19.0	9.8	15.8	9.0	101.2	24.3	107.6	25.1	98.6	24.7	91.8	24.1
Pinyon / juniper woodlands	10.6	7.5	7.7	6.3	21.2	11.4	98.3	25.0	112.6	26.3	74.0	21.2	62.1	19.3
Ponderosa pine	208.6	33.0	332.9	42.3	225.4	35.7	384.2	46.0	613.3	57.8	287.6	40.1	120.3	25.9
Redwood	62.9	18.4	78.6	21.2	148.1	29.6	120.4	26.0	131.9	28.1	42.5	16.1	45.7	16.2
Western juniper	14.0	9.0	37.5	14.6	191.5	34.3	368.2	46.7	346.7	44.0	159.1	30.5	63.9	19.0
Western white pine	--	--	5.0	4.9	22.1	11.1	9.1	6.4	13.5	7.6	12.4	9.0	7.0	6.4
Other western softwoods	14.4	9.2	33.5	14.7	57.7	18.0	72.3	20.1	60.3	18.3	40.5	15.3	13.7	9.3
Total	727.3	60.7	1,008.4	74.1	1,726.5	97.3	2,913.8	124.9	3,505.6	134.7	2,056.4	106.1	1,262.8	84.3
Hardwoods:														
Alder / maple	35.8	13.5	68.8	19.4	51.4	17.3	14.4	9.0	18.1	9.8	4.9	4.8	4.2	3.9
Aspen / birch	--	--	24.8	10.5	17.7	9.5	12.0	8.2	--	--	--	--	7.9	6.3
Elm / ash / cottonwood	--	--	3.0	2.5	0.1	0.1	--	--	0.4	0.4	--	--	--	--
Tanoak / laurel	109.4	24.4	255.8	38.7	506.8	53.5	278.3	41.2	209.1	34.7	79.7	21.8	23.4	11.3
Western oak	358.8	45.1	333.2	43.7	797.2	66.3	1,055.6	78.2	1,061.4	77.7	531.6	55.9	286.2	40.5
Woodland hardwoods	6.9	5.6	3.3	2.2	15.6	9.3	42.0	15.0	23.4	11.2	7.2	6.6	--	--
Other hardwoods	70.8	20.0	64.4	18.8	51.3	16.2	81.4	21.5	61.2	18.9	15.6	9.2	23.0	11.4
Total	581.7	56.8	753.2	64.9	1,440.0	88.1	1,483.7	91.9	1,373.4	88.1	638.9	61.3	344.6	44.2
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All forest types	1,309.0	82.3	1,761.6	97.1	3,166.5	127.2	4,397.5	150.8	4,879.1	157.0	2,695.3	120.9	1,607.5	94.5

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 acres was estimated.

Table 10—Area of forest land, by forest type group and stand age class, California, 2006-2015 (Continued)

Forest type group	Stand age class (years)											
	141-160		161-180		181-200		201+		Unknown		All classes	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand acres</i>												
Softwoods:												
California mixed conifer	639.9	60.7	215.1	36.4	309.2	43.4	1,044.3	76.9	18.5	10.3	7,981.7	172.9
Douglas-fir	49.4	17.4	30.1	13.3	29.0	12.7	99.5	24.0	10.4	7.4	1,125.4	78.6
Fir / spruce / mtn. hemlock	175.8	32.9	91.5	23.3	93.1	23.5	333.3	45.2	2.4	2.0	2,053.4	104.4
Lodgepole pine	130.0	28.3	93.9	24.4	89.3	24.2	259.7	39.7	--	--	1,023.7	74.5
Pinyon / juniper woodlands	86.9	22.6	50.3	17.7	37.3	15.6	146.7	30.2	835.2	69.4	1,542.7	90.9
Ponderosa pine	87.5	22.0	16.3	8.9	12.8	7.8	77.5	21.4	3.7	3.7	2,370.1	107.8
Redwood	--	--	25.7	12.3	12.9	9.3	93.2	23.6	--	--	762.0	64.4
Western juniper	55.8	18.0	44.1	17.0	38.2	14.9	184.6	33.5	18.9	10.5	1,522.6	91.8
Western white pine	5.9	6.5	5.1	5.3	13.1	8.7	78.1	21.8	--	--	171.4	31.7
Other western softwoods	28.0	13.1	19.2	10.0	28.2	12.3	168.1	31.8	28.1	13.2	564.0	56.5
Total	1,259.3	85.3	591.4	59.5	663.2	62.9	2,485.0	115.4	917.2	72.4	19,117.0	219.1
Hardwoods:												
Alder / maple	3.7	3.7	--	--	--	--	--	--	17.9	7.8	219.1	33.7
Aspen / birch	--	--	--	--	--	--	6.6	6.1	11.2	7.8	80.2	20.1
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	26.5	10.8	29.9	11.1
Tanoak / laurel	78.2	22.0	11.3	8.3	24.4	12.5	70.1	19.9	202.9	33.4	1,849.5	99.1
Western oak	220.6	36.5	90.7	23.6	74.3	21.0	142.2	29.4	3,960.1	134.5	8,911.9	192.6
Woodland hardwoods	29.6	13.3	--	--	--	--	5.0	5.0	131.9	26.3	264.9	37.5
Other hardwoods	11.9	8.4	6.7	6.8	--	--	16.1	9.5	140.4	27.9	542.7	55.0
Total	344.1	45.4	108.7	25.9	98.7	24.4	240.1	37.6	4,491.0	142.3	11,898.2	214.0
Nonstocked	--	--	--	--	--	--	--	--	926.3	69.9	926.3	69.9
All forest types	1,603.4	95.9	700.1	64.7	761.8	67.2	2,725.1	119.9	6,334.4	170.4	31,941.5	201.5

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 acres was estimated.

Table 11—Area of forest land by ecological section and land status, California, 2006-2015

Ecological section	Land Status															
	Unreserved forests								Reserved forests							
	Timberland		Unproductive		Total		Productive		Unproductive		Total		All forest land			
Thousand acres																
Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total
Ecological section																
Central California Coast	206.7	34.4	334.6	41.5	541.4	53.2	105.5	24.8	191.2	32.4	296.7	39.6	838.0	65.7		
Central California Coast Ranges	6.9	4.8	818.4	65.2	825.3	65.3	4.6	5.0	181.0	31.1	185.7	31.4	1,010.9	72.1		
Colorado Desert	--	--	31.4	13.9	31.4	13.9	--	--	--	--	--	--	31.4	13.9		
Great Valley	0.1	0.1	84.0	20.6	84.0	20.6	--	--	5.6	4.7	5.6	4.7	89.7	21.1		
Klamath Mountains	2,984.0	122.1	489.1	52.3	3,473.1	131.3	1,160.4	73.5	220.7	35.7	1,381.0	80.6	4,854.1	150.3		
Modoc Plateau	884.7	70.6	974.2	73.7	1,858.9	101.8	36.8	15.2	11.8	8.3	48.6	17.2	1,907.5	103.2		
Mojave Desert	--	--	66.3	19.7	66.3	19.7	--	--	88.9	23.2	88.9	23.2	155.2	30.3		
Mono	144.0	28.5	426.1	49.1	570.1	56.3	23.5	12.2	84.4	23.6	107.9	26.6	678.0	62.1		
Northern California Coast	2,184.6	101.4	212.1	32.5	2,396.7	105.5	251.8	36.7	56.7	18.3	308.5	40.6	2,705.2	111.1		
Northern California Coast Ranges	1,426.0	90.1	659.4	60.5	2,085.4	107.7	230.2	37.4	130.5	28.7	360.7	46.7	2,446.1	117.1		
Northern California Interior Coast Ranges	5.7	5.7	595.7	56.4	601.4	56.7	--	--	14.1	8.7	14.1	8.7	615.5	57.3		
Northwestern Basin and Range	6.8	6.7	41.0	15.5	47.9	16.9	--	--	--	--	--	--	47.9	16.9		
Sierra Nevada	5,567.1	154.5	1,145.7	80.4	6,712.8	169.0	2,037.0	98.4	942.7	71.7	2,979.7	113.5	9,692.5	194.8		
Sierra Nevada Foothills	114.3	26.2	1,817.2	94.3	1,931.5	97.4	2.3	2.6	72.1	20.7	74.4	20.8	2,005.9	99.4		
Sonoran Desert	--	--	36.2	15.2	36.2	15.2	--	--	2.7	3.7	2.7	3.7	38.9	15.6		
Southeastern Great Basin	--	--	112.7	26.1	112.7	26.1	--	--	144.3	30.0	144.3	30.0	257.1	39.2		
Southern California Coast	8.7	6.8	80.5	20.6	89.2	21.7	--	--	7.7	6.8	7.7	6.8	96.8	22.8		
Southern California Mountain and Valley	168.4	31.3	506.8	52.1	675.1	60.7	132.3	29.3	216.7	36.6	349.0	46.3	1,024.1	76.2		
Southern Cascades	2,868.7	123.1	425.6	50.3	3,294.3	132.4	152.2	30.0	--	--	152.2	30.0	3,446.5	135.7		
Total	16,576.8	168.9	8,856.9	187.5	25,433.8	203.3	4,136.6	115.0	2,371.1	107.6	6,507.7	134.3	31,941.5	201.5		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 acres was estimated.

Table 12—Area of forest land, by forest type group and stand origin, California, 2006-2015

Forest type group	Stand origin					
	Natural stands		Artificial regeneration		Total	
	Total	SE	Total	SE	Total	SE
<i>Thousand acres</i>						
Softwoods:						
California mixed conifer	7,569.1	169.3	412.6	47.7	7,981.7	172.9
Douglas-fir	1,046.4	75.8	79.1	21.0	1,125.4	78.6
Fir / spruce / mtn.hemlock	2,010.9	103.4	42.5	15.2	2,053.4	104.4
Lodgepole pine	1,021.5	74.4	2.2	2.1	1,023.7	74.5
Pinyon / juniper woodlands	1,536.3	90.8	6.4	6.4	1,542.7	90.9
Ponderosa pine	1,837.2	96.2	532.9	53.5	2,370.1	107.8
Redwood	714.3	62.4	47.7	17.0	762.0	64.4
Western juniper	1,521.1	91.7	1.5	1.5	1,522.6	91.8
Western white pine	171.4	31.7	--	--	171.4	31.7
Other western softwoods	564.0	56.5	--	--	564.0	56.5
Total	17,992.2	219.1	1,124.8	77.4	19,117.0	219.1
Hardwoods:						
Alder / maple	212.4	33.2	6.7	6.1	219.1	33.7
Aspen / birch	80.2	20.1	--	--	80.2	20.1
Elm / ash / cottonwood	29.9	11.1	--	--	29.9	11.1
Tanoak / laurel	1,744.3	96.5	105.1	24.6	1,849.5	99.1
Western oak	8,820.2	191.7	91.7	22.3	8,911.9	192.6
Woodland hardwoods	263.2	37.5	1.7	1.6	264.9	37.5
Other hardwoods	496.9	52.7	45.8	15.8	542.7	55.0
Total	11,647.2	212.4	251.0	37.1	11,898.2	214.0
Nonstocked	780.5	64.5	145.8	27.9	926.3	69.9
All forest types	30,419.8	213.2	1,521.7	89.2	31,941.5	201.5

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error.

Table 13—Area of timberland, by forest type group and stand size class, California, 2006–2015

Forest type group	Stand size class							
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		All classes	
	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand acres</i>								
Softwoods:								
California mixed conifer	5,995.4	151.5	134.5	26.4	323.8	42.1	6,453.8	156.8
Douglas-fir	765.2	64.3	67.0	19.0	47.4	16.3	879.6	68.9
Fir / spruce / mtn. hemlock	1,313.4	83.0	19.9	10.1	44.7	15.3	1,378.0	85.0
Lodgepole pine	267.4	39.4	14.1	9.1	24.7	11.2	306.2	42.0
Pinyon / juniper woodlands	10.6	7.6	--	--	--	--	10.6	7.6
Ponderosa pine	1,756.1	93.3	161.4	28.8	166.0	29.3	2,083.5	100.6
Redwood	589.1	56.7	25.2	12.4	36.2	12.8	650.6	59.4
Western juniper	157.2	29.2	3.3	3.2	29.5	13.3	190.0	32.6
Western white pine	17.8	9.1	--	--	--	--	17.8	9.1
Other western softwoods	85.3	21.9	8.2	7.2	8.3	6.4	101.8	24.4
Total	10,957.5	173.4	433.7	47.7	680.6	59.3	12,071.8	177.9
Hardwoods:								
Alder / maple	96.9	22.7	34.9	13.6	21.2	10.2	153.0	28.3
Aspen / birch	6.6	6.1	8.5	6.0	11.3	8.1	26.5	11.7
Elm / ash / cottonwood	--	--	--	--	--	--	--	--
Tanoak / laurel	990.8	73.5	213.5	35.4	103.0	23.1	1,307.3	83.5
Western oak	1,248.5	84.2	572.4	57.1	266.4	38.2	2,087.4	106.9
Woodland hardwoods	33.0	14.1	5.4	5.2	2.9	2.0	41.4	15.2
Other hardwoods	145.6	28.3	43.3	15.3	107.5	24.2	296.3	40.3
Total	2,521.5	113.6	878.0	70.0	512.4	52.2	3,911.8	137.5
Nonstocked	--	--	--	--	--	--	593.2	55.4
All forest types	13,479.0	172.2	1,311.7	83.8	1,193.0	77.7	16,576.8	168.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 acres was estimated.

Table 14—Number of live trees on forest land, by county and land status, California, 2006–2015

County	Land Status														
	Unreserved forests						Reserved forests								
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest land		
Thousand trees															
Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Alameda	217.2	201.7	12,235.2	4,699.4	12,452.4	4,701.1	1,458.3	1,296.2	5,701.9	2,979.8	7,160.2	3,174.6	19,612.6	5,665.6	
Alpine	28,558.4	8,722.5	9,906.9	6,826.6	38,465.3	11,102.1	30,590.9	7,383.5	9,680.9	5,751.1	40,271.7	9,351.8	78,737.0	14,516.1	
Amador	44,697.8	14,345.2	27,997.6	12,139.0	72,695.4	18,776.1	6,805.6	5,245.5	320.8	327.3	7,126.4	5,255.7	79,821.8	19,497.8	
Butte	262,571.9	41,451.2	71,221.2	19,497.1	333,793.1	45,441.0	--	--	1,790.9	1,140.6	1,790.9	1,140.6	335,583.9	45,455.4	
Calaveras	93,499.5	20,862.4	65,048.9	17,414.8	158,548.5	27,033.2	934.1	894.9	--	--	934.1	894.9	159,482.6	27,048.0	
Colusa	21,298.7	12,434.7	49,742.8	18,603.3	71,041.5	22,153.3	--	--	--	--	--	--	71,041.5	22,153.3	
Contra Costa	--	--	9,100.0	4,273.0	9,100.0	4,273.0	--	--	4,609.6	3,061.3	4,609.6	3,061.3	13,709.6	5,165.0	
Del Norte	140,645.9	29,494.5	13,508.6	9,104.0	154,154.5	30,738.4	203,253.9	35,380.9	29,192.4	11,395.9	232,446.3	37,093.0	386,600.8	47,930.8	
El Dorado	249,792.0	30,577.2	46,006.7	17,046.2	295,798.8	34,946.4	21,010.8	9,379.8	12,452.1	8,457.5	33,462.9	12,629.7	329,261.7	37,156.9	
Fresno	74,162.7	17,680.5	46,526.0	12,261.3	120,688.7	21,441.4	100,998.0	17,037.5	63,860.5	19,163.5	164,858.5	25,418.1	285,547.3	33,193.7	
Glenn	30,258.3	8,899.7	27,460.8	9,088.1	57,719.9	12,766.8	5,952.2	6,197.7	397.7	405.7	6,349.9	6,211.0	64,069.0	14,197.5	
Humboldt	930,805.3	76,412.6	25,566.5	8,808.0	956,371.8	76,809.1	90,080.9	20,458.1	--	--	90,080.9	20,458.1	1,046,452.7	79,422.6	
Imperial	--	--	253.4	131.3	253.4	131.3	--	--	408.2	556.7	408.2	556.7	661.6	572.0	
Inyo	1,878.5	1,259.1	31,777.1	7,281.2	33,655.6	7,389.2	985.7	750.7	47,527.9	11,490.6	48,513.6	11,530.4	82,169.2	13,641.3	
Kern	27,459.0	8,302.1	127,021.9	22,620.7	154,480.9	24,157.8	5,696.2	6,361.9	7,145.0	3,843.2	12,841.2	7,432.6	167,322.1	25,275.3	
Lake	68,943.9	15,812.2	93,297.1	30,578.4	162,241.1	34,449.0	11,043.0	7,290.2	24,812.0	15,404.0	35,855.0	17,033.4	198,096.0	38,429.7	
Lassen	258,200.7	31,234.5	60,055.6	13,304.7	318,256.3	33,922.2	13,087.3	7,140.6	--	--	13,087.3	7,140.6	331,343.6	34,661.5	
Los Angeles	8,063.5	7,700.3	29,294.0	13,717.4	37,357.5	15,730.9	15,238.0	8,870.1	32,923.0	22,751.8	48,160.9	24,218.9	85,518.4	28,878.2	
Madera	69,080.7	16,123.1	45,134.7	15,901.6	114,215.4	22,628.4	45,129.2	12,345.4	15,018.3	8,855.3	60,147.5	15,114.0	174,362.9	27,211.6	
Marin	6,315.6	4,370.3	4,204.1	2,089.6	10,519.7	4,844.2	2,478.4	1,599.3	6,954.7	2,842.6	9,433.1	3,261.6	19,952.8	5,839.9	
Mariposa	63,403.8	19,934.9	87,110.7	22,783.5	150,514.5	30,239.3	47,264.0	11,207.4	15,070.6	8,263.9	62,334.7	13,895.2	212,849.2	33,208.4	
Mendocino	777,931.6	67,211.1	118,367.2	23,887.9	896,298.8	71,072.1	27,911.1	11,175.7	40,354.8	16,591.5	68,265.9	19,925.8	964,564.7	73,662.0	
Merced	--	--	3,097.9	1,785.6	3,097.9	1,785.6	--	--	139.5	148.5	139.5	148.5	3,179.3	1,791.7	
Modoc	141,979.4	17,286.0	47,669.7	7,602.2	189,649.1	18,884.6	3,855.7	1,897.2	3,661.0	2,511.9	7,516.7	3,141.4	197,165.8	19,143.6	
Mono	65,709.5	22,122.6	92,797.5	20,919.9	158,507.1	30,347.0	7,808.6	5,725.8	40,252.9	11,520.3	48,061.6	12,864.8	206,568.6	32,872.4	
Monterey	6,376.2	4,209.4	67,349.2	17,869.5	73,725.4	18,358.6	2,035.7	1,170.9	58,394.5	33,373.1	60,430.2	33,395.4	134,155.5	38,113.6	
Napa	23,601.4	10,109.6	20,414.8	6,433.8	44,016.2	11,982.5	--	--	11,937.0	7,255.3	11,937.0	7,255.3	55,953.2	13,983.3	
Nevada	101,264.0	16,926.8	30,769.3	10,989.6	132,033.3	20,182.9	3,008.2	3,349.9	2,381.5	2,346.3	5,389.7	4,089.8	137,423.0	21,344.7	
Orange	--	--	6.0	6.2	6.0	6.2	--	--	26.4	36.1	26.4	36.1	32.5	36.6	
Placer	199,377.1	33,600.8	39,763.0	13,328.7	239,140.1	36,098.7	14,625.7	7,238.8	5,333.4	3,854.7	19,959.1	8,157.5	259,099.2	37,006.1	
Plumas	518,140.3	48,362.8	7,633.9	3,191.1	525,774.2	48,478.3	10,311.1	4,806.9	--	--	10,311.1	4,806.9	536,085.2	48,716.1	
Riverside	231.4	226.2	12,601.2	11,227.7	12,832.5	11,230.0	12,598.0	12,114.4	1,150.3	792.1	13,748.3	12,140.3	26,580.8	16,522.7	
Sacramento	--	--	666.3	522.4	666.3	522.4	--	--	--	--	--	--	666.3	522.4	
San Benito	--	--	18,108.8	5,322.7	18,108.8	5,322.7	--	--	--	--	--	--	18,108.8	5,322.7	
San Bernardino	19,341.9	8,128.6	47,214.8	14,488.8	66,556.6	16,699.5	3,780.7	2,860.3	6,566.2	2,415.7	10,346.9	3,743.9	76,903.6	17,113.8	
San Diego	304.5	290.5	7,342.2	3,929.8	7,646.7	3,939.8	--	--	2,091.8	1,385.1	2,091.8	1,385.1	9,738.5	4,175.3	
San Joaquin	--	--	698.4	677.8	698.4	677.8	--	--	--	--	--	--	698.4	677.8	
San Luis Obispo	--	--	22,692.8	4,269.2	22,692.8	4,269.2	--	--	2,571.6	1,067.1	2,571.6	1,067.1	25,264.4	4,481.4	
San Mateo	19,817.1	7,833.0	13.9	13.4	19,831.1	7,833.0	6,283.7	3,761.8	4,128.8	2,477.5	10,412.5	4,313.3	30,243.5	9,024.0	
Santa Barbara	1,529.8	1,207.0	19,619.6	9,465.3	21,149.7	9,550.7	1,284.4	1,262.7	6,861.2	4,207.4	8,145.7	4,392.3	29,295.1	10,512.2	
Santa Clara	475.7	330.4	45,962.7	10,183.2	46,438.4	10,188.5	5,777.1	4,347.2	31,394.9	16,377.7	37,172.0	16,944.8	83,610.4	19,772.0	
Santa Cruz	47,399.6	12,219.9	6,109.6	2,662.9	53,509.2	12,506.5	24,773.4	13,783.5	647.4	1,035.8	25,420.8	13,828.3	78,930.1	18,608.4	
Shasta	509,142.9	49,629.6	164,142.4	28,754.6	673,285.3	57,480.5	66,059.6	18,165.4	16,151.2	5,511.2	82,210.8	19,038.0	755,496.1	60,478.0	
Sierra	186,282.5	27,377.6	1,015.3	1,011.8	187,297.7	27,396.3	93.4	89.7	--	--	93.4	89.7	187,391.1	27,395.7	
Siskiyou	819,529.9	56,840.8	118,855.6	26,866.5	938,385.5	62,693.7	106,272.1	18,971.6	10,938.6	4,554.4	117,210.7	19,419.9	1,055,596.2	65,438.7	
Solano	--	--	3,039.3	1,879.7	3,039.3	1,879.7	--	--	375.5	340.3	375.5	340.3	3,414.8	1,955.1	
Sonoma	141,618.5	24,243.3	28,778.5	7,406.2	170,396.9	25,319.9	12,823.6	7,722.0	7,735.5	5,035.3	20,559.1	9,218.6	190,956.1	26,908.5	
Stanislaus	--	--	16,892.7	7,815.2	16,892.7	7,815.2	--	--	827.5	558.9	827.5	558.9	17,720.2	7,835.2	
Sutter	--	--	8,730.6	8,877.9	8,730.6	8,877.9	--	--	--	--	--	--	8,730.6	8,877.9	
Tehama	169,035.9	25,042.0	136,624.4	25,218.8	305,660.3	35,470.3	10,788.5	4,820.8	4,632.4	2,551.3	15,420.9	5,454.3	321,081.2	35,887.2	
Trinity	511,859.8	47,562.8	37,699.9	12,314.2	549,559.6	49,153.0	138,786.6	20,101.3	33,778.2	17,282.7	172,564.8	26,260.6	722,124.5	55,797.0	
Tulare	28,972.9	7,261.4	37,889.2	9,411.0	66,862.1	11,882.5	117,828.8	17,002.1	61,207.4	18,955.1	179,036.3	25,391.7	245,898.4	27,992.0	
Tuolumne	145,890.9	22,109.0	51,646.0	13,125.8	197,536.9	25,635.0	92,959.4	16,690.9	5,709.6	2,284.4	98,669.0	16,831.4	296,205.9	30,593.1	
Ventura	2,988.9	3,088.9	17,109.0	5,154.7	20,098.0	6,008.9	1,464.4	925.5	5,504.0	2,676.3	6,968.5	2,829.7	27,066.4	6,641.8	
Yolo	--	--	5,226.2	1,799.5	5,226.2	1,799.5	--	--	--	--	--	--	5,226.2	1,799.5	
Yuba	59,367.0	18,049.7	24,168.0	7,583.1	83,535.0	19,607.2	--	--	456.3	499.2	456.3	499.2	83,991.3	19,612.7	
	6,878,021.9	141,515.0	2,143,127.5	94,856.3	9,021,149.4	159,585.1	1,273,136.5	64,408.4	643,076.2	64,393.8	1,916,212.7	87,714.5	10,937,362.1	173,886.2	

All counties

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- or not present = less than 50 acres was estimated. Counties w/o forest cover not included.

* Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 15—Number of dead trees on forest land, by county and land status, California, 2006–2015

County	Land Status													
	Unreserved forests						Reserved forests						All forest land	
	Timberland		Other forest		Total		Productive		Other forest		Total		Total	
Thousand trees														
Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total
Alameda	--	--	739.2	281.2	739.2	281.2	51.6	45.8	9.3	8.0	60.9	46.5	800.1	284.7
Alpine	1,552.6	438.8	127.7	65.9	1,680.3	443.9	2,029.4	571.8	384.8	178.1	2,414.2	598.3	4,094.5	744.9
Amador	1,504.7	605.7	427.1	165.4	1,931.8	627.8	527.5	419.4	--	--	527.5	419.4	2,459.3	755.0
Butte	8,094.2	1,682.8	1,091.3	329.9	9,185.5	1,719.2	--	--	100.8	64.1	100.8	64.1	9,286.3	1,720.4
Calaveras	2,491.3	755.9	1,792.4	481.6	4,283.7	896.8	445.2	426.5	--	--	445.2	426.5	4,728.9	993.1
Colusa	1,862.6	1,379.0	811.8	272.6	2,674.5	1,405.3	--	--	--	--	--	--	2,674.5	1,405.3
Contra Costa	--	--	80.0	56.9	80.0	56.9	--	--	56.3	47.9	56.3	47.9	136.3	74.4
Del Norte	4,744.8	970.9	339.7	427.5	5,084.4	1,038.0	8,157.8	1,523.0	1,426.6	581.3	9,584.4	1,628.9	14,668.8	1,924.6
El Dorado	13,333.8	2,079.7	712.5	247.6	14,046.4	2,093.3	1,771.3	954.5	472.8	342.4	2,244.1	1,014.1	16,290.5	2,326.0
Fresno	4,568.3	1,019.2	1,914.3	512.2	6,482.5	1,140.3	5,435.6	1,033.0	1,365.6	436.9	6,801.2	1,116.0	13,283.7	1,593.5
Glenn	2,613.7	991.9	423.9	212.8	3,037.7	1,014.4	20.2	21.1	--	--	20.2	21.1	3,057.9	1,014.6
Humboldt	29,485.7	4,050.9	711.9	249.5	30,197.6	4,057.8	7,486.3	1,864.7	--	--	7,486.3	1,864.7	37,684.0	4,464.8
Imperial	--	--	84.1	61.8	84.1	61.8	--	--	45.4	61.9	45.4	61.9	129.4	87.5
Inyo	75.9	61.3	1,409.6	368.7	1,485.5	373.7	68.5	68.4	1,404.9	445.2	1,473.4	450.4	2,958.9	583.9
Kern	2,530.5	1,110.7	5,518.0	1,963.2	8,048.5	2,254.9	34.8	38.9	194.4	107.0	229.2	113.8	8,277.7	2,257.7
Lake	2,646.3	630.4	1,330.5	600.0	3,976.8	868.3	262.7	185.4	167.7	142.0	430.5	233.5	4,407.3	899.1
Lassen	9,922.4	1,408.5	2,124.2	999.8	12,046.6	1,726.4	973.1	559.8	--	--	973.1	559.8	13,019.7	1,814.7
Los Angeles	98.0	80.2	1,720.3	1,151.2	1,818.3	1,154.0	481.1	484.1	732.2	587.1	1,213.4	761.0	3,031.7	1,382.2
Madera	3,554.3	1,415.2	585.1	257.7	4,139.4	1,438.2	2,263.9	681.0	229.8	113.8	2,493.7	690.3	6,633.1	1,595.3
Marin	676.6	505.8	421.1	260.4	1,097.7	568.9	705.1	663.0	211.7	147.8	916.8	679.3	2,014.5	886.0
Mariposa	1,932.0	643.6	2,346.3	859.0	4,278.3	1,070.5	5,341.1	1,365.2	509.0	303.6	5,850.1	1,394.9	10,128.4	1,755.7
Mendocino	22,172.2	2,810.4	2,365.1	618.2	24,537.3	2,872.5	1,808.9	1,106.1	1,046.4	530.2	2,855.2	1,224.2	27,392.5	3,121.6
Merced	--	--	36.4	37.3	36.4	37.3	--	--	--	--	--	--	36.4	37.3
Modoc	8,885.6	1,939.5	1,364.8	368.4	10,250.4	1,973.8	2,051.8	1,078.5	104.5	116.7	2,156.3	1,084.8	12,406.6	2,252.3
Mono	878.5	431.8	5,650.5	1,360.1	6,529.0	1,422.7	241.6	182.4	1,645.5	521.6	1,887.0	552.5	8,416.0	1,523.8
Monterey	1,303.8	857.6	2,409.8	710.4	3,713.6	1,113.6	10.5	8.4	5,134.5	2,567.7	5,145.0	2,567.4	8,858.6	2,798.5
Napa	720.5	376.8	372.2	137.4	1,092.8	401.0	--	--	519.4	346.7	519.4	346.7	1,612.1	529.8
Nevada	5,305.5	1,052.7	383.2	241.0	5,688.7	1,079.9	--	--	42.6	42.0	42.6	42.0	5,731.3	1,080.7
Orange	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Placer	10,425.6	2,168.8	1,353.4	453.3	11,779.0	2,214.6	616.1	239.0	72.8	54.2	688.9	245.1	12,467.8	2,228.1
Plumas	37,680.8	5,000.7	721.4	322.9	38,402.3	5,014.7	805.7	425.7	--	--	805.7	425.7	39,208.0	5,032.8
Riverside	--	--	279.7	185.0	279.7	185.0	56.9	63.3	109.5	112.0	166.3	128.6	446.0	225.1
Sacramento	--	--	--	--	--	--	--	--	--	--	--	--	--	--
San Benito	--	--	701.6	364.9	701.6	364.9	--	--	--	--	--	--	701.6	364.9
San Bernardino	3,216.3	1,253.9	3,692.1	1,191.9	6,908.4	1,730.5	851.7	520.5	1,401.0	455.2	2,252.7	691.4	9,161.1	1,862.7
San Diego	1,288.8	1,055.6	428.7	174.3	1,717.5	1,068.4	539.8	603.5	565.3	283.3	1,105.2	666.7	2,822.7	1,259.1
San Joaquin	--	--	115.3	118.0	115.3	118.0	--	--	--	--	--	--	115.3	118.0
San Luis Obispo	--	--	1,442.0	438.9	1,442.0	438.9	--	--	--	--	--	--	1,442.0	438.9
San Mateo	1,043.6	480.6	--	--	1,043.6	480.6	340.8	244.3	455.8	399.2	796.6	465.4	1,840.2	669.0
Santa Barbara	185.1	159.1	1,456.3	587.6	1,641.4	612.7	1,385.9	1,114.4	704.9	314.9	2,090.8	1,158.1	3,732.2	1,310.1
Santa Clara	8.4	7.5	1,354.3	492.0	1,362.7	492.0	273.1	192.2	1,091.8	508.5	1,365.0	543.6	2,727.7	731.6
Santa Cruz	1,332.2	381.3	230.9	196.9	1,563.2	429.1	512.6	283.5	17.3	27.6	529.8	283.4	2,093.0	508.3
Shasta	22,181.1	2,983.6	2,798.7	663.8	24,979.8	3,077.6	6,398.9	2,715.1	525.9	259.6	6,924.8	2,727.4	31,904.6	4,107.8
Sierra	10,699.5	2,197.4	1,196.4	1,220.0	11,895.9	2,513.1	--	--	--	--	--	--	11,895.9	2,513.1
Siskiyou	35,997.9	3,210.7	2,503.8	710.2	38,501.8	3,278.7	8,758.4	1,733.3	675.3	312.5	9,433.7	1,754.7	47,935.5	3,712.6
Solano	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sonoma	4,164.4	896.6	791.6	318.3	4,956.1	950.6	1,139.1	642.0	106.1	114.8	1,245.2	652.2	6,201.3	1,151.8
Stanislaus	--	--	200.6	105.9	200.6	105.9	--	--	218.7	149.6	218.7	149.6	419.3	183.3
Sutter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tehama	8,896.0	1,595.6	1,728.5	467.0	10,624.5	1,661.2	2,463.1	1,088.3	172.2	106.8	2,635.3	1,093.5	13,259.7	1,988.8
Trinity	20,023.6	2,294.7	1,736.2	517.7	21,759.8	2,352.1	18,903.8	3,119.0	395.4	191.1	19,299.2	3,124.2	41,059.1	3,908.4
Tulare	3,446.4	1,315.5	1,652.7	641.4	5,099.1	1,463.4	10,023.5	1,674.4	4,675.9	1,632.6	14,699.4	2,332.5	19,798.5	2,752.2
Tuolumne	7,418.8	1,351.6	1,770.5	555.0	9,189.4	1,459.3	9,027.0	1,893.0	401.2	274.8	9,428.2	1,911.8	18,617.5	2,404.5
Ventura	7.2	6.6	1,691.9	762.8	1,699.1	762.8	1,941.1	1,433.0	820.2	532.8	2,761.3	1,528.9	4,460.4	1,708.6
Yolo	--	--	59.8	44.4	59.8	44.4	--	--	--	--	--	--	59.8	44.4
Yuba	1,682.3	550.7	226.8	94.9	1,909.1	558.5	--	--	32.2	35.7	32.2	35.7	1,941.3	559.6

All counties 300,652.1 9,584.7 65,426.2 4,235.4 366,078.2 10,274.9 104,205.6 5,926.9 28,245.6 3,509.6 132,451.2 6,631.4 498,529.4 11,944.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = fewer than 50 trees were estimated.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 16—Number of live trees^a on forest land, by county and broad species group, California, 2006-2015

County	Broad species group					
	Softwood species		Hardwood species		All species	
	Total	SE	Total	SE	Total	SE
Thousand trees						
Alameda	1,635.6	1,249.7	17,977.0	5,402.6	19,612.6	5,665.6
Alpine	67,263.2	12,438.3	11,473.8	7,176.2	78,737.0	14,516.1
Amador	31,120.0	10,358.9	48,701.7	15,755.5	79,821.8	19,497.8
Butte	157,651.8	28,417.4	177,932.1	29,248.6	335,583.9	45,455.4
Calaveras	64,834.6	15,767.6	94,648.0	21,164.6	159,482.6	27,048.0
Colusa	16,727.9	7,263.7	54,313.6	17,726.5	71,041.5	22,153.3
Contra Costa	206.2	183.3	13,503.4	5,070.2	13,709.6	5,165.0
Del Norte	155,573.1	23,249.2	231,027.7	36,363.8	386,600.8	47,930.8
El Dorado	234,155.2	27,783.1	95,106.5	21,005.3	329,261.7	37,156.9
Fresno	189,708.5	24,688.6	95,838.7	21,602.6	285,547.3	33,193.7
Glenn	20,588.0	6,585.0	43,481.0	11,588.4	64,069.0	14,197.5
Humboldt	424,177.4	41,730.6	622,275.3	55,548.7	1,046,452.7	79,422.6
Imperial	--	--	661.6	572.0	661.6	572.0
Inyo	59,586.3	10,061.6	22,582.9	8,694.6	82,169.2	13,641.3
Kern	37,591.6	6,418.9	129,730.5	22,801.2	167,322.1	25,275.3
Lake	76,653.2	21,351.6	121,442.8	28,156.0	198,096.0	38,429.7
Lassen	302,838.6	32,473.6	28,505.0	11,395.0	331,343.6	34,661.5
Los Angeles	7,286.9	3,242.9	78,231.5	28,498.9	85,518.4	28,878.2
Madera	114,561.1	20,356.1	59,801.8	16,588.8	174,362.9	27,211.6
Marin	4,330.2	2,057.2	15,622.6	4,841.8	19,952.8	5,839.9
Mariposa	85,244.8	15,932.4	127,604.4	26,214.1	212,849.2	33,208.4
Mendocino	335,882.2	29,473.3	628,682.5	55,733.6	964,564.7	73,662.0
Merced	--	--	3,179.3	1,791.7	3,179.3	1,791.7
Modoc	187,448.1	18,443.8	9,717.7	3,128.7	197,165.8	19,143.6
Mono	146,884.1	24,332.0	59,684.5	21,412.4	206,568.6	32,872.4
Monterey	11,668.7	3,998.0	122,486.8	37,630.6	134,155.5	38,113.6
Napa	10,144.8	3,035.1	45,808.4	12,174.2	55,953.2	13,983.3
Nevada	88,201.3	16,144.3	49,221.7	11,807.8	137,423.0	21,344.7
Orange	--	--	32.5	36.6	32.5	36.6
Placer	171,133.9	29,991.6	87,965.3	16,884.6	259,099.2	37,006.1
Plumas	433,809.0	39,134.4	102,276.3	24,471.3	536,085.2	48,716.1
Riverside	1,965.6	939.7	24,615.3	16,421.7	26,580.8	16,522.7
Sacramento	--	--	666.3	522.4	666.3	522.4
San Benito	3,631.2	1,456.6	14,477.6	4,943.2	18,108.8	5,322.7
San Bernardino	31,745.1	7,597.6	45,158.4	14,457.7	76,903.6	17,113.8
San Diego	1,817.1	1,352.7	7,921.3	3,950.1	9,738.5	4,175.3
San Joaquin	7.8	7.1	690.6	677.6	698.4	677.8
San Luis Obispo	1,421.2	664.5	23,843.2	4,385.0	25,264.4	4,481.4
San Mateo	9,948.8	3,811.4	20,294.7	6,244.2	30,243.5	9,024.0
Santa Barbara	2,075.6	921.7	27,219.5	10,450.3	29,295.1	10,512.2
Santa Clara	4,675.0	1,769.5	78,935.3	19,457.7	83,610.4	19,772.0
Santa Cruz	32,293.4	12,560.5	46,636.7	10,597.3	78,930.1	18,608.4
Shasta	407,703.6	37,909.4	347,792.5	40,697.1	755,496.1	60,478.0
Sierra	151,446.6	24,216.1	35,944.5	9,085.7	187,391.1	27,395.7
Siskiyou	661,230.8	43,994.9	394,365.5	43,993.5	1,055,596.2	65,438.7
Solano	--	--	3,414.8	1,955.1	3,414.8	1,955.1
Sonoma	68,701.1	12,950.8	122,254.9	18,020.4	190,956.1	26,908.5
Stanislaus	3,168.4	1,578.6	14,551.7	7,170.8	17,720.2	7,835.2
Sutter	--	--	8,730.6	8,877.9	8,730.6	8,877.9
Tehama	145,006.2	20,813.4	176,074.9	26,396.6	321,081.2	35,887.2
Trinity	399,843.2	35,333.9	322,281.2	34,982.4	722,124.5	55,797.0
Tulare	141,875.8	15,286.7	104,022.6	21,811.8	245,898.4	27,992.0
Tuolumne	193,240.5	20,434.1	102,965.4	20,581.6	296,205.9	30,593.1
Ventura	14,595.8	3,748.5	12,470.6	5,461.4	27,066.4	6,641.8
Yolo	578.1	300.4	4,648.1	1,694.3	5,226.2	1,799.5
Yuba	21,480.5	6,029.4	62,510.8	16,448.7	83,991.3	19,612.7
All counties	5,735,357.8	109,186.9	5,202,004.3	143,776.0	10,937,362.1	173,886.2

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — or not present= fewer than 50 trees were estimated.

^a Includes all live trees >= 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Counties not present had <50 acres forest cover by FIA definition

Table 17—Number of dead trees^a on forest land, by county and broad species group, California, 2006–2015

County	Broad species group					
	Softwood species		Hardwood species		All species	
	Total	SE	Total	SE	Total	SE
<i>Thousand trees</i>						
Alameda	--	--	800.1	284.7	800.1	284.7
Alpine	3,946.7	732.8	147.7	121.4	4,094.5	744.9
Amador	1,494.6	587.8	964.6	431.9	2,459.3	755.0
Butte	5,511.7	1,293.4	3,774.6	792.5	9,286.3	1,720.4
Calaveras	2,901.1	835.3	1,827.9	474.3	4,728.9	993.1
Colusa	1,823.7	1,258.9	850.8	287.9	2,674.5	1,405.3
Contra Costa	--	--	136.3	74.4	136.3	74.4
Del Norte	10,000.5	1,449.7	4,668.3	1,116.4	14,668.8	1,924.6
El Dorado	13,329.1	1,897.0	2,961.4	993.9	16,290.5	2,326.0
Fresno	11,346.0	1,502.7	1,937.7	495.0	13,283.7	1,593.5
Glenn	2,218.9	871.3	839.0	335.3	3,057.9	1,014.6
Humboldt	17,433.3	1,952.2	20,250.7	3,669.8	37,684.0	4,464.8
Imperial	--	--	129.4	87.5	129.4	87.5
Inyo	2,389.0	484.9	569.9	327.9	2,958.9	583.9
Kern	3,435.6	1,081.5	4,842.1	1,734.3	8,277.7	2,257.7
Lake	1,979.6	590.3	2,427.6	661.9	4,407.3	899.1
Lassen	10,840.2	1,490.0	2,179.5	1,015.4	13,019.7	1,814.7
Los Angeles	357.1	161.0	2,674.6	1,361.6	3,031.7	1,382.2
Madera	5,782.6	1,395.1	850.5	309.3	6,633.1	1,595.3
Marin	254.3	154.3	1,760.2	857.5	2,014.5	886.0
Mariposa	7,178.7	1,492.1	2,949.6	859.6	10,128.4	1,755.7
Mendocino	10,251.8	1,472.7	17,140.7	2,249.1	27,392.5	3,121.6
Merced	--	--	36.4	37.3	36.4	37.3
Modoc	11,132.5	2,160.8	1,274.2	380.2	12,406.6	2,252.3
Mono	6,129.0	1,312.8	2,287.0	755.9	8,416.0	1,523.8
Monterey	961.6	492.6	7,897.0	2,700.2	8,858.6	2,798.5
Napa	252.2	121.9	1,359.9	493.0	1,612.1	529.8
Nevada	4,682.7	938.4	1,048.6	347.1	5,731.3	1,080.7
Orange	--	--	--	--	--	--
Placer	9,533.9	1,821.1	2,933.9	708.8	12,467.8	2,228.1
Plumas	34,788.4	4,574.2	4,419.6	1,469.9	39,208.0	5,032.8
Riverside	166.3	128.6	279.7	185.0	446.0	225.1
Sacramento	--	--	--	--	--	--
San Benito	46.2	39.2	655.4	361.9	701.6	364.9
San Bernardino	6,031.0	1,164.3	3,130.1	1,213.5	9,161.1	1,862.7
San Diego	853.2	558.0	1,969.4	1,074.8	2,822.7	1,259.1
San Joaquin	--	--	115.3	118.0	115.3	118.0
San Luis Obispo	140.2	74.2	1,301.8	427.3	1,442.0	438.9
San Mateo	549.5	354.9	1,290.8	532.5	1,840.2	669.0
Santa Barbara	929.3	328.2	2,802.9	1,181.9	3,732.2	1,310.1
Santa Clara	209.7	86.9	2,517.9	698.7	2,727.7	731.6
Santa Cruz	848.5	281.9	1,244.5	384.6	2,093.0	508.3
Shasta	23,296.8	3,733.4	8,607.8	1,385.5	31,904.6	4,107.8
Sierra	9,936.2	2,150.9	1,959.7	1,160.2	11,895.9	2,513.1
Siskiyou	37,154.0	2,939.7	10,781.5	1,742.5	47,935.5	3,712.6
Solano	--	--	--	--	--	--
Sonoma	1,619.5	418.5	4,581.8	990.3	6,201.3	1,151.8
Stanislaus	38.7	38.6	380.6	179.1	419.3	183.3
Sutter	--	--	--	--	--	--
Tehama	9,627.5	1,660.8	3,632.3	892.1	13,259.7	1,988.8
Trinity	27,044.5	2,792.2	14,014.6	2,017.1	41,059.1	3,908.4
Tulare	14,097.2	1,844.6	5,701.3	1,789.0	19,798.5	2,752.2
Tuolumne	15,422.8	2,177.0	3,194.7	715.5	18,617.5	2,404.5
Ventura	1,827.9	686.2	2,632.4	1,374.5	4,460.4	1,708.6
Yolo	12.8	12.8	46.9	42.5	59.8	44.4
Yuba	899.9	321.7	1,041.4	363.9	1,941.3	559.6
All counties	330,706.7	8,995.7	167,822.7	7,707.1	498,529.4	11,944.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — or not present= fewer than 50 trees were estimated.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 18—Number of live trees^a on forest land, by species group and diameter class, California 2006-2015

Species group	Diameter class (inches)											
	1.0-2.9		3.0-4.9		5.0-6.9		7.0-8.9		9.0-10.9		11.0-12.9	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand trees</i>												
Softwoods:												
Douglas-fir	497,073.8	28,967.7	213,555.4	13,730.4	132,651.7	5,170.4	96,304.9	3,810.6	71,622.1	2,885.9	52,687.9	2,232.6
Incense-cedar	249,733.7	23,908.7	131,750.6	11,432.3	67,756.0	3,794.5	42,403.5	2,414.6	30,655.1	1,892.1	20,769.2	1,378.8
Lodgepole pine	113,730.7	18,229.1	63,244.7	11,514.9	36,373.9	4,401.3	23,650.6	2,369.7	20,583.3	2,171.7	14,608.2	1,356.0
Ponderosa and Jeffrey pines	241,661.0	19,613.5	144,315.6	10,661.6	105,751.5	5,006.8	84,405.4	4,206.2	65,586.5	3,323.5	51,519.6	2,466.4
Redwood	149,199.5	20,715.0	46,530.6	6,697.6	33,619.5	3,235.2	24,608.7	2,280.3	18,864.2	1,849.2	16,230.3	1,664.4
Sitka spruce	1,520.1	1,117.0	1,030.3	707.2	666.1	354.4	698.9	295.2	319.7	146.1	302.6	204.1
Sugar pine	47,580.6	6,571.2	20,801.2	4,164.1	11,519.7	1,112.4	9,349.5	861.0	7,188.6	688.3	5,642.1	535.9
True fir	588,935.6	36,515.1	264,818.3	16,392.8	156,152.3	6,137.2	111,816.5	4,408.7	86,685.9	3,536.3	62,214.2	2,625.1
Western hemlock	9,631.3	4,789.6	4,200.9	2,021.8	1,360.5	566.9	862.5	271.4	626.1	203.0	497.4	172.8
Western juniper	35,989.5	5,238.8	27,792.7	5,130.2	17,738.5	1,562.8	14,918.9	1,295.1	12,182.4	1,054.1	7,611.6	708.1
Western white pine	21,407.7	4,661.5	10,136.3	2,547.6	6,401.4	857.0	4,301.9	662.2	3,243.7	495.2	2,009.0	344.9
Woodland softwoods	42,305.6	7,313.3	31,414.4	5,525.9	20,069.3	2,045.5	17,172.1	1,519.4	14,115.2	1,238.8	10,947.6	1,049.0
Other western softwoods	174,563.1	24,043.4	62,166.5	9,455.5	38,965.4	3,450.7	26,893.1	2,481.8	16,703.5	1,391.7	11,386.0	1,053.8
Total	2,173,332.3	70,577.9	1,021,757.4	32,949.2	629,025.9	12,284.1	457,386.5	8,617.5	348,376.2	6,661.3	256,425.5	5,008.9
Hardwoods:												
Cottonwood and aspen	60,517.1	16,543.0	16,249.8	6,456.3	3,785.2	1,267.5	1,577.2	469.3	768.8	227.1	696.4	240.9
Oak	1,190,670.7	75,805.4	581,403.1	33,756.7	366,512.0	12,832.5	236,145.7	7,811.3	142,809.8	4,772.6	80,833.1	2,932.7
Red alder	27,234.2	12,188.2	11,833.7	5,864.6	6,196.3	1,259.1	5,853.6	952.1	4,610.4	761.5	4,195.4	835.5
Tanoak	714,126.0	51,260.8	222,565.8	16,747.2	126,030.1	7,589.7	76,160.3	4,568.8	47,813.1	3,118.1	29,620.8	2,023.7
Woodland hardwoods	22,517.8	6,574.8	15,456.4	6,246.6	11,686.4	2,721.2	6,662.0	1,405.5	5,358.6	1,126.3	2,992.3	628.0
Other western hardwoods	570,065.5	45,135.4	175,260.3	15,702.9	88,305.9	4,727.2	54,988.7	2,956.2	33,694.3	1,921.2	20,645.1	1,336.1
Total	2,585,131.3	104,867.7	1,022,769.1	42,367.9	602,515.9	15,968.2	381,387.5	9,634.7	235,055.0	6,111.0	138,983.0	4,010.6
All species groups	4,758,463.6	126,630.1	2,044,526.6	52,913.0	1,231,541.8	19,175.2	838,774.0	12,095.7	583,431.2	8,467.5	395,408.6	6,024.3

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = fewer than 50 trees were estimated.

^a Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 18—Number of live trees^a on forest land, by species group and diameter class, California, 2006-2015

Species group	Diameter class (inches)											
	13.0-14.9		15.0-16.9		17.0-18.9		19.0-20.9		21.0-22.9		23.0-24.9	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand trees</i>												
Softwoods:												
Douglas-fir	39,852.4	1,790.3	29,001.1	1,391.4	24,034.1	1,236.4	17,060.0	999.1	11,609.3	761.3	8,725.5	532.5
Incense-cedar	12,783.1	948.2	10,498.6	804.1	7,606.6	645.4	6,364.8	571.6	4,350.9	486.5	3,049.3	307.9
Lodgepole pine	12,801.4	1,239.6	8,720.7	902.1	7,596.2	759.0	6,514.9	669.9	4,819.5	558.9	3,304.2	398.9
Ponderosa and Jeffrey pines	37,456.5	1,847.8	28,244.7	1,437.5	21,888.2	1,212.1	15,770.0	945.6	12,379.9	786.6	8,506.1	536.1
Redwood	12,287.3	1,168.5	10,362.6	988.0	7,637.6	741.7	6,697.5	783.3	5,454.0	634.4	4,550.6	499.5
Sitka spruce	351.4	178.2	286.1	198.4	286.1	198.4	149.9	94.9	343.9	226.0	49.9	26.4
Sugar pine	4,029.8	445.1	3,229.3	397.1	2,875.2	360.1	2,461.4	321.3	2,210.5	319.0	1,922.3	254.4
True fir	49,102.2	2,204.1	39,751.5	1,868.4	29,210.4	1,529.3	23,550.3	1,241.8	16,437.8	1,006.0	12,463.9	720.3
Western hemlock	429.8	193.5	254.8	116.0	278.2	118.0	207.5	109.2	211.7	108.4	6.3	6.4
Western juniper	6,095.6	644.7	3,752.9	449.6	3,819.8	464.6	1,941.9	297.8	1,461.1	247.2	1,014.5	174.9
Western white pine	1,524.3	299.4	1,176.2	274.6	1,328.3	309.1	805.9	215.5	588.5	158.4	451.6	92.6
Woodland softwoods	9,802.1	908.3	7,418.4	756.2	5,818.0	587.5	3,508.1	447.4	2,164.4	358.4	1,446.8	227.3
Other western softwoods	8,121.3	757.0	6,776.3	707.5	5,749.2	647.0	4,803.9	608.7	3,443.7	476.7	2,182.6	298.6
Total	194,637.2	3,938.5	149,473.3	3,215.9	118,127.9	2,743.9	89,836.3	2,277.6	65,475.4	1,908.8	47,673.6	1,323.4
Hardwoods:												
Cottonwood and aspen	549.4	188.5	581.9	228.3	264.8	133.5	311.0	132.1	179.2	84.1	242.0	108.2
Oak	49,649.0	2,063.5	31,292.6	1,369.9	21,417.2	1,105.4	12,890.8	805.6	8,514.9	633.1	5,697.7	441.3
Red alder	1,834.2	438.0	1,389.1	347.8	754.9	232.2	321.6	111.6	86.4	58.0	138.9	70.9
Tanoak	17,140.7	1,326.1	9,974.5	913.0	6,265.7	683.4	5,263.7	570.5	3,433.0	453.1	2,140.1	312.2
Woodland hardwoods	1,780.4	403.9	1,292.2	329.2	835.2	222.7	625.5	170.5	142.2	74.6	99.1	49.6
Other western hardwoods	13,668.1	947.3	7,718.8	687.9	6,485.7	611.1	3,090.6	376.2	2,181.2	313.1	1,658.1	222.7
Total	84,621.7	2,764.7	52,249.1	1,877.0	36,023.6	1,501.4	22,503.3	1,117.5	14,536.9	859.5	9,975.9	617.2
All species groups	279,259.0	4,606.1	201,722.3	3,564.7	154,151.4	3,037.7	112,339.6	2,480.0	80,012.3	2,067.2	57,649.5	1,445.4

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = fewer than 50 trees were estimated.

^a Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 18--Number of live trees^a on forest land, by species group and diameter class, California 2006-2015 (Continued)

Species group	Diameter class (inches)											
	25.0-26.9		27.0-28.9		29.0-30.9		31.0-32.9		33.0-34.9		35.0-36.9	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand trees</i>												
Softwoods:												
Douglas-fir	7,778.3	335.4	5,998.0	283.7	5,105.2	257.6	4,122.5	217.0	3,416.0	191.4	2,683.5	172.5
Incense-cedar	2,902.3	202.5	1,930.9	145.3	1,540.7	129.6	1,203.1	106.1	1,054.9	97.2	767.2	82.0
Lodgepole pine	2,655.9	243.5	1,855.5	186.8	1,362.5	165.9	956.0	119.1	554.6	86.9	422.8	62.7
Ponderosa and Jeffrey pines	6,008.2	297.6	5,165.7	251.8	3,869.4	206.8	3,038.1	186.9	2,373.1	159.5	1,713.7	130.7
Redwood	3,949.3	388.8	3,248.6	292.9	2,478.8	256.7	1,920.4	211.0	1,591.8	180.2	1,147.0	138.0
Sitka spruce	89.8	34.9	48.3	22.3	62.8	26.0	22.7	12.1	46.3	19.8	25.3	20.6
Sugar pine	1,599.4	125.5	1,619.5	129.1	1,274.5	111.2	948.9	93.9	1,041.2	94.8	743.1	83.1
True fir	9,712.3	459.7	8,578.8	422.1	6,431.1	342.0	5,228.6	300.3	3,696.0	226.5	3,181.0	217.0
Western hemlock	67.4	24.9	41.1	21.4	27.3	13.3	20.6	15.5	6.0	6.3	7.2	6.9
Western juniper	657.6	83.9	414.8	63.1	314.8	51.5	250.0	46.2	196.8	39.0	119.3	32.0
Western white pine	521.5	72.4	370.8	67.9	392.3	62.0	357.4	65.0	262.9	48.4	223.1	40.7
Woodland softwoods	927.4	119.8	544.5	82.6	264.5	48.4	242.3	50.3	189.0	50.3	150.5	35.1
Other western softwoods	1,645.0	175.8	1,263.7	139.5	953.8	133.0	750.6	106.9	521.3	86.1	399.3	69.4
Total	38,514.4	829.9	31,080.2	692.2	24,078.0	598.3	19,061.2	506.2	14,949.6	426.8	11,582.9	368.6
Hardwoods:												
Cottonwood and aspen	69.3	25.1	110.5	37.2	40.9	16.3	33.5	17.1	6.2	6.3	18.7	11.0
Oak	3,211.4	172.1	2,079.7	138.1	1,388.1	106.4	1,110.5	94.8	723.4	79.2	399.7	54.6
Red alder	24.0	12.5	7.0	6.7	27.4	13.2	14.8	9.7	--	--	--	--
Tanoak	1,060.8	122.0	747.3	94.8	404.6	62.9	191.8	37.0	135.1	35.0	98.8	28.3
Woodland hardwoods	143.8	46.0	54.7	25.2	39.2	16.0	12.1	12.4	--	--	22.1	12.3
Other western hardwoods	867.8	88.6	586.4	68.7	417.3	61.3	265.1	54.5	162.0	36.2	166.7	40.2
Total	5,377.1	241.5	3,585.6	192.9	2,317.6	146.2	1,627.8	117.3	1,026.7	94.9	706.0	77.2
All species groups	43,891.5	854.9	34,665.8	715.8	26,395.5	613.1	20,689.0	518.4	15,976.4	438.2	12,288.9	376.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = fewer than 50 trees were estimated.

^a Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 18—Number of live trees^a on forest land, by species group and diameter class, California 2006–2015 (Continued)

Species group	Diameter class (inches)																	
	37.0-38.9		39.0-40.9		41.0-42.9		43.0-44.9		45.0-46.9		47.0-48.9		49.0+		All classes			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand trees</i>																		
Softwoods:																		
Douglas-fir	2,449.2	159.9	2,106.2	145.0	1,425.4	119.0	1,445.6	121.8	1,201.5	105.5	890.4	88.5	3,752.3	283.2	1,236,552.2	45,751.1		
Incense-cedar	717.4	82.8	508.6	64.9	417.0	54.8	346.8	48.6	228.9	40.5	168.0	36.5	657.7	86.1	600,164.8	35,659.2		
Lodgepole pine	257.7	44.3	228.3	47.0	132.4	32.2	107.0	29.7	61.9	20.1	32.1	14.9	24.4	17.2	324,599.6	33,594.0		
Ponderosa and Jeffrey pines	1,137.8	101.0	1,210.6	100.3	774.5	78.0	507.0	60.6	462.2	57.9	337.6	52.6	672.9	85.0	844,755.9	34,401.4		
Redwood	1,055.2	137.1	737.2	100.8	513.9	80.8	515.1	83.1	338.4	60.4	219.1	43.8	1,876.6	331.1	355,634.0	32,438.6		
Sitka spruce	25.5	13.0	12.4	9.0	28.5	13.6	20.8	11.6	8.3	7.3	--	--	40.4	25.1	6,436.1	2,431.7		
Sugar pine	514.6	62.5	461.8	58.4	334.7	47.7	232.4	41.1	267.0	41.0	234.0	40.6	787.0	101.4	128,868.4	10,832.0		
True fir	2,438.4	176.4	2,046.9	164.5	1,564.8	148.1	1,043.7	98.6	924.5	102.9	734.1	79.6	1,730.8	170.1	1,488,449.9	59,977.9		
Western hemlock	--	--	--	--	5.8	6.5	--	--	13.4	9.5	--	--	23.1	25.9	18,778.9	6,883.8		
Western juniper	167.2	39.2	112.6	32.5	89.5	24.2	41.0	16.6	62.2	21.9	45.8	19.5	182.4	46.7	136,973.6	11,642.0		
Western white pine	293.8	51.7	223.0	40.0	125.2	29.4	139.1	33.0	75.3	23.8	107.3	28.3	296.4	59.2	56,762.8	7,402.1		
Woodland softwoods	96.3	26.5	64.5	21.9	60.5	23.2	23.5	12.4	30.7	14.0	6.1	6.2	24.4	16.2	168,806.0	15,002.0		
Other western softwoods	369.4	64.3	214.4	47.8	169.5	45.6	111.9	36.2	97.1	28.7	92.1	33.4	232.9	67.2	368,575.5	33,796.8		
Total	9,522.5	328.7	7,926.6	282.5	5,641.7	242.4	4,533.8	206.6	3,771.3	186.3	2,866.7	153.0	10,301.4	548.2	5,735,357.8	109,186.9		
Hardwoods:																		
Cottonwood and aspen	12.9	13.1	--	--	--	--	--	--	--	--	--	--	6.0	6.2	86,020.8	22,523.1		
Oak	346.8	49.6	217.5	38.3	174.5	39.2	67.8	21.0	69.7	21.1	35.5	15.4	89.6	23.9	2,737,750.8	105,763.4		
Red alder	--	--	--	--	--	--	--	--	--	--	--	--	--	--	64,521.9	17,156.2		
Tanoak	67.3	22.9	30.5	14.1	41.8	16.4	5.8	6.5	17.4	10.8	15.4	10.0	25.4	12.9	1,263,376.1	73,255.0		
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	69,720.0	16,252.1		
Other western hardwoods	128.0	32.7	61.0	21.9	53.9	20.8	41.0	16.3	28.2	13.5	20.7	11.6	54.6	18.7	980,614.7	55,048.8		
Total	555.1	66.2	308.9	46.3	270.2	48.2	114.6	27.3	115.3	29.1	71.6	21.7	175.7	33.5	5,202,004.3	143,776.0		
All species groups	10,077.5	335.3	8,235.5	286.0	5,911.9	247.6	4,648.3	208.7	3,886.5	188.6	2,938.3	154.7	10,477.1	549.1	10,937,362.1	173,886.2		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = fewer than 50 trees were estimated.

^a Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 19—Number of dead trees^a on forest land, by species group and diameter class, California, 2006–2015

Species group	Diameter class (inches)																	
	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			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand trees</i>																		
Softwoods:																		
Douglas-fir	13,747.3	1,085.7	9,027.3	791.2	6,122.7	686.3	4,901.4	530.9	3,394.2	396.2	3,501.5	476.3	1,871.6	300.5	1,631.0	267.9		
Incense-cedar	10,909.8	1,149.6	6,558.4	701.9	3,061.7	439.8	2,695.5	398.8	1,402.5	246.6	977.4	206.9	953.8	188.3	545.3	144.5		
Lodgepole pine	4,835.5	985.5	2,706.6	627.8	2,184.9	597.9	2,007.2	463.4	1,656.7	366.5	1,388.2	258.8	667.7	182.8	1,246.8	241.6		
Ponderosa and Jeffrey pines	10,008.2	1,077.5	6,595.6	815.5	5,015.3	670.0	2,720.9	389.9	2,465.0	331.4	1,715.5	260.2	1,541.6	267.3	772.5	178.4		
Redwood	3,002.8	619.1	1,285.5	290.0	1,454.6	286.4	741.8	187.7	44.4	41.6	450.6	144.8	533.9	154.9	172.8	81.9		
Sitka spruce	82.6	56.7	41.9	40.5	41.9	40.5	--	--	--	--	--	--	--	--	--	--	--	--
Sugar pine	2,445.8	430.4	2,950.5	462.6	1,644.1	278.4	1,384.9	292.1	1,035.7	251.9	861.4	189.6	411.4	123.9	355.8	125.9		
True fir	27,524.3	1,799.0	21,153.7	1,276.6	16,241.2	1,098.3	13,384.3	976.0	9,915.4	747.5	7,719.7	625.6	5,663.5	569.3	5,159.3	525.3		
Western hemlock	124.1	70.7	86.4	58.0	197.5	88.4	38.2	38.6	--	--	--	--	--	--	--	--	--	--
Western juniper	589.1	184.0	732.5	183.4	279.3	102.9	208.8	91.2	112.4	65.6	266.7	100.3	74.3	53.7	126.4	69.0		
Western white pine	1,383.7	348.0	580.2	216.1	829.7	226.4	447.3	141.5	230.1	128.7	126.6	76.3	154.3	78.0	267.6	140.5		
Woodland softwoods	3,239.8	519.8	2,576.9	422.6	2,127.1	375.2	1,700.0	343.1	1,190.1	259.0	997.6	216.2	595.6	150.2	493.9	155.5		
Other western softwoods	4,529.1	729.1	3,203.4	594.8	2,369.4	460.5	2,052.4	413.4	1,617.3	298.7	949.3	223.2	673.8	170.9	664.6	197.0		
Total	82,422.1	3,278.0	57,498.9	2,332.7	41,569.5	1,858.3	32,282.8	1,527.0	23,063.9	1,142.0	18,954.4	972.0	13,141.3	812.9	11,435.9	754.7		
Hardwoods:																		
Cottonwood and aspen	930.8	414.8	272.9	119.4	282.2	119.4	136.3	89.3	116.3	65.6	71.1	51.0	35.2	35.9	--	--		
Oak	45,127.1	3,159.8	24,373.8	1,845.6	11,254.6	1,176.2	5,227.0	550.8	3,301.6	395.7	2,436.2	340.1	1,711.5	264.6	766.3	181.1		
Red alder	1,524.4	377.6	1,039.4	297.5	830.0	242.1	422.9	152.0	118.7	89.8	83.9	81.0	128.5	70.6	--	--		
Tanoak	11,240.3	1,513.6	6,769.3	975.8	4,769.7	774.8	2,819.7	497.0	1,904.2	423.1	962.9	248.6	617.6	166.4	402.8	137.2		
Woodland hardwoods	2,124.1	600.4	1,980.6	528.6	1,447.3	321.6	711.1	249.0	540.7	198.7	268.2	134.5	198.3	103.5	130.2	71.4		
Other western hardwoods	12,138.6	1,195.9	6,398.0	750.8	3,598.7	459.0	2,306.2	323.3	987.4	209.2	770.6	171.7	506.6	140.8	271.5	101.8		
Total	73,085.2	3,891.8	40,833.9	2,385.2	22,182.6	1,571.4	11,623.3	872.1	6,969.0	651.0	4,592.8	491.9	3,197.6	365.4	1,570.7	258.6		
All species groups	155,507.3	5,196.5	98,332.9	3,374.6	63,752.0	2,419.2	43,906.1	1,758.1	30,032.8	1,312.9	23,547.2	1,084.5	16,338.9	893.9	13,006.6	793.0		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = fewer than 50 trees were estimated.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 19—Number of dead trees^a on forest land, by species group and diameter class, California, 2006-2015 (Continued)

Species group	Diameter class (inches)															
	21.0-22.9		23.0-24.9		25.0-26.9		27.0-28.9		29.0-30.9		31.0-32.9		33.0-34.9		35.0-36.9	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand trees</i>																
Softwoods:																
Douglas-fir	1,159.5	221.7	1,170.1	183.0	1,011.8	92.5	860.5	95.6	671.1	73.2	650.1	78.5	660.3	76.2	517.7	61.9
Incense-cedar	514.3	138.0	380.0	99.3	281.4	47.6	237.6	38.5	266.3	43.0	256.2	43.3	185.2	37.3	95.1	26.3
Lodgepole pine	652.5	181.0	383.1	85.8	515.9	72.6	383.0	59.6	273.3	47.7	158.7	34.2	118.4	27.8	111.0	30.7
Ponderosa and Jeffrey pines	1,023.4	201.6	712.3	132.1	623.5	74.8	493.2	60.1	448.4	57.8	475.2	56.1	284.3	45.4	206.9	37.7
Redwood	265.3	102.3	298.2	115.2	113.1	27.1	200.8	38.7	177.6	43.0	139.9	31.8	188.1	35.9	193.2	38.8
Sitka spruce	50.3	44.1	--	--	6.4	6.5	--	--	--	--	--	--	--	--	--	--
Sugar pine	242.9	96.9	193.7	55.3	240.9	42.2	187.8	35.5	198.3	35.1	164.3	38.9	119.5	29.1	79.6	22.9
True fir	4,286.9	438.5	3,299.8	326.5	2,346.0	168.7	2,018.1	145.2	1,614.8	129.1	1,333.0	117.8	1,081.2	97.4	893.0	88.2
Western hemlock	44.5	42.7	--	--	7.4	7.1	6.3	6.4	--	--	14.8	14.2	--	--	5.8	6.5
Western juniper	38.5	38.8	102.2	55.2	43.8	18.7	11.4	8.5	24.2	12.3	19.1	11.2	7.2	6.6	12.6	13.0
Western white pine	177.6	82.6	106.7	79.4	132.4	33.9	78.0	24.2	62.4	21.5	56.1	19.0	43.5	16.8	31.0	14.5
Woodland softwoods	43.1	40.0	86.9	52.1	88.8	23.6	43.2	18.8	44.0	19.1	13.4	9.5	32.3	14.5	12.7	9.1
Other western softwoods	506.1	141.9	610.8	142.8	234.1	48.9	178.7	36.8	179.1	38.6	122.5	28.5	89.8	24.1	48.3	20.1
Total	9,004.8	625.1	7,343.7	468.8	5,645.5	241.6	4,698.7	211.3	3,959.4	190.7	3,403.2	173.6	2,809.8	148.6	2,206.9	130.7
Hardwoods:																
Cottonwood and aspen	--	--	5.8	6.4	--	--	--	--	--	--	--	--	16.5	10.4	--	--
Oak	772.7	173.2	503.2	115.2	279.5	42.1	302.9	47.9	155.4	32.3	166.7	34.8	80.8	22.6	48.4	17.5
Red alder	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak	278.0	118.8	78.1	40.8	63.2	20.3	49.3	20.4	48.3	17.5	22.8	12.1	12.9	9.0	25.2	12.7
Woodland hardwoods	93.3	60.8	13.1	9.0	--	--	11.9	8.6	--	--	11.8	8.6	--	--	--	--
Other western hardwoods	237.9	95.2	152.5	70.1	39.2	15.7	21.6	11.7	35.4	15.2	13.6	9.3	8.0	7.2	21.6	11.7
Total	1,382.0	238.2	752.7	143.2	381.9	50.8	385.7	54.0	239.1	39.6	214.9	38.9	118.2	27.4	95.2	24.6
All species groups	10,386.7	671.8	8,096.4	489.7	6,027.4	246.2	5,084.3	217.6	4,198.5	194.0	3,618.1	177.9	2,928.0	150.7	2,302.0	133.4

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = fewer than 50 trees were estimated.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 19--Number of dead trees^a on forest land, by species group and diameter class, California 2006-2015 (Continued)

Species group	Diameter class (inches)																	
	37.0-38.9		39.0-40.9		41.0-42.9		43.0-44.9		45.0-46.9		47.0-48.9		49.0 +		All classes			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand trees</i>																		
Softwoods:																		
Douglas-fir	351.1	51.7	297.7	48.5	287.4	46.8	278.9	47.7	230.2	38.8	238.9	41.1	750.1	92.2	53,332.3	2,988.5		
Incense-cedar	139.3	29.5	71.9	21.4	92.3	24.1	73.0	21.3	36.9	15.3	41.2	16.1	111.1	26.4	29,886.2	2,265.0		
Lodgepole pine	72.2	24.2	44.4	17.0	42.3	16.6	19.4	11.5	15.7	10.3	6.3	6.5	13.7	9.7	19,503.6	2,915.5		
Ponderosa and Jeffrey pines	209.4	37.6	116.2	27.5	128.2	28.6	141.5	31.2	72.3	24.1	67.8	23.1	174.8	37.6	36,011.9	2,825.7		
Redwood	180.9	33.9	149.1	36.2	175.8	36.4	142.2	32.7	117.2	29.6	123.1	28.1	1,735.7	222.8	11,886.4	1,319.5		
Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--	223.2	108.5		
Sugar pine	111.1	30.5	139.9	33.3	79.2	24.2	103.7	28.1	44.7	17.0	37.8	15.4	263.0	44.8	13,296.0	1,422.7		
True fir	488.1	62.5	484.7	63.3	482.3	61.2	421.7	63.2	345.9	53.3	229.9	39.0	904.4	112.1	126,991.3	5,585.7		
Western hemlock	13.2	9.6	--	--	--	--	6.0	6.3	--	--	5.8	6.5	--	--	549.9	190.8		
Western juniper	6.1	6.1	--	--	6.3	6.5	--	--	6.1	6.1	--	--	6.0	6.1	2,672.8	450.0		
Western white pine	62.9	20.4	24.4	13.1	16.5	10.3	18.3	14.3	12.8	9.5	17.4	10.9	28.8	14.0	4,888.1	840.4		
Woodland softwoods	7.1	6.6	--	--	6.1	6.1	--	--	--	--	--	--	--	--	13,298.6	1,510.8		
Other western softwoods	43.6	17.1	--	--	27.1	13.6	17.9	11.0	10.7	12.1	--	--	38.3	16.0	18,166.3	2,073.7		
Total	1,685.1	113.7	1,328.5	103.1	1,343.5	98.0	1,222.6	99.8	892.5	81.9	768.1	71.7	4,025.9	276.4	330,706.7	8,995.7		
Hardwoods:																		
Cottonwood and aspen	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1,867.0	551.0		
Oak	53.2	18.5	17.6	10.5	21.2	11.7	6.3	6.4	6.0	6.0	--	--	11.4	8.7	96,623.3	5,744.9		
Red alder	11.1	8.7	--	--	--	--	--	--	--	--	--	--	--	--	4,158.8	812.8		
Tanoak	--	--	11.9	8.7	9.4	8.0	7.4	6.9	--	--	--	--	--	--	30,092.9	3,716.0		
Woodland hardwoods	6.1	6.2	--	--	--	--	--	--	--	--	--	--	--	--	7,536.6	1,745.4		
Other western hardwoods	--	--	--	--	--	--	15.0	9.9	9.4	8.0	--	--	12.1	9.1	27,544.1	2,134.9		
Total	70.3	21.4	29.6	13.6	30.6	14.1	28.7	13.6	15.4	10.0	--	--	23.5	12.6	167,822.7	7,707.1		
All species groups	1,755.4	115.5	1,358.1	104.9	1,374.1	98.9	1,251.2	100.7	907.9	82.9	768.1	71.7	4,049.4	276.6	498,529.4	11,944.9		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = fewer than 50 trees were estimated.

^a Includes all dead trees >= 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 20—Number of live trees^a on forest land, by forest type group and ownership group, California, 2006-2015

Forest type group	Ownership Group													
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All Private		All owners	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand trees</i>														
Softwoods:														
California mixed conifer	1,907,242.2	74,206.3	142,143.1	19,933.2	29,970.7	9,468.8	676,248.2	50,787.0	267,833.8	37,403.2	944,082.1	60,955.6	3,023,438.0	97,601.1
Douglas-fir	154,905.2	28,620.6	22,109.0	8,625.4	28,393.3	10,913.3	262,904.0	42,887.0	139,155.1	22,094.4	402,059.1	47,651.4	607,466.6	57,235.1
Fir / spruce / mtn. hemlock	489,533.4	43,786.9	47,131.7	13,327.5	9,048.8	6,223.8	61,323.5	14,118.6	10,965.8	4,375.1	72,289.3	14,748.4	618,003.2	48,469.6
Lodgepole pine	251,894.3	34,882.9	60,270.1	12,707.8	4,331.8	3,811.9	18,645.8	10,822.0	21,141.7	11,346.4	39,787.6	15,677.3	356,283.7	40,424.3
Pinyon / juniper woodlands	96,792.1	13,555.1	62,303.6	10,232.0	6,116.8	2,281.2	8,414.7	3,962.3	15,859.7	9,102.9	24,274.4	9,926.7	189,486.9	19,789.8
Ponderosa pine	310,651.9	27,630.4	9,335.7	3,587.0	6,669.2	6,307.7	95,660.2	15,276.3	98,616.9	17,173.6	194,277.1	22,730.4	520,933.9	36,420.4
Redwood	2,104.8	1,178.5	11,080.0	5,231.3	34,974.1	10,023.1	245,231.0	37,559.6	93,599.0	17,365.1	338,830.1	40,805.5	386,988.9	42,378.0
Western juniper	70,382.1	10,056.7	37,444.8	7,292.2	3,384.0	2,247.8	9,775.9	3,859.5	23,730.6	5,054.1	33,506.5	6,338.2	144,717.5	14,138.6
Western white pine	33,462.3	8,154.0	1,204.5	1,314.4	--	--	--	--	--	--	--	--	34,666.8	8,259.2
Other western softwoods	96,967.5	19,676.5	42,491.6	16,095.7	5,352.0	5,799.1	16,023.2	8,043.7	19,944.6	14,944.1	35,967.9	16,971.4	180,778.9	31,111.1
Total	3,413,935.8	92,016.3	435,514.1	33,555.0	128,240.6	19,174.8	1,394,226.7	74,731.3	690,847.3	52,779.4	2,085,074.0	84,825.6	6,062,764.5	128,988.0
Hardwoods:														
Alder / maple	16,383.3	9,596.8	25,771.6	11,464.8	3,027.6	2,291.6	51,395.6	18,568.2	22,460.8	8,592.0	73,856.4	20,413.5	119,039.0	25,388.5
Aspen / birch	44,010.4	16,095.9	1,664.4	1,213.9	1,579.6	1,759.0	14,834.3	14,262.6	2,300.8	1,875.2	17,135.1	14,385.3	64,389.5	21,692.9
Elm / ash / cottonwood	1,605.8	1,664.0	--	--	828.5	687.9	6.0	6.2	1,681.6	953.0	1,687.7	953.0	4,122.0	2,037.2
Tanoak / laurel	348,681.3	50,577.9	42,438.6	14,264.1	84,772.4	22,694.5	432,133.2	53,428.0	487,126.6	54,386.9	919,259.8	74,201.7	1,395,152.1	93,337.4
Western oak	1,172,212.3	83,941.2	262,688.1	42,963.4	93,219.0	14,583.3	372,703.8	42,196.4	1,109,104.1	62,944.4	1,481,807.9	73,984.0	3,009,927.3	120,424.3
Woodland hardwoods	33,170.2	11,229.4	3,448.5	1,502.9	7,112.2	5,491.3	13,364.0	12,858.0	974.9	602.4	14,338.8	12,872.1	58,069.7	18,005.5
Other hardwoods	41,907.4	13,680.2	13,816.6	7,509.2	27,930.8	14,716.1	34,956.1	15,562.1	66,307.9	15,388.0	101,264.0	21,862.3	184,918.8	30,624.2
Total	1,657,970.6	99,120.2	349,827.9	46,843.6	218,470.1	30,595.1	919,392.9	73,376.1	1,689,956.8	82,162.8	2,609,349.7	104,322.8	4,835,618.4	153,217.9
Nonstocked	24,597.9	14,041.9	248.6	127.9	--	--	13,892.1	9,725.0	240.7	118.8	14,132.7	9,725.6	38,979.2	17,081.5
All forest types	5,096,504.3	120,800.3	785,590.7	54,742.6	346,710.7	33,695.7	2,327,511.6	97,945.3	2,381,044.8	93,520.4	4,708,556.5	115,535.2	10,937,362.1	173,886.2

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = fewer than 50 trees were estimated.

^aIncludes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 21—Number of dead trees^a on forest land, by forest type group and ownership group, California, 2006-2015

Forest type group	Ownership Group													
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All Private		All owners	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand trees</i>														
Softwoods:														
California mixed conifer	116,731.7	5,732.2	11,376.3	1,751.7	1,726.7	650.9	21,031.2	1,974.3	6,914.4	1,099.3	27,945.6	2,218.6	157,780.3	6,380.4
Douglas-fir	8,240.6	1,613.4	1,789.8	879.7	1,641.6	736.1	6,096.8	1,454.4	6,956.6	1,608.9	13,053.4	2,153.2	24,725.4	2,924.6
Fir / spruce / mtn. hemlock	47,373.7	4,162.0	5,953.6	1,517.1	1,029.9	809.1	3,438.8	926.3	765.6	394.1	4,204.4	1,004.3	58,561.6	4,616.6
Lodgepole pine	9,321.3	1,309.8	3,077.0	785.8	174.6	131.3	852.2	478.7	940.2	409.5	1,792.4	629.8	14,365.4	1,655.2
Pinyon / juniper woodlands	5,338.1	883.7	2,942.8	593.2	398.5	229.9	124.8	69.4	1,143.2	476.3	1,268.0	481.3	9,947.4	1,189.8
Ponderosa pine	9,809.0	1,636.4	384.9	204.6	61.1	51.8	2,258.3	586.4	1,792.6	473.7	4,050.9	750.8	14,306.0	1,812.4
Redwood	10.5	8.4	551.5	293.0	1,517.5	442.7	5,084.8	783.4	4,300.2	1,107.3	9,384.9	1,341.6	11,464.3	1,442.7
Western juniper	2,422.5	509.4	846.4	260.1	25.8	41.3	93.4	57.3	740.2	254.1	833.6	260.5	4,128.3	629.8
Western white pine	2,802.0	789.4	40.6	31.9	--	--	--	--	--	--	--	--	2,842.6	790.0
Other western softwoods	4,967.3	1,329.8	1,277.6	453.5	266.0	183.1	1,162.1	693.3	850.6	495.5	2,012.7	852.1	8,523.7	1,653.4
Total	207,016.8	7,103.5	28,240.5	2,581.9	6,841.7	1,215.0	40,142.5	2,799.1	24,403.5	2,427.3	64,546.0	3,541.7	306,645.0	8,361.2
Hardwoods:														
Alder / maple	565.6	296.6	1,603.5	779.9	121.5	93.8	1,608.9	560.6	893.9	379.5	2,502.8	676.1	4,793.3	1,077.6
Aspen / birch	833.0	417.4	--	--	5.8	6.4	--	--	--	--	--	--	838.8	417.4
Elm / ash / cottonwood	103.1	106.8	--	--	45.4	61.9	--	--	196.9	142.5	196.9	142.5	345.4	188.5
Tanoak / laurel	12,312.6	2,532.3	4,168.5	2,104.6	4,162.6	1,359.0	12,526.1	3,108.2	8,403.4	1,110.1	20,929.5	3,281.6	41,573.2	4,837.0
Western oak	48,692.8	5,388.6	7,225.3	1,488.2	3,362.6	736.8	8,139.3	1,029.0	27,132.8	2,010.3	35,272.1	2,228.6	94,552.8	6,051.6
Woodland hardwoods	3,739.3	1,177.0	791.1	377.0	282.2	154.5	251.3	241.8	57.6	47.6	308.9	245.8	5,121.5	1,269.6
Other hardwoods	4,636.2	1,419.1	162.0	134.7	370.8	170.5	981.0	439.0	1,672.8	451.8	2,653.8	627.1	7,822.9	1,566.6
Total	70,882.6	6,186.6	13,950.3	2,651.0	8,350.8	1,553.1	23,506.7	3,339.1	38,357.5	2,330.6	61,864.1	4,002.9	155,047.9	7,957.0
Nonstocked														
31,025.8	5,694.1	1,551.8	672.9	539.8	603.5	3,201.0	1,681.8	518.1	282.2	3,719.1	1,704.9	36,836.5	6,012.0	
All forest types	308,925.2	10,100.6	43,742.6	3,584.3	15,732.4	1,848.7	66,850.2	4,507.6	63,279.0	3,300.3	130,129.2	5,266.5	498,529.4	11,944.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = fewer than 50 trees were estimated.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 22—Average number of live trees^a per acre on forest land, by forest type group and ownership group, California, 2006-2015

Forest type group	Ownership Group													
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All Private		All owners	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Number of trees per acre</i>														
Softwoods:														
California mixed conifer	365.03	10.98	280.18	28.19	338.47	65.49	415.66	21.71	501.63	46.86	436.90	20.07	378.80	9.27
Douglas-fir	479.40	61.47	325.68	82.45	551.09	97.02	756.59	73.33	414.87	37.02	588.75	44.80	539.76	33.57
Fir / spruce / mtn. hemlock	310.25	21.35	232.68	53.65	436.00	157.83	318.69	49.25	183.20	43.07	286.54	39.94	300.96	18.07
Lodgepole pine	354.12	38.22	259.62	37.95	297.76	156.41	610.08	218.92	601.52	222.41	605.51	156.80	348.03	30.30
Pinyon / juniper woodlands	130.81	14.78	109.96	14.29	103.36	17.33	190.50	51.20	119.47	63.09	137.20	49.33	122.83	10.52
Ponderosa pine	211.38	14.52	123.26	32.29	253.21	226.34	218.96	24.37	272.82	33.27	243.34	20.23	219.80	11.66
Redwood	104.52	10.61	365.58	41.42	357.92	62.99	629.62	57.96	417.26	42.81	552.01	41.34	507.88	35.29
Western juniper	92.57	10.92	105.98	16.63	200.27	45.40	131.32	33.77	74.72	12.47	85.47	12.41	95.05	7.47
Western white pine	211.12	31.14	93.12	93.75	--	--	--	--	--	--	--	--	202.22	30.46
Other western softwoods	299.80	45.21	278.47	89.67	360.91	285.70	427.20	120.96	559.39	342.79	491.62	179.55	320.52	43.73
Total	301.87	7.24	197.83	12.91	328.54	37.02	438.45	17.82	339.29	19.80	399.74	13.34	317.14	5.90
Hardwoods:														
Alder / maple	444.02	198.97	647.36	143.99	431.92	239.16	629.67	172.24	418.07	88.71	545.68	110.19	543.39	81.29
Aspen / birch	771.23	153.73	194.56	47.10	1,462.15	1,462.15	3,912.05	3,912.05	236.18	236.18	1,266.12	934.42	802.53	195.86
Elm / ash / cottonwood	342.68	342.68	--	--	101.42	25.53	3.75	3.75	112.59	40.75	101.98	36.78	137.64	42.05
Tanoak / laurel	815.34	76.50	590.52	142.48	541.79	106.27	824.18	55.06	727.94	45.34	770.21	35.27	754.34	31.06
Western oak	468.08	26.58	412.95	56.29	207.32	23.93	375.62	31.20	256.17	12.15	278.44	11.48	337.74	11.13
Woodland hardwoods	237.84	65.43	53.14	16.26	348.67	210.37	2,475.61	2,475.61	28.06	17.12	357.23	295.35	219.21	60.59
Other hardwoods	192.20	54.09	310.25	133.25	623.35	227.31	570.63	172.52	381.03	55.57	430.40	63.05	340.76	43.77
Total	489.35	23.28	403.80	44.75	317.74	35.66	550.45	31.30	319.71	12.68	375.11	12.30	406.42	10.54
Nonstocked														
	39.30	22.16	3.41	1.60	--	--	81.46	55.83	4.93	2.16	64.42	43.55	42.08	18.21
All forest types	332.60	7.64	250.14	15.72	319.21	25.98	463.58	15.65	323.03	10.52	379.98	8.78	342.42	5.29

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = fewer than 0.005 trees per acre were estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 23—Average number of dead trees^a per acre on forest land, by forest type group and ownership group, California, 2006-2015

Forest type group	Ownership Group													
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All Private		All owners	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Number of trees per acre</i>														
Softwoods:														
California mixed conifer	22.34	0.95	22.42	2.68	19.50	5.52	12.93	0.99	12.95	1.57	12.93	0.84	19.77	0.69
Douglas-fir	25.50	3.69	26.37	10.07	31.86	9.97	17.55	3.52	20.74	3.92	19.11	2.63	21.97	2.08
Fir / spruce / mtn. hemlock	30.02	2.02	29.39	5.55	49.62	25.65	17.87	3.62	12.79	5.00	16.67	3.03	28.52	1.73
Lodgepole pine	13.10	1.43	13.25	2.74	12.00	3.40	27.88	8.87	26.75	2.93	27.28	4.42	14.03	1.24
Pinyon / juniper woodlands	7.21	1.04	5.19	0.91	6.73	3.16	2.83	1.14	8.61	2.99	7.17	2.32	6.45	0.67
Ponderosa pine	6.67	1.04	5.08	2.35	2.32	1.50	5.17	1.19	4.96	1.18	5.07	0.84	6.04	0.71
Redwood	0.52	0.52	18.20	5.02	15.53	2.57	13.05	1.28	19.17	3.78	15.29	1.63	15.05	1.39
Western juniper	3.19	0.61	2.40	0.68	1.53	1.53	1.25	0.70	2.33	0.73	2.13	0.61	2.71	0.38
Western white pine	17.68	3.94	3.14	1.00	--	--	--	--	--	--	--	--	16.58	3.69
Other western softwoods	15.36	3.52	8.37	2.42	17.94	2.25	30.98	13.11	23.86	9.65	27.51	8.27	15.11	2.45
Total	18.31	0.59	12.83	1.06	17.53	2.78	12.62	0.76	11.99	1.03	12.37	0.61	16.04	0.41
Hardwoods:														
Alder / maple	15.33	6.47	40.28	11.62	17.33	10.64	19.71	4.53	16.64	5.13	18.49	3.43	21.88	3.54
Aspen / birch	14.60	6.09	--	--	5.35	5.35	--	--	--	--	--	--	10.45	4.63
Elm / ash / cottonwood	21.99	21.99	--	--	5.55	5.55	--	--	13.19	5.61	11.90	5.26	11.53	3.92
Tanoak / laurel	28.79	4.87	58.00	23.06	26.60	6.89	23.89	5.33	12.56	1.18	17.54	2.47	22.48	2.29
Western oak	19.44	1.95	11.36	2.10	7.48	1.43	8.20	0.83	6.27	0.42	6.63	0.38	10.61	0.63
Woodland hardwoods	26.81	6.64	12.19	4.71	13.84	2.61	46.56	46.56	1.66	1.42	7.70	5.63	19.33	3.95
Other hardwoods	21.26	5.48	3.64	2.66	8.28	2.30	16.01	5.74	9.61	1.96	11.28	2.10	14.42	2.48
Total	20.92	1.64	16.10	2.79	12.15	2.00	14.07	1.83	7.26	0.39	8.89	0.54	13.03	0.62
Nonstocked														
	49.58	7.60	21.30	6.75	65.28	65.28	18.77	9.05	10.61	5.15	16.95	7.17	39.77	5.57
All forest types														
	20.16	0.65	13.93	1.07	14.48	1.61	13.31	0.84	8.58	0.41	10.50	0.42	15.61	0.37

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = fewer than 0.005 trees per acre were estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 24—Number of growing stock trees^a on timberland, by species group and diameter class, California, 2006-2015

Species group	Diameter class (inches)																	
	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			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand trees</i>																		
Softwoods:																		
Douglas-fir	115,867.3	4,912.4	83,676.8	3,589.8	60,520.6	2,676.6	45,051.6	2,046.7	33,867.5	1,632.6	24,504.5	1,277.4	19,926.9	1,123.0	14,970.5	944.3		
Incense-cedar	59,598.7	3,648.7	37,414.3	2,283.9	26,750.2	1,735.9	18,190.6	1,318.0	10,766.0	865.4	9,339.8	771.0	6,731.7	614.4	5,292.7	518.0		
Lodgepole pine	16,110.3	3,609.3	9,439.1	1,636.7	7,685.6	1,210.1	5,190.0	787.0	3,998.0	591.8	2,292.3	393.0	2,033.2	364.9	1,944.6	349.2		
Ponderosa and Jeffrey pines	94,883.0	4,766.2	75,392.1	4,015.7	57,446.2	3,122.6	46,184.6	2,345.3	32,574.3	1,727.1	24,915.0	1,359.3	18,757.0	1,117.9	13,574.6	889.0		
Redwood	30,347.5	3,143.8	22,721.9	2,228.3	16,964.6	1,801.0	14,648.2	1,613.9	11,013.5	1,115.9	8,901.1	904.7	6,783.1	712.0	5,904.3	749.3		
Sitka spruce	325.8	170.9	476.5	240.2	281.5	141.2	229.6	196.8	316.6	173.9	286.1	198.4	286.1	198.4	115.0	86.6		
Sugar pine	9,921.8	1,059.6	7,485.7	758.1	5,714.3	594.6	4,577.3	473.9	3,125.4	375.8	2,636.7	341.6	2,399.8	328.2	1,813.1	270.3		
True fir	125,100.5	5,569.1	86,708.8	3,958.9	69,843.6	3,265.5	49,725.2	2,398.0	39,000.0	1,984.8	30,225.8	1,632.0	22,868.1	1,369.4	17,693.4	1,077.3		
Western hemlock	1,207.7	561.4	614.0	223.3	469.1	178.3	369.6	157.6	395.0	189.5	171.5	100.5	207.2	105.1	82.6	56.7		
Western juniper	3,728.1	548.4	2,114.9	366.3	2,418.8	370.0	1,376.5	280.7	1,182.7	252.3	535.0	162.8	679.6	178.8	376.0	117.7		
Western white pine	1,428.8	315.4	1,038.5	251.6	775.0	210.9	431.0	145.1	503.0	156.5	237.6	94.7	527.8	149.0	435.6	137.0		
Woodland softwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Other western softwoods	7,188.0	1,374.2	5,675.5	1,022.1	4,128.8	684.4	2,526.8	473.3	1,991.4	403.4	1,665.1	397.2	1,552.3	359.9	1,198.8	337.8		
Total	465,707.6	11,046.1	332,758.1	7,631.1	252,998.3	5,880.9	188,500.9	4,460.4	138,733.4	3,372.0	105,710.5	2,740.3	82,752.9	2,354.6	63,401.1	1,958.2		
Hardwoods:																		
Cottonwood and aspen	2,444.7	1,187.8	694.5	315.6	376.5	174.9	167.5	80.9	157.4	95.9	130.3	90.9	35.2	35.9	98.6	62.0		
Oak	117,734.5	6,638.9	75,488.7	4,212.1	44,339.8	2,439.6	27,142.3	1,612.6	15,114.8	1,069.2	10,163.0	760.3	6,601.4	610.8	4,367.0	445.7		
Red alder	4,745.6	974.2	4,223.3	738.0	3,420.0	640.1	2,889.9	607.0	1,184.2	330.5	675.1	213.5	462.3	184.7	286.8	104.7		
Tanoak	99,448.4	6,766.8	59,534.2	4,006.2	37,489.4	2,718.9	23,976.8	1,832.6	13,181.2	1,112.2	7,754.5	799.3	4,474.2	566.2	4,141.7	500.6		
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Other western hardwoods	45,734.2	3,063.6	28,524.1	2,068.1	18,088.2	1,344.0	12,773.7	1,025.0	8,534.7	738.1	4,816.1	506.6	3,913.2	443.6	1,898.6	291.4		
Total	270,107.4	10,305.5	168,464.9	6,367.2	103,714.0	4,022.4	66,950.2	2,856.5	38,172.3	1,840.3	23,539.0	1,252.2	15,486.4	990.0	10,792.6	766.8		
All species groups	735,815.0	15,160.5	501,223.0	9,838.4	356,712.2	7,011.5	255,451.1	5,188.6	176,905.7	3,793.3	129,249.4	2,952.7	98,239.3	2,533.6	74,193.7	2,083.1		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = fewer than 50 trees were estimated.

^a Includes live growing stock trees of commercial species that are ≥ 5 inches in diameter at breast height; excludes trees that are classified as rough or rotten cull.

Table 24—Number of growing stock trees^a on timberland, by species group and diameter class, California, 2006-2015 (Continued)

Species group	Diameter class (inches)																	
	21.0-22.9		23.0-24.9		25.0-26.9		27.0-28.9		29.0-30.9		31.0-32.9		33.0-34.9		35.0-36.9			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand trees</i>																		
Softwoods:																		
Douglas-fir	9,557.1	695.7	7,439.5	498.0	6,329.5	301.2	4,739.4	246.7	4,117.1	228.9	3,206.2	183.6	2,596.8	169.9	2,086.1	153.9		
Incense-cedar	3,536.8	449.7	2,569.6	278.1	2,433.5	186.6	1,573.8	128.7	1,251.7	115.6	981.8	97.6	885.7	88.9	582.9	68.7		
Lodgepole pine	1,003.4	229.1	846.6	184.8	532.9	103.8	291.3	59.9	228.3	58.9	158.3	46.8	69.5	22.4	60.5	19.4		
Ponderosa and Jeffrey pines	10,548.3	730.0	6,832.8	473.7	5,023.7	279.2	4,090.2	229.8	3,044.7	183.9	2,311.5	160.4	1,678.6	132.8	1,215.0	113.0		
Redwood	4,751.7	598.1	3,818.1	448.9	3,410.5	365.9	2,761.0	270.8	2,046.7	227.9	1,638.1	194.7	1,263.8	158.7	956.5	126.1		
Sitka spruce	343.9	226.0	49.9	26.4	71.2	31.9	42.0	21.3	56.9	25.3	22.7	12.1	28.2	16.4	19.3	19.6		
Sugar pine	1,564.5	247.5	1,505.0	211.1	1,338.3	114.7	1,316.2	117.3	1,082.0	101.6	676.2	73.4	793.4	80.1	558.3	69.6		
True fir	12,455.5	860.2	9,295.0	624.1	6,765.0	371.4	5,823.9	329.7	4,109.9	263.6	3,474.0	234.5	2,163.5	164.0	1,792.2	145.9		
Western hemlock	137.1	93.8	6.3	6.4	34.7	14.9	20.4	14.8	12.6	8.9	--	--	--	--	--	--		
Western juniper	199.5	100.5	180.7	79.8	112.0	28.0	78.5	29.9	37.7	17.4	50.7	19.6	13.4	9.3	30.5	16.4		
Western white pine	389.1	129.8	183.1	54.3	187.2	45.6	129.0	38.5	164.6	37.9	107.6	33.3	73.7	24.6	64.6	23.1		
Woodland softwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Other western softwoods	428.1	128.4	357.2	102.1	359.9	91.5	299.7	76.1	160.1	49.2	128.8	48.4	104.6	34.2	111.7	34.6		
Total	44,915.1	1,589.7	33,083.8	1,108.0	26,598.4	714.6	21,165.5	573.7	16,312.3	491.8	12,755.9	416.0	9,671.1	341.9	7,477.7	297.7		
Hardwoods:																		
Cottonwood and aspen	35.2	35.9	28.3	20.4	22.2	15.7	37.5	17.9	15.7	10.1	27.8	16.0	6.2	6.3	6.2	6.3		
Oak	3,011.1	367.5	2,018.4	242.3	1,241.3	106.4	804.2	80.9	485.4	61.2	433.5	57.8	274.9	53.8	108.2	26.1		
Red alder	86.4	58.0	132.9	70.6	24.0	12.5	7.0	6.7	27.4	13.2	14.8	9.7	--	--	--	--		
Tanoak	2,623.7	399.2	1,712.8	283.9	805.7	105.6	558.7	82.0	298.8	54.4	147.0	32.7	103.9	30.7	74.8	25.4		
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Other western hardwoods	1,469.8	254.4	960.8	169.0	548.5	70.5	378.0	53.6	266.4	45.6	193.2	47.3	101.9	29.0	112.8	34.4		
Total	7,226.2	613.6	4,853.3	422.2	2,641.6	173.5	1,785.3	132.6	1,093.7	99.9	816.2	83.8	486.9	69.6	302.0	53.5		
All species groups	52,141.3	1,698.5	37,937.1	1,179.6	29,240.1	734.1	22,950.8	591.0	17,405.9	501.7	13,572.1	426.0	10,158.0	350.9	7,779.6	303.7		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = fewer than 50 trees were estimated.

^a Includes live growing stock trees of commercial species that are ≥ 5 inches in diameter at breast height; excludes trees that are classified as rough or rotten cull.

Table 24—Number of growing stock trees^a on timberland, by species group and diameter class, California 2006–2015 (Continued)

Species group	Diameter class (inches)																	
	37.0-38.9		39.0-40.9		41.0-42.9		43.0-44.9		45.0-46.9		47.0-48.9		49.0 +		All classes			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand trees</i>																		
Softwoods:																		
Douglas-fir	1,869.2	138.5	1,643.9	129.3	1,020.2	102.5	1,073.1	103.5	880.7	90.4	622.4	73.4	2,591.8	234.7	448,158.9	14,330.6		
Incense-cedar	542.8	73.9	337.8	53.2	320.1	47.4	244.3	40.2	153.9	32.9	110.9	29.6	484.8	75.2	190,094.6	9,499.1		
Lodgepole pine	47.5	19.1	32.6	14.2	9.4	7.9	12.7	16.2	25.7	12.6	--	--	--	--	52,011.7	7,257.6		
Ponderosa and Jeffrey pines	733.6	78.3	810.6	78.2	495.1	61.1	285.9	44.3	237.3	42.5	114.1	26.8	386.4	63.3	401,534.7	14,565.2		
Redwood	828.4	120.6	590.0	93.2	372.7	69.0	395.0	75.1	256.1	52.6	151.2	36.0	753.7	139.4	141,277.8	10,782.1		
Sitka spruce	7.4	6.9	6.4	6.5	22.2	12.0	20.8	11.6	8.3	7.3	--	--	16.7	14.6	3,033.0	1,375.1		
Sugar pine	377.2	50.7	274.6	44.6	258.6	42.4	161.2	33.3	177.8	33.0	149.0	32.3	494.6	68.6	48,401.2	2,900.2		
True fir	1,433.0	125.5	1,156.7	127.2	790.9	94.4	558.1	69.1	457.5	68.7	363.1	53.1	739.4	109.6	492,543.2	18,416.9		
Western hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3,727.8	1,202.4		
Western juniper	35.9	21.0	12.1	12.2	5.8	6.0	5.7	5.9	--	--	--	--	36.9	23.1	13,210.7	1,572.8		
Western white pine	95.1	28.0	43.3	18.5	29.5	13.4	41.2	15.8	24.3	12.3	14.1	9.6	58.0	20.8	6,981.7	1,036.2		
Woodland softwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Other western softwoods	67.2	25.7	34.3	17.2	23.0	15.4	11.3	11.7	16.4	11.4	--	--	29.2	13.5	28,058.2	3,855.0		
Total	6,037.4	261.8	4,942.4	228.8	3,347.3	183.1	2,809.2	165.3	2,238.1	143.4	1,524.9	111.3	5,591.6	342.3	1,829,033.3	30,465.6		
Hardwoods:																		
Cottonwood and aspen	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4,283.7	1,694.5		
Oak	118.6	29.7	63.9	20.1	55.1	23.6	26.3	13.0	30.8	14.1	15.0	9.9	34.6	14.9	309,672.8	13,969.0		
Red alder	--	--	--	--	--	--	--	--	--	--	--	--	--	--	18,179.6	2,866.8		
Tanoak	31.6	16.8	13.3	9.3	35.9	15.2	--	--	8.0	7.2	15.4	10.0	16.0	10.2	256,446.0	15,518.3		
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Other western hardwoods	60.5	19.8	35.2	15.1	41.2	18.7	31.5	14.2	21.1	11.6	14.3	9.6	42.2	16.5	128,560.3	7,120.7		
Total	210.7	39.4	112.4	26.7	132.3	35.0	57.9	19.2	59.9	22.1	44.8	17.0	92.8	24.4	717,142.4	23,193.2		
All species groups	6,248.1	266.0	5,054.8	230.5	3,479.5	186.9	2,867.1	167.0	2,298.0	145.1	1,569.6	112.9	5,684.4	343.3	2,546,175.7	37,641.3		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = fewer than 50 trees were estimated.

^a Includes live growing stock trees of commercial species that are ≥ 5 inches in diameter at breast height; excludes trees that are classified as rough or rotten cull.

Table 25—Net volume of live trees^a on forest land, by ownership and land status, California, 2006-2015

Ownership	Land Status															
	Unreserved forests								Reserved forests							
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest land			
Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	
<i>Million cubic feet</i>																
USDA Forest Service:																
National Forest	38,697.6	838.1	2,256.6	177.2	40,954.2	820.7	13,420.9	642.9	1,519.5	163.2	14,940.4	636.1	55,894.6	945.4		
Other federal government:																
Bureau of Land Management	1,099.0	219.5	514.6	70.4	1,613.6	228.9	245.3	94.9	139.5	31.9	384.8	100.1	1,998.4	247.4		
Departments of Defense or Energy	21.1	16.5	66.3	24.8	87.4	29.8	--	--	8.4	8.6	8.4	8.6	95.7	31.0		
National Park Service	--	--	--	--	--	--	6,317.7	581.4	637.5	124.5	6,955.2	588.9	6,955.2	588.9		
U.S. Fish and Wildlife Service	--	--	--	--	--	--	2.9	2.9	1.3	1.3	4.1	3.2	4.1	3.2		
Other federal	--	--	40.8	12.3	40.8	12.3	--	--	5.3	2.9	5.3	2.9	46.1	12.6		
Total	1,120.1	219.9	621.7	75.2	1,741.8	230.7	6,565.9	584.1	791.8	126.8	7,357.8	590.7	9,099.6	599.2		
State and local government:																
Local	243.6	100.6	175.7	47.9	419.3	112.2	353.5	143.1	261.0	60.4	614.5	152.1	1,033.8	188.5		
State	811.2	215.6	43.9	28.1	855.1	215.1	3,016.8	679.5	377.1	100.5	3,393.9	683.9	4,249.0	645.0		
Other public	--	--	2.7	2.5	2.7	2.5	34.1	38.0	1.8	1.9	35.9	38.0	38.6	38.1		
Total	1,054.8	236.9	222.3	55.6	1,277.1	241.7	3,404.4	693.4	639.9	115.7	4,044.3	698.3	5,321.4	666.1		
Corporate private																
	14,678.5	595.3	893.9	101.5	15,572.4	600.2	--	--	--	--	--	--	15,572.4	600.2		
Noncorporate private:																
Nongovernmental conservation or natural resource organizations	733.0	135.6	83.8	21.4	816.9	137.3	--	--	--	--	--	--	816.9	137.3		
Unincorporated partnerships, associations, clubs	665.3	167.7	102.0	33.8	767.3	171.4	--	--	--	--	--	--	767.3	171.4		
Native American	1,014.9	234.4	43.7	21.5	1,058.6	235.2	--	--	--	--	--	--	1,058.6	235.2		
Individual	10,700.4	619.1	4,105.6	194.9	14,806.0	632.6	--	--	--	--	--	--	14,806.0	632.6		
Total	13,113.7	667.7	4,335.1	198.1	17,448.8	677.9	--	--	--	--	--	--	17,448.8	677.9		
All private																
	27,792.2	730.7	5,229.0	216.5	33,021.2	722.3	--	--	--	--	--	--	33,021.2	722.3		
All owners																
	68,664.7	1,133.4	8,329.6	293.9	76,994.3	1,114.0	23,391.1	1,110.3	2,951.3	236.6	26,342.4	1,112.6	103,336.7	1,424.1		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 cubic feet was estimated.

^a Includes all live trees ≥ 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 26—Net volume of dead trees^a on forest land, by ownership and land status, California, 2006-2015

Ownership	Land Status													
	Unreserved forests						Reserved forests							
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest land	
Million cubic feet														
Total	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
USDA Forest Service:														
National Forest	4,923.4	220.6	261.4	28.0	5,184.8	220.5	2,227.4	155.3	260.5	34.5	2,487.9	155.7	7,672.7	265.4
Other federal government:														
Bureau of Land Management	86.7	30.8	44.3	8.6	131.0	31.5	23.6	15.7	13.4	4.5	36.9	16.3	168.0	35.4
Departments of Defense or Energy	--	--	2.7	1.4	2.7	1.4	--	--	--	--	--	--	2.7	1.4
National Park Service	--	--	--	--	--	--	1,077.2	129.9	81.2	19.5	1,158.4	131.0	1,158.4	131.0
U.S. Fish and Wildlife Service	--	--	--	--	--	--	1.4	1.5	--	--	1.4	1.5	1.4	1.5
Other federal	--	--	4.5	3.4	4.5	3.4	--	--	0.1	0.1	0.1	0.1	4.6	3.4
Total	86.7	30.8	51.5	9.3	138.2	31.7	1,102.2	130.6	94.7	19.9	1,196.8	131.7	1,335.0	132.7
State and local government:														
Local	14.9	6.9	6.8	3.6	21.8	7.8	19.5	12.2	9.1	4.1	28.6	12.9	50.4	15.0
State	35.9	16.2	2.9	1.8	38.8	16.3	165.1	39.5	27.5	10.4	192.6	40.6	231.4	40.8
Other public	--	--	--	--	--	--	0.5	0.6	0.2	0.2	0.7	0.6	0.7	0.6
Total	50.8	17.6	9.8	4.0	60.6	18.1	185.1	41.2	36.8	11.1	221.9	42.4	282.5	43.2
Corporate private	1,154.3	104.7	41.5	9.7	1,195.8	105.1	--	--	--	--	--	--	1,195.8	105.1
Noncorporate private:														
Nongovernmental conservation or natural resource organizations	43.5	13.4	4.3	2.0	47.8	13.5	--	--	--	--	--	--	47.8	13.5
Unincorporated partnerships, associations, or clubs	20.5	8.1	2.8	1.6	23.2	8.3	--	--	--	--	--	--	23.2	8.3
Native American	67.2	26.7	1.2	1.1	68.4	26.7	--	--	--	--	--	--	68.4	26.7
Individual	494.4	48.8	196.1	18.0	690.5	51.6	--	--	--	--	--	--	690.5	51.6
Total	625.5	57.2	204.4	18.2	829.9	59.6	--	--	--	--	--	--	829.9	59.6
All private	1,779.8	115.6	245.9	20.5	2,025.7	116.8	--	--	--	--	--	--	2,025.7	116.8
All owners	6,840.8	250.6	568.6	36.1	7,409.4	251.1	3,514.7	207.0	391.9	41.4	3,906.6	208.2	11,316.0	318.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 cubic feet was estimated.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 27—Net volume of live trees^a on forest land, by county and land status, California, 2006-2015

County	Land Status														
	Unreserved forests						Reserved forests						All forest land		
	Timberland		Other forest		Total		Productive		Other forest		Total				
Million cubic feet															
Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	
Alameda	32.2	29.9	112.5	36.1	144.7	49.3	18.6	16.5	57.5	24.7	76.1	28.3	220.8	56.7	
Alpine	365.3	95.2	43.4	18.8	408.7	97.7	673.0	157.2	58.6	23.3	731.6	159.0	1,140.3	186.6	
Amador	348.8	119.4	103.1	29.4	451.9	122.9	46.3	35.7	2.8	2.9	49.1	35.8	501.0	128.0	
Butte	1,888.2	282.2	204.0	58.7	2,092.2	287.8	--	--	27.7	17.7	27.7	17.7	2,119.9	288.3	
Calaveras	1,021.7	199.7	230.9	43.4	1,252.5	204.3	86.4	82.7	--	--	86.4	82.7	1,338.9	220.4	
Colusa	102.5	50.2	71.1	18.0	173.6	53.2	--	--	--	--	--	--	173.6	53.2	
Contra Costa	--	--	64.0	26.4	64.0	26.4	--	--	34.0	18.3	34.0	18.3	98.0	31.9	
Del Norte	1,152.2	211.4	39.8	28.9	1,192.0	213.0	2,533.8	680.6	39.2	15.1	2,573.0	680.8	3,765.0	712.2	
El Dorado	3,285.3	377.8	182.4	50.3	3,467.7	380.8	307.5	162.8	30.9	17.3	338.4	163.7	3,806.1	414.5	
Fresno	1,435.9	254.0	188.2	41.0	1,624.2	257.0	2,218.8	339.5	336.8	95.5	2,555.6	350.4	4,179.7	433.3	
Glenn	408.4	127.7	111.7	44.0	520.1	135.0	7.4	7.7	14.6	14.9	22.0	16.8	542.1	136.1	
Humboldt	7,816.3	589.1	277.9	89.4	8,094.2	595.2	2,294.9	578.1	--	--	2,294.9	578.1	10,389.1	826.8	
Imperial	--	--	4.4	2.2	4.4	2.2	--	--	3.3	4.5	3.3	4.5	7.7	5.1	
Inyo	29.7	23.6	127.3	29.2	157.0	37.6	29.2	16.4	164.1	33.5	193.2	37.9	350.3	53.2	
Kern	338.3	83.1	392.8	61.2	731.1	103.7	4.6	5.2	34.7	19.2	39.4	19.9	770.5	105.6	
Lake	568.6	124.7	103.0	32.1	671.7	128.6	94.5	54.9	24.8	14.9	119.3	56.8	791.0	140.6	
Lassen	1,989.2	200.1	146.7	23.4	2,135.9	201.4	166.8	77.0	--	--	166.8	77.0	2,302.7	215.6	
Los Angeles	27.2	20.7	65.1	21.9	92.3	30.1	39.4	20.8	11.0	5.9	50.4	21.5	142.7	37.0	
Madera	1,311.0	251.7	158.7	37.6	1,469.7	254.3	981.9	243.1	63.1	35.7	1,045.0	245.6	2,514.7	353.5	
Marin	180.7	122.2	43.1	21.3	223.8	124.1	192.6	120.9	30.2	12.7	222.9	121.6	446.7	173.7	
Mariposa	500.1	138.9	231.3	49.4	731.4	147.4	1,182.8	232.5	57.2	29.0	1,240.0	233.6	1,971.4	275.9	
Mendocino	5,976.8	500.0	748.4	118.9	6,725.2	513.2	272.6	104.4	161.7	92.3	434.3	138.4	7,159.5	530.6	
Merced	--	--	26.1	15.0	26.1	15.0	--	--	2.4	2.0	2.4	2.0	28.6	15.1	
Modoc	1,249.7	147.1	234.4	34.6	1,484.1	151.3	146.9	79.6	5.3	3.7	152.2	79.7	1,636.3	171.0	
Mono	435.4	89.9	363.6	70.8	799.0	113.4	50.5	28.2	244.5	67.1	295.0	72.8	1,094.0	134.1	
Monterey	195.2	125.1	314.4	56.6	509.7	137.3	376.4	236.4	121.6	49.8	498.1	244.6	1,007.8	280.5	
Napa	252.0	92.8	155.7	43.4	407.7	102.4	--	--	25.1	14.2	25.1	14.2	432.8	103.3	
Nevada	1,376.9	224.7	76.8	23.9	1,453.7	225.9	7.5	8.3	4.0	4.0	11.5	9.2	1,465.2	226.3	
Orange	--	--	0.5	0.5	0.5	0.5	--	--	0.6	0.9	0.6	0.9	1.2	1.0	
Placer	1,985.3	289.1	187.5	54.9	2,172.8	294.0	133.9	56.8	8.2	4.9	142.2	57.0	2,315.0	299.9	
Plumas	5,348.2	436.5	36.6	14.2	5,384.8	437.1	245.7	125.7	--	--	245.7	125.7	5,630.5	454.8	
Riverside	19.6	19.2	10.1	6.1	29.7	20.1	33.1	22.7	2.0	1.2	35.2	22.8	64.9	30.4	
Sacramento	--	--	11.7	10.7	11.7	10.7	--	--	--	--	--	--	11.7	10.7	
San Benito	--	--	122.9	38.8	122.9	38.8	--	--	--	--	--	--	122.9	38.8	
San Bernardino	203.8	67.8	109.5	29.6	313.3	74.5	84.7	45.7	44.5	21.2	129.2	50.4	442.5	90.0	
San Diego	2.6	2.4	57.4	18.5	59.9	18.6	--	--	11.9	8.1	11.9	8.1	71.8	20.3	
San Joaquin	--	--	29.7	28.5	29.7	28.5	--	--	--	--	--	--	29.7	28.5	
San Luis Obispo	--	--	301.3	53.4	301.3	53.4	--	--	72.6	43.7	72.6	43.7	373.9	69.3	
San Mateo	452.1	176.6	3.1	3.0	455.2	176.6	205.0	115.6	56.1	28.1	261.1	117.7	716.3	227.4	
Santa Barbara	18.8	16.9	105.8	30.6	124.6	35.8	3.1	2.4	22.3	18.5	25.4	18.7	150.1	40.4	
Santa Clara	34.7	25.8	261.0	52.2	295.7	58.2	118.6	84.6	127.5	36.5	246.1	92.2	541.8	109.3	
Santa Cruz	1,141.7	269.5	80.9	40.4	1,222.6	272.5	554.8	237.1	5.6	9.0	560.4	237.8	1,783.1	359.0	
Shasta	4,012.4	351.4	499.1	74.0	4,511.6	359.9	538.6	121.7	111.0	41.0	649.5	131.7	5,161.1	381.4	
Sierra	2,054.2	292.1	2.1	2.1	2,056.3	292.2	6.9	6.6	--	--	6.9	6.6	2,063.2	292.2	
Siskiyou	8,514.3	552.3	252.9	50.3	8,767.2	553.8	1,764.6	288.5	122.3	65.6	1,886.9	293.1	10,654.1	623.4	
Solano	--	--	26.2	18.2	26.2	18.2	--	--	3.4	3.1	3.4	3.1	29.6	18.6	
Sonoma	1,658.4	320.4	221.8	50.1	1,880.3	324.1	224.9	128.4	32.2	19.7	257.1	129.9	2,137.3	349.1	
Stanislaus	--	--	44.1	13.3	44.1	13.3	--	--	11.5	8.2	11.5	8.2	55.6	15.6	
Sutter	--	--	7.3	6.2	7.3	6.2	--	--	--	--	--	--	7.3	6.2	
Tehama	1,895.7	272.1	293.7	45.6	2,189.4	275.7	252.5	105.7	18.4	11.1	270.9	106.3	2,460.3	295.4	
Trinity	5,498.5	479.0	200.7	52.3	5,699.2	481.8	2,486.5	313.3	87.7	37.8	2,574.3	314.0	8,273.4	574.7	
Tulare	711.1	151.4	163.0	36.3	874.1	155.6	3,199.9	411.7	540.8	113.9	3,740.7	424.6	4,614.8	451.8	
Tuolumne	2,142.7	294.6	261.3	71.4	2,404.1	302.8	1,766.2	295.8	75.1	49.6	1,841.3	299.9	4,245.4	425.7	
Ventura	4.3	3.4	62.9	18.6	67.2	18.9	39.8	28.2	34.8	16.8	74.6	32.8	141.8	37.8	
Yolo	--	--	39.2	13.0	39.2	13.0	--	--	--	--	--	--	39.2	13.0	
Yuba	678.5	194.4	116.1	38.7	794.6	198.5	--	--	7.4	7.7	7.4	7.7	802.0	198.6	
All counties	68,664.7	1,133.4	8,329.6	293.9	76,994.3	1,114.0	23,391.1	1,110.3	2,951.3	236.6	26,342.4	1,112.6	103,336.7	1,424.1	

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- or not present = less than 50,000 cubic feet was estimated.

^aIncludes all live trees ≥ 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 28—Net volume of dead trees^a on forest land, by county and land status, California, 2006-2015

County	Land Status														
	Unreserved forests						Reserved forests								
	Timberland		Other forest		Total		Productive		Other forest		Total				
Million cubic feet															
Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Alameda	--	--		8.8	4.3	8.8	4.3	0.1	0.1	0.7	0.6	0.8	0.6	9.6	4.3
Alpine	68.2	19.4		1.5	0.9	69.7	19.5	79.7	21.0	7.1	3.1	86.8	21.2	156.5	28.8
Amador	61.8	28.8		3.5	1.8	65.3	28.8	8.7	5.8	--	--	8.7	5.8	74.0	29.4
Butte	121.7	32.3		11.5	4.6	133.2	32.7	--	--	1.3	1.1	1.3	1.1	134.4	32.7
Calaveras	82.5	33.8		15.9	4.0	98.4	34.0	2.3	2.2	--	--	2.3	2.2	100.7	34.1
Colusa	30.9	23.5		4.0	1.7	34.9	23.6	--	--	--	--	--	--	34.9	23.6
Contra Costa	--	--		0.3	0.2	0.3	0.2	--	--	--	--	--	--	0.4	0.2
Del Norte	132.6	37.1		6.1	4.3	138.7	37.3	177.3	38.0	7.5	3.2	184.9	38.1	323.6	53.2
El Dorado	362.6	57.2		8.3	3.3	370.9	57.3	63.3	36.8	5.8	4.0	69.1	37.0	440.0	68.2
Fresno	151.3	36.6		28.9	11.0	180.2	38.2	257.2	50.7	41.1	13.5	298.3	52.2	478.5	64.6
Glenn	54.5	24.7		4.5	2.6	59.1	24.8	3.7	3.9	--	--	3.7	3.9	62.8	25.1
Humboldt	745.7	106.4		6.5	2.9	752.2	106.4	298.5	90.0	--	--	298.5	90.0	1,050.7	139.3
Imperial	--	--		2.1	1.5	2.1	1.5	--	--	0.1	0.2	0.1	0.2	2.2	1.5
Inyo	8.8	6.0		20.5	7.0	29.3	9.2	2.5	2.5	22.4	8.5	25.0	8.9	54.3	12.8
Kern	60.8	26.2		33.4	10.5	94.2	28.2	--	--	6.2	3.4	6.2	3.4	100.4	28.4
Lake	62.6	22.5		10.6	5.2	73.1	23.1	1.8	1.6	2.0	1.2	3.8	2.0	76.9	23.1
Lassen	162.3	28.4		17.0	9.2	179.3	29.8	34.0	20.1	--	--	34.0	20.1	213.3	36.0
Los Angeles	6.4	5.1		12.2	5.4	18.6	7.5	7.5	7.3	4.4	2.7	11.9	7.8	30.5	10.8
Madera	161.2	53.9		8.0	3.1	169.2	54.0	187.5	59.1	10.2	6.4	197.7	59.4	366.9	80.3
Marin	8.0	6.5		3.5	2.8	11.6	7.1	13.2	9.8	0.3	0.2	13.5	9.8	25.1	12.1
Mariposa	37.4	14.7		16.9	5.8	54.3	15.8	269.8	63.8	12.6	7.5	282.4	64.2	336.7	66.1
Mendocino	336.4	40.8		20.6	5.9	357.0	41.2	32.5	23.1	5.4	2.6	37.9	23.2	394.9	47.3
Merced	--	--		0.7	0.7	0.7	0.7	--	--	--	--	--	--	0.7	0.7
Modoc	112.0	25.0		10.5	2.9	122.4	25.1	38.2	22.6	0.2	0.2	38.4	22.6	160.8	33.8
Mono	26.7	10.2		50.8	12.9	77.5	16.4	6.0	5.8	20.8	6.2	26.8	8.4	104.2	18.3
Monterey	16.4	10.0		13.9	4.4	30.4	11.0	0.4	0.3	44.4	19.9	44.8	19.9	75.2	22.8
Napa	15.2	7.4		4.6	2.3	19.8	7.8	--	--	3.0	2.1	3.0	2.1	22.8	8.1
Nevada	124.0	31.8		3.6	2.0	127.5	31.9	--	--	0.2	0.2	0.2	0.2	127.8	31.9
Orange	--	--		--	--	--	--	--	--	--	--	--	--	--	--
Placer	230.0	43.5		12.1	6.2	242.2	43.9	18.5	12.0	0.9	0.8	19.4	12.0	261.6	45.5
Plumas	820.5	112.5		6.0	3.0	826.4	112.5	23.4	13.1	--	--	23.4	13.1	849.9	113.3
Riverside	--	--		2.4	1.3	2.4	1.3	3.7	3.3	0.2	0.2	3.9	3.3	6.3	3.6
Sacramento	--	--		--	--	--	--	--	--	--	--	--	--	--	--
San Benito	--	--		3.6	1.9	3.6	1.9	--	--	--	--	--	--	3.6	1.9
San Bernardino	71.2	29.3		14.5	4.6	85.7	29.6	35.7	23.4	16.7	9.1	52.5	25.1	138.1	38.9
San Diego	9.3	7.8		8.6	4.1	17.9	8.8	18.4	20.6	13.9	9.2	32.3	22.5	50.2	24.2
San Joaquin	--	--		2.5	2.5	2.5	2.5	--	--	--	--	--	--	2.5	2.5
San Luis Obispo	--	--		13.1	4.3	13.1	4.3	--	--	--	--	--	--	13.1	4.3
San Mateo	17.4	8.3		--	--	17.4	8.3	17.7	12.2	3.3	3.5	21.0	12.6	38.4	15.1
Santa Barbara	1.6	1.2		11.4	4.0	12.9	4.2	14.9	12.0	6.7	5.6	21.7	13.3	34.6	13.9
Santa Clara	1.0	0.9		18.0	8.4	19.0	8.4	1.7	1.3	7.4	4.1	9.1	4.3	28.2	9.4
Santa Cruz	29.4	9.6		3.4	3.2	32.8	10.1	6.3	3.5	--	--	6.4	3.5	39.2	10.6
Shasta	313.1	45.3		26.9	7.1	340.1	45.8	85.4	29.9	11.0	6.4	96.3	30.5	436.4	55.0
Sierra	218.9	41.4		3.7	3.8	222.6	41.5	--	--	--	--	--	--	222.6	41.5
Siskiyou	954.2	128.6		24.9	7.2	979.0	128.7	385.9	90.9	16.0	8.5	401.9	91.1	1,380.9	157.6
Solano	--	--		--	--	--	--	--	--	--	--	--	--	--	--
Sonoma	67.1	17.1		3.4	1.5	70.5	17.2	27.5	17.8	0.3	0.3	27.8	17.8	98.3	24.7
Stanislaus	--	--		0.7	0.4	0.7	0.4	--	--	0.4	0.3	0.4	0.3	1.2	0.5
Sutter	--	--		--	--	--	--	--	--	--	--	--	--	--	--
Tehama	220.7	46.0		16.7	7.6	237.4	46.6	50.5	21.8	4.3	3.2	54.8	22.1	292.2	51.6
Trinity	519.7	67.8		22.2	7.3	541.9	68.2	494.7	85.7	3.6	2.2	498.3	85.8	1,040.1	109.6
Tulare	136.2	42.6		11.7	4.2	148.0	42.8	454.6	70.6	87.3	21.3	541.9	73.5	689.8	85.0
Tuolumne	241.0	58.2		15.0	4.5	256.1	58.4	358.9	86.2	14.4	10.0	373.3	86.7	629.4	104.5
Ventura	0.4	0.4		15.8	7.5	16.2	7.5	32.6	25.3	7.5	5.7	40.1	25.9	56.3	27.0
Yolo	--	--		2.1	2.0	2.1	2.0	--	--	--	--	--	--	2.1	2.0
Yuba	38.8	17.8		1.3	0.6	40.1	17.8	--	--	2.1	2.4	2.1	2.4	42.3	18.0
All counties	6,840.8	250.6		568.6	36.1	7,409.4	251.1	3,514.7	207.0	391.9	41.4	3,906.6	208.2	11,316.0	318.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — or not present = less than 50,000 cubic feet was estimated.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 29—Net volume of live trees^a on forest land, by county and broad species group, California, 2006–2015

County	Broad Species Group					
	Softwood species		Hardwood species		All species groups	
	Total	SE	Total	SE	Total	SE
Million cubic feet						
Alameda	32.3	29.9	188.4	45.7	220.8	56.7
Alpine	1,132.4	186.5	7.9	7.7	1,140.3	186.6
Amador	368.7	121.5	132.3	33.4	501.0	128.0
Butte	1,491.5	235.8	628.4	104.4	2,119.9	288.3
Calaveras	1,021.4	204.8	317.5	52.9	1,338.9	220.4
Colusa	78.6	31.1	95.0	28.5	173.6	53.2
Contra Costa	2.5	2.2	95.6	31.8	98.0	31.9
Del Norte	3,130.2	683.3	634.8	110.2	3,765.0	712.2
El Dorado	3,444.5	398.6	361.5	58.7	3,806.1	414.5
Fresno	3,959.9	430.0	219.8	34.1	4,179.7	433.3
Glenn	390.6	120.9	151.5	46.7	542.1	136.1
Humboldt	7,738.1	735.4	2,650.9	224.5	10,389.1	826.8
Imperial	--	--	7.7	5.1	7.7	5.1
Inyo	332.6	51.8	17.7	6.2	350.3	53.2
Kern	442.3	79.7	328.2	55.5	770.5	105.6
Lake	531.6	112.1	259.4	46.3	791.0	140.6
Lassen	2,278.9	214.8	23.8	6.8	2,302.7	215.6
Los Angeles	73.5	26.4	69.2	22.8	142.7	37.0
Madera	2,308.3	346.1	206.5	40.1	2,514.7	353.5
Marin	304.2	151.8	142.5	45.6	446.7	173.7
Mariposa	1,630.4	260.3	341.0	59.3	1,971.4	275.9
Mendocino	4,674.7	420.4	2,484.8	201.6	7,159.5	530.6
Merced	--	--	28.6	15.1	28.6	15.1
Modoc	1,616.5	169.3	19.8	7.2	1,636.3	171.0
Mono	1,050.7	131.6	43.3	15.5	1,094.0	134.1
Monterey	604.5	251.7	403.2	65.5	1,007.8	280.5
Napa	226.5	73.2	206.3	45.7	432.8	103.3
Nevada	1,260.9	209.6	204.3	42.7	1,465.2	226.3
Orange	--	--	1.2	1.0	1.2	1.0
Placer	1,963.5	280.1	351.5	65.5	2,315.0	299.9
Plumas	5,396.1	440.1	234.4	54.3	5,630.5	454.8
Riverside	55.9	29.1	8.9	3.8	64.9	30.4
Sacramento	--	--	11.7	10.7	11.7	10.7
San Benito	30.4	11.0	92.4	30.2	122.9	38.8
San Bernardino	359.7	80.6	82.7	24.2	442.5	90.0
San Diego	5.6	3.1	66.2	20.0	71.8	20.3
San Joaquin	0.1	0.1	29.6	28.5	29.7	28.5
San Luis Obispo	16.2	6.1	357.7	68.0	373.9	69.3
San Mateo	531.9	199.4	184.3	55.0	716.3	227.4
Santa Barbara	20.3	10.7	129.8	36.7	150.1	40.4
Santa Clara	130.4	67.1	411.4	66.1	541.8	109.3
Santa Cruz	1,344.4	304.8	438.6	104.2	1,783.1	359.0
Shasta	4,155.5	339.4	1,005.6	101.0	5,161.1	381.4
Sierra	1,972.2	283.0	91.0	30.2	2,063.2	292.2
Siskiyou	9,712.4	586.9	941.7	96.3	10,654.1	623.4
Solano	--	--	29.6	18.6	29.6	18.6
Sonoma	1,414.1	291.8	723.2	93.3	2,137.3	349.1
Stanislaus	13.9	6.1	41.7	12.5	55.6	15.6
Sutter	--	--	7.3	6.2	7.3	6.2
Tehama	2,010.1	275.0	450.2	59.8	2,460.3	295.4
Trinity	7,067.9	522.0	1,205.5	107.6	8,273.4	574.7
Tulare	4,266.6	440.4	348.2	67.0	4,614.8	451.8
Tuolumne	3,880.4	409.9	365.0	60.5	4,245.4	425.7
Ventura	96.1	31.8	45.7	18.1	141.8	37.8
Yolo	7.9	4.0	31.3	10.7	39.2	13.0
Yuba	614.2	179.6	187.8	44.3	802.0	198.6
All counties	85,192.5	1,394.6	18,144.3	419.0	103,336.7	1,424.1

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — or not present = less than 50,000 cubic feet was estimated.

^a Includes all live trees ≥ 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 30—Net volume of live trees^a on forest land, by forest type group and stand size class, California, 2006-2015

Forest type group	Stand size class								All classes	
	Large-diameter stands		Medium-diameter stands		Small-diameter stands					
	Total	SE	Total	SE	Total	SE	Total	SE		
<i>Million cubic feet</i>										
Softwoods:										
California mixed conifer	38,865.1	1,048.3	153.0	39.0	124.1	22.9	39,142.3	1,047.4		
Douglas-fir	6,764.2	589.9	120.9	37.3	51.9	25.1	6,936.9	592.2		
Fir / spruce / mtn.hemlock	11,729.0	754.7	40.4	16.7	47.4	17.5	11,816.8	755.3		
Lodgepole pine	3,682.2	331.0	47.0	26.3	22.3	9.3	3,751.6	332.0		
Pinyon / juniper woodlands	796.1	68.8	16.4	6.7	5.1	2.6	817.7	68.9		
Ponderosa pine	5,547.0	349.5	98.4	20.5	30.1	9.6	5,675.4	349.7		
Redwood	8,537.8	1,027.7	24.3	13.2	14.6	7.4	8,576.7	1,027.7		
Western juniper	784.9	78.1	25.7	7.1	18.4	6.5	829.1	78.7		
Western white pine	402.9	98.8	--	--	19.6	9.5	422.5	99.3		
Other western softwoods	1,023.5	194.1	48.9	17.9	8.3	2.9	1,080.7	195.0		
Total	78,132.9	1,512.6	575.1	69.7	341.8	42.7	79,049.7	1,508.6		
Hardwoods:										
Alder / maple	781.3	162.2	104.1	47.8	11.5	7.4	896.9	169.2		
Aspen / birch	52.5	31.5	25.7	14.0	9.5	6.4	87.7	35.1		
Elm / ash / cottonwood	74.1	36.1	--	--	--	--	74.1	36.1		
Tanoak / laurel	7,335.8	543.6	898.6	134.9	121.4	32.9	8,355.8	557.1		
Western oak	9,549.8	421.9	3,502.3	199.8	355.3	41.8	13,407.5	454.0		
Woodland hardwoods	118.9	23.6	11.9	7.7	0.2	0.1	131.1	24.8		
Other hardwoods	1,017.5	209.3	168.8	50.7	37.6	11.0	1,224.0	215.1		
Total	18,930.0	706.5	4,711.5	248.5	535.4	54.9	24,177.0	725.8		
Nonstocked	--	--	--	--	--	--	110.0	22.2		
All forest types	97,062.9	1,470.2	5,286.6	257.0	877.2	69.1	103,336.7	1,424.1		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 cubic feet was estimated.

^a Includes all live trees \geq 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 31—Net volume of dead trees^a on forest land, by forest type group and stand size class, California, 2006-2015

Forest type group	Stand size class							
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		All classes	
	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>								
Softwoods:								
California mixed conifer	4,143.7	184.7	19.7	6.6	71.0	26.1	4,234.4	186.3
Douglas-fir	492.2	65.6	3.8	2.0	39.6	23.9	535.5	70.0
Fir / spruce / mtn.hemlock	1,669.8	139.7	17.9	12.7	142.6	72.7	1,830.3	157.4
Lodgepole pine	502.9	59.4	1.4	1.0	5.3	3.0	509.6	59.5
Pinyon / juniper woodlands	69.8	9.6	1.7	0.7	8.5	5.3	80.0	10.9
Ponderosa pine	234.9	31.8	3.8	1.7	7.5	3.9	246.2	32.1
Redwood	567.2	109.6	8.5	5.1	4.3	3.3	580.1	110.4
Western juniper	62.6	12.9	2.2	1.1	0.1	0.1	64.9	12.9
Western white pine	73.5	20.4	--	--	10.1	4.9	83.5	21.0
Other western softwoods	151.6	38.0	15.4	9.9	3.0	2.5	170.0	39.3
Total	7,968.2	256.1	74.4	18.4	292.1	81.4	8,334.7	268.2
Hardwoods:								
Alder / maple	79.2	22.3	9.6	8.3	27.5	18.2	116.3	29.9
Aspen / birch	5.5	3.1	1.2	0.9	0.1	0.1	6.8	3.2
Elm / ash / cottonwood	3.2	2.6	--	--	--	--	3.2	2.6
Tanoak / laurel	448.5	59.1	67.5	28.7	135.2	60.0	651.3	88.1
Western oak	690.4	55.8	223.1	22.3	334.3	105.6	1,247.8	120.8
Woodland hardwoods	33.1	8.9	9.7	8.7	2.3	1.7	45.1	12.6
Other hardwoods	62.1	16.5	9.5	4.2	44.3	22.9	115.9	28.6
Total	1,322.0	85.3	320.5	38.4	543.8	125.0	2,186.4	154.1
Nonstocked	--	--	--	--	--	--	794.9	141.5
All forest types	9,290.3	260.1	394.9	42.6	835.9	148.5	11,316.0	318.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 cubic feet was estimated.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 32—Net volume of live trees^a on forest land, by forest type group and ownership group, California, 2006-2015

Forest type group	Ownership Group													
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All private		All owners	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>														
Softwoods:														
California mixed conifer	28,319.6	896.0	3,107.5	367.8	612.8	184.4	5,055.2	353.9	2,047.2	242.2	7,102.4	411.9	39,142.3	1,047.4
Douglas-fir	2,489.6	391.3	526.0	195.9	410.7	152.0	1,654.2	234.9	1,856.4	291.5	3,510.6	367.4	6,936.9	592.2
Fir / spruce / mtn.hemlock	9,415.7	681.9	1,400.2	272.8	95.9	56.0	700.4	143.0	204.7	80.1	905.1	163.1	11,816.8	755.3
Lodgepole pine	2,531.6	265.6	992.5	189.1	28.6	24.0	66.3	32.1	132.6	59.7	198.9	67.7	3,751.6	332.0
Pinyon / juniper woodlands	462.8	54.4	270.8	37.2	35.9	16.9	11.8	5.7	36.4	10.4	48.2	11.9	817.7	68.9
Ponderosa pine	3,628.6	287.6	151.5	48.5	49.6	30.3	795.8	119.8	1,049.9	152.3	1,845.7	191.2	5,675.4	349.7
Redwood	369.2	236.1	870.1	418.9	2,160.0	705.9	2,739.8	390.4	2,437.7	425.9	5,177.4	565.3	8,576.7	1,027.7
Western juniper	524.4	68.4	136.5	24.6	14.5	17.1	21.9	6.8	131.7	23.8	153.6	24.7	829.1	78.7
Western white pine	391.4	96.9	31.1	21.6	--	--	--	--	--	--	--	--	422.5	99.3
Other western softwoods	368.4	72.5	198.7	64.2	19.0	19.6	234.6	119.9	260.1	117.4	494.6	167.8	1,080.7	195.0
Total	48,501.2	1,015.7	7,685.0	601.3	3,427.0	679.8	11,279.9	563.2	8,156.6	585.2	19,436.5	726.5	79,049.7	1,508.6
Hardwoods:														
Alder / maple	101.6	46.4	218.7	93.9	51.7	41.8	356.6	111.5	168.2	60.3	524.8	126.4	896.9	169.2
Aspen / birch	67.2	32.9	0.2	0.2	2.0	2.2	10.6	10.2	7.7	6.3	18.3	12.0	87.7	35.1
Elm / ash / cottonwood	12.3	12.8	--	--	18.5	15.6	2.3	2.3	41.1	29.9	43.4	30.0	74.1	36.1
Tanoak / laurel	1,925.0	288.0	310.0	109.4	903.8	216.5	2,050.6	253.0	3,166.4	343.2	5,217.0	414.6	8,355.8	557.1
Western oak	4,741.1	322.4	795.8	108.1	663.9	88.2	1,686.1	168.3	5,520.5	251.8	7,206.6	293.0	13,407.5	454.0
Woodland hardwoods	75.4	19.1	26.5	9.3	19.5	11.2	1.4	1.3	8.3	6.0	9.7	6.1	131.1	24.8
Other hardwoods	398.2	137.3	61.3	36.1	235.0	110.9	153.3	57.4	376.2	92.6	529.4	108.5	1,224.0	215.1
Total	7,320.8	444.2	1,412.6	180.5	1,894.4	248.6	4,260.8	321.7	9,288.4	421.3	13,549.2	497.9	24,177.0	725.8
Nonstocked														
	72.5	19.8	2.0	1.0	--	--	31.7	9.7	3.9	2.2	35.5	9.9	110.0	22.2
All forest types	55,894.6	945.4	9,099.6	599.2	5,321.4	666.1	15,572.4	600.2	17,448.8	677.9	33,021.2	722.3	103,336.7	1,424.1

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50,000 cubic feet was estimated.

^a Includes all live trees ≥ 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 33—Net volume of dead trees^a on forest land, by forest type group and ownership group, California, 2006-2015

Forest type group	Ownership Group													
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All private		All owners	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>														
Softwoods:														
California mixed conifer	3,298.7	164.5	483.7	77.9	37.2	16.7	317.2	36.1	97.6	23.1	414.8	42.5	4,234.4	186.3
Douglas-fir	275.5	56.0	31.3	16.4	26.9	16.8	99.1	23.0	102.7	26.2	201.8	34.8	535.5	70.0
Fir / spruce / mtn. hemlock	1,430.4	134.1	316.4	78.8	12.6	7.7	49.3	19.7	21.6	10.1	70.9	22.1	1,830.3	157.4
Lodgepole pine	332.0	46.1	131.3	32.5	6.7	5.4	26.5	17.6	13.2	6.1	39.6	18.7	509.6	59.5
Pinyon / juniper woodlands	52.4	9.8	20.0	4.1	2.3	1.3	0.8	0.6	4.5	2.1	5.4	2.2	80.0	10.9
Ponderosa pine	189.5	29.7	12.2	8.8	0.7	1.0	19.8	5.2	24.1	6.6	43.9	8.4	246.2	32.1
Redwood	0.4	0.3	98.5	67.2	83.3	31.8	271.9	75.2	126.0	32.7	397.8	81.7	580.1	110.4
Western juniper	48.8	12.1	7.4	2.9	1.8	2.9	1.8	1.1	5.1	1.8	6.9	2.1	64.9	12.9
Western white pine	75.4	20.0	8.1	6.2	--	--	--	--	--	--	--	--	83.5	21.0
Other western softwoods	71.1	17.9	33.4	14.2	1.9	1.5	42.8	29.5	20.8	12.3	63.6	32.0	170.0	39.3
Total	5,774.2	208.9	1,142.2	131.0	173.5	37.0	829.3	93.7	415.5	50.8	1,244.8	104.7	8,334.7	268.2
Hardwoods:														
Alder / maple	18.9	9.4	24.0	14.3	0.8	0.7	59.5	23.7	13.1	6.1	72.6	24.4	116.3	29.9
Aspen / birch	6.4	3.2	--	--	0.4	0.5	--	--	--	--	--	--	6.8	3.2
Elm / ash / cottonwood	0.2	0.3	--	--	0.1	0.2	--	--	2.8	2.5	2.8	2.5	3.2	2.6
Tanoak / laurel	249.6	66.1	57.0	30.3	40.4	14.7	173.6	41.8	130.8	23.6	304.4	47.7	651.3	88.1
Western oak	778.9	115.7	90.4	20.0	41.3	11.9	94.5	15.1	242.7	21.4	337.2	26.0	1,247.8	120.8
Woodland hardwoods	33.6	12.1	7.1	3.0	2.3	1.5	0.1	0.1	2.0	1.3	2.1	1.3	45.1	12.6
Other hardwoods	76.2	26.2	6.9	6.8	5.3	3.9	7.2	3.1	20.3	7.8	27.5	8.4	115.9	28.6
Total	1,163.8	135.7	185.3	38.5	90.7	19.1	335.1	50.4	411.6	33.1	746.7	59.4	2,186.4	154.1
Nonstocked	734.7	139.3	7.5	4.2	18.4	20.6	31.5	13.6	2.8	1.2	34.3	13.6	794.9	141.5
All forest types	7,672.7	265.4	1,335.0	132.7	282.5	43.2	1,195.8	105.1	829.9	59.6	2,025.7	116.8	11,316.0	318.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50,000 cubic feet was estimated.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 34—Net volume of live trees^a on forest land, by species group and ownership group, California, 2006-2015

Species group	Ownership Group													
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All private		All owners	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>														
Softwoods:														
Douglas-fir	13,555.2	597.3	1,174.6	218.7	902.9	138.9	3,923.7	245.3	3,719.9	281.2	7,643.6	343.0	23,276.3	728.7
Incense-cedar	2,806.3	169.1	267.0	53.4	65.0	25.3	693.5	71.7	443.6	65.4	1,137.1	94.8	4,275.5	201.5
Lodgepole pine	2,704.9	227.3	1,003.2	154.8	20.9	15.9	87.2	32.0	143.1	57.9	230.3	66.1	3,959.3	281.6
Ponderosa and Jeffrey pines	9,319.5	354.3	918.5	114.4	249.3	78.7	1,776.8	136.7	1,748.2	159.2	3,525.0	201.2	14,012.4	427.1
Redwood	362.7	219.2	724.0	328.6	2,114.8	606.8	2,922.4	315.0	2,580.0	360.0	5,502.4	462.9	8,704.0	862.1
Sitka spruce	--	--	19.1	13.4	57.4	58.3	139.0	67.4	69.4	42.3	208.4	79.5	285.0	100.0
Sugar pine	2,805.9	170.9	432.5	128.3	80.0	34.9	621.0	64.6	179.5	39.0	800.4	74.3	4,118.9	227.2
True fir	16,027.9	694.2	2,394.1	294.2	253.4	82.6	2,036.6	175.5	660.7	106.9	2,697.4	200.9	21,372.8	781.5
Western hemlock	5.4	4.8	28.1	14.3	65.2	46.1	85.3	41.2	14.6	8.4	100.0	42.0	198.7	64.2
Western juniper	326.7	30.5	113.7	17.3	5.3	3.6	22.2	5.8	97.3	17.6	119.5	18.5	565.2	39.8
Western white pine	832.1	89.2	190.4	42.1	2.2	2.4	15.7	6.5	1.5	1.5	17.2	6.7	1,041.8	98.7
Woodland softwoods	427.1	47.5	273.8	36.6	28.0	14.0	10.5	5.2	43.4	10.6	53.8	11.8	782.7	62.5
Other western softwoods	1,261.3	142.6	511.3	111.6	88.7	28.6	165.8	36.8	572.8	78.6	738.6	86.6	2,599.9	203.8
Total	50,435.1	938.8	8,050.4	584.8	3,933.2	655.4	12,499.7	532.2	10,274.1	556.4	22,773.8	649.8	85,192.5	1,394.6
Hardwoods:														
Cottonwood and aspen	71.3	24.2	4.3	3.1	38.8	23.0	11.1	6.1	44.7	23.3	55.9	24.1	170.3	41.3
Oak	3,638.9	183.0	617.0	72.7	558.4	64.7	1,343.9	106.7	4,438.3	170.6	5,782.3	191.7	10,596.5	278.8
Red alder	37.5	15.0	100.4	41.8	22.0	15.5	254.4	60.1	50.6	18.2	305.0	62.6	464.9	78.3
Tanoak	710.2	94.4	119.2	40.3	375.4	83.1	998.3	110.0	1,301.6	142.5	2,299.9	173.5	3,504.7	217.4
Woodland hardwoods	41.6	8.0	28.4	8.7	10.2	8.0	1.8	1.3	2.0	0.7	3.8	1.4	84.0	14.3
Other western hardwoods	959.9	84.5	179.9	41.0	383.3	64.0	463.1	55.3	1,337.5	99.5	1,800.6	111.0	3,323.8	157.7
Total	5,459.5	242.8	1,049.2	112.0	1,388.2	146.1	3,072.6	187.5	7,174.8	268.3	10,247.4	299.7	18,144.3	419.0
All species groups	55,894.6	945.4	9,099.6	599.2	5,321.4	666.1	15,572.4	600.2	17,448.8	677.9	33,021.2	722.3	103,336.7	1,424.1

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50,000 cubic feet was estimated.

^a Includes all live trees ≥ 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 35—Net volume of dead trees^a on forest land, by species group and ownership group, California, 2006–2015

Species group	Ownership Group													
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All private		All owners	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>Million cubic feet</i>													
Softwoods:														
Douglas-fir	1,607.2	143.3	112.7	31.3	45.0	14.8	176.3	23.7	153.8	28.5	330.1	36.6	2,095.0	151.7
Incense-cedar	288.5	27.7	44.9	11.8	6.9	3.3	65.1	12.0	35.6	7.2	100.7	13.9	441.0	33.3
Lodgepole pine	420.4	57.1	185.5	38.3	6.3	5.4	25.7	16.9	14.4	6.8	40.0	18.3	652.2	71.1
Ponderosa and Jeffrey pines	838.4	69.2	82.9	24.7	8.2	5.1	84.5	16.4	39.4	7.5	123.9	17.9	1,053.5	75.7
Redwood	7.6	7.9	96.5	66.8	56.5	23.7	419.1	87.3	125.8	31.1	544.9	92.2	705.5	116.6
Sitka spruce	--	--	--	--	--	--	0.8	0.5	1.2	0.9	2.0	1.0	2.0	1.0
Sugar pine	553.0	67.7	106.2	29.6	2.8	1.6	23.7	6.1	19.2	13.0	42.9	14.3	704.9	75.3
True fir	2,938.9	164.3	495.8	78.3	25.5	9.5	170.7	25.6	52.3	15.3	223.0	29.7	3,683.2	184.1
Western hemlock	--	--	2.1	1.5	14.2	10.4	3.0	1.6	--	--	3.0	1.6	19.3	10.6
Western juniper	15.0	3.8	4.5	2.2	--	--	0.2	0.1	2.1	1.0	2.3	1.0	21.7	4.5
Western white pine	126.0	19.9	22.4	8.7	0.4	0.5	3.0	2.7	0.1	0.1	3.1	2.7	152.0	21.9
Woodland softwoods	70.7	13.3	23.9	5.0	1.4	1.0	0.5	0.5	5.2	2.2	5.7	2.2	101.7	14.5
Other western softwoods	191.2	25.1	66.7	17.7	33.8	21.0	12.1	7.3	39.2	10.5	51.3	12.7	343.0	39.3
Total	7,056.9	259.3	1,244.3	131.7	201.0	38.3	984.5	99.3	488.4	51.0	1,472.9	109.1	9,975.0	310.6
Hardwoods:														
Cottonwood and aspen	12.4	4.7	0.6	0.5	0.6	0.5	--	--	1.8	1.3	1.8	1.3	15.3	4.9
Oak	388.3	35.1	52.6	10.1	29.8	8.4	75.1	11.6	199.5	17.6	274.6	20.8	745.3	42.8
Red alder	2.6	1.6	8.2	3.8	0.8	0.6	14.9	5.3	4.6	2.2	19.5	5.7	31.1	7.1
Tanoak	66.5	16.9	12.5	9.2	30.6	14.3	75.0	21.8	53.0	11.6	128.1	24.6	237.6	34.3
Woodland hardwoods	29.3	9.7	11.4	4.3	2.7	1.6	0.3	0.2	1.4	0.8	1.7	0.8	45.1	10.8
Other western hardwoods	116.7	17.0	5.6	2.2	17.2	5.0	46.0	11.2	81.1	13.0	127.1	17.1	266.6	24.7
Total	615.8	45.7	90.8	15.7	81.6	17.7	211.3	29.4	341.5	25.7	552.8	38.4	1,341.0	64.1
All species groups	7,672.7	265.4	1,335.0	132.7	282.5	43.2	1,195.8	105.1	829.9	59.6	2,025.7	116.8	11,316.0	318.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50,000 cubic feet was estimated.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 36—Net volume of live trees^a on forest land, by species group and diameter class, California, 2006-2015

Species group	Diameter class (inches)																	
	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			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>																		
Softwoods:																		
Douglas-fir	426.2	17.6	689.3	29.4	907.0	38.5	1,082.0	48.8	1,185.2	56.0	1,224.8	61.8	1,352.8	72.1	1,235.7	76.0		
Incense-cedar	126.5	7.3	164.4	9.6	211.4	13.2	232.8	15.8	211.7	15.8	247.7	19.4	245.0	21.2	268.0	24.4		
Lodgepole pine	79.0	11.2	115.5	13.1	196.0	22.0	227.0	21.5	308.0	31.4	290.5	31.7	345.8	36.6	379.6	42.2		
Ponderosa and Jeffrey pines	170.7	8.5	314.0	15.9	489.1	24.9	662.3	32.7	788.0	40.1	887.9	46.3	977.8	56.6	976.8	62.3		
Redwood	49.8	4.8	100.4	9.7	148.4	15.1	212.7	21.5	248.5	23.6	308.2	30.5	317.8	32.3	373.6	45.4		
Sitka spruce	1.7	0.9	5.0	2.3	4.4	2.2	7.2	4.8	11.2	5.9	14.2	9.8	20.9	14.4	11.9	7.2		
Sugar pine	20.4	2.0	37.5	3.7	57.8	5.9	76.9	7.6	84.7	9.7	104.3	12.8	128.6	16.3	147.9	19.5		
True fir	311.9	13.0	510.1	21.2	759.8	32.8	916.1	39.9	1,128.0	53.2	1,306.1	65.2	1,336.1	73.6	1,420.9	77.1		
Western hemlock	4.6	2.2	7.2	2.4	10.0	3.9	13.2	5.1	16.5	7.5	14.0	6.6	19.6	8.0	18.8	10.6		
Western juniper	18.7	1.7	37.3	3.3	52.6	4.7	52.7	5.1	61.2	6.7	51.2	6.3	62.6	8.1	43.1	7.1		
Western white pine	8.6	1.2	13.8	2.1	20.2	3.6	22.0	4.0	25.9	5.2	31.9	8.1	46.7	11.3	41.0	10.5		
Woodland softwoods	18.3	2.1	38.0	4.0	59.3	6.1	78.4	8.9	98.4	11.3	96.5	10.8	105.6	12.2	72.6	9.8		
Other western softwoods	55.8	6.6	90.2	9.1	113.4	10.1	135.2	13.4	151.2	15.9	179.0	20.5	219.9	26.8	245.4	34.7		
Total	1,292.3	28.1	2,122.7	43.9	3,029.3	62.5	3,718.6	77.3	4,318.4	95.0	4,756.6	111.1	5,179.0	130.8	5,235.2	142.1		
Hardwoods:																		
Cottonwood and aspen	6.1	2.2	6.8	2.1	7.5	2.3	9.5	3.2	12.7	4.4	16.7	6.4	10.7	4.9	18.5	8.5		
Oak	862.5	31.8	1,183.4	41.1	1,282.1	44.9	1,201.3	45.8	1,071.8	46.6	949.3	44.1	878.6	47.7	653.3	42.7		
Red alder	18.7	3.9	46.4	8.0	67.9	11.8	98.5	20.1	59.7	14.2	65.5	17.1	48.9	16.0	25.2	9.0		
Tanoak	245.7	15.4	340.8	21.9	406.4	28.2	410.9	29.8	365.7	30.1	320.1	30.9	268.1	30.0	287.4	33.1		
Woodland hardwoods	6.2	1.4	8.5	1.9	11.9	2.7	9.9	1.9	8.7	2.1	9.3	2.2	8.6	2.2	9.2	2.7		
Other western hardwoods	248.4	13.9	330.0	18.5	376.6	22.4	367.7	25.1	384.0	28.7	279.7	25.2	332.5	33.0	198.3	25.8		
Total	1,387.5	38.6	1,915.9	51.1	2,152.3	58.7	2,097.7	64.7	1,902.7	66.4	1,640.6	63.0	1,547.5	68.6	1,191.9	63.7		
All species groups	2,679.8	47.1	4,038.6	65.2	5,181.7	82.9	5,816.4	96.5	6,221.1	112.0	6,397.2	124.0	6,726.5	143.7	6,427.2	152.5		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50,000 cubic feet was estimated.

^a Includes all live trees ≥ 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 36—Net volume of live trees^a on forest land, by species group and diameter class, California, 2006-2015 (Continued)

Species group	Diameter class (inches)																	
	21.0-22.9		23.0-24.9		25.0-26.9		27.0-28.9		29.0-30.9		31.0-32.9		33.0-34.9		35.0-36.9			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>																		
Softwoods:																		
Douglas-fir	1,066.2	72.4	971.0	61.3	1,076.6	48.9	993.0	49.4	1,003.9	53.4	931.4	51.4	903.3	53.7	820.1	54.8		
Incense-cedar	239.1	27.0	207.9	21.1	246.6	17.9	201.9	15.4	184.9	16.1	171.6	15.2	171.4	16.0	143.4	15.5		
Lodgepole pine	357.4	43.3	303.6	37.9	289.4	27.4	236.9	25.6	207.7	27.9	168.7	22.3	107.2	17.0	92.2	14.7		
Ponderosa and Jeffrey pines	1,005.8	67.3	867.5	56.4	775.9	40.1	828.5	43.2	750.8	42.0	706.1	46.5	639.7	46.3	543.4	45.4		
Redwood	388.1	47.3	426.0	48.2	467.8	47.9	456.1	42.7	412.2	43.9	376.8	44.0	361.7	41.9	297.0	36.6		
Sitka spruce	40.1	27.3	6.3	3.5	15.2	6.1	8.5	3.9	12.8	5.5	6.9	3.7	13.4	5.8	7.9	6.3		
Sugar pine	174.3	25.1	182.3	22.8	199.5	16.0	249.9	19.9	240.4	21.2	208.1	20.9	266.8	24.8	222.5	25.6		
True fir	1,276.5	82.4	1,208.2	70.4	1,176.2	58.7	1,265.7	65.7	1,141.9	63.8	1,088.7	65.5	887.1	56.7	881.3	62.0		
Western hemlock	23.6	13.3	0.7	0.7	10.3	4.0	8.7	4.9	5.5	2.7	7.1	5.4	2.4	2.5	1.8	1.7		
Western juniper	34.2	6.3	28.6	5.4	20.5	2.7	13.6	2.4	12.3	2.2	11.2	2.2	8.3	2.0	7.1	2.2		
Western white pine	36.2	10.3	37.4	7.8	50.1	7.2	42.6	7.9	55.7	9.1	56.5	10.6	48.2	9.0	47.5	8.9		
Woodland softwoods	51.6	10.1	45.4	7.7	32.7	4.6	22.5	4.0	10.0	2.2	12.9	3.1	9.4	2.4	9.9	2.6		
Other western softwoods	209.1	30.4	171.9	24.5	154.7	17.8	138.9	16.2	111.6	16.1	102.5	16.2	80.0	13.6	84.8	15.6		
Total	4,902.1	152.6	4,456.7	128.8	4,515.7	104.5	4,466.8	106.4	4,149.7	109.9	3,848.5	109.4	3,498.9	106.3	3,158.8	107.7		
Hardwoods:																		
Cottonwood and aspen	14.9	7.0	23.6	10.8	8.4	3.2	14.2	5.3	7.0	2.9	4.4	2.2	0.6	0.6	3.9	2.4		
Oak	561.4	45.1	475.1	38.0	323.3	19.0	256.9	18.7	189.2	16.1	177.2	17.5	134.6	16.9	70.6	10.9		
Red alder	6.3	4.2	16.2	8.3	3.0	1.6	1.5	1.5	4.1	2.0	3.1	2.1	--	--	--	--		
Tanoak	239.9	34.3	209.3	33.2	112.7	13.6	97.2	13.5	57.1	9.9	34.1	7.1	21.8	6.1	18.9	6.6		
Woodland hardwoods	1.7	1.0	2.1	1.1	3.3	1.0	1.7	0.8	1.4	0.6	0.5	0.5	--	--	0.8	0.5		
Other western hardwoods	172.0	26.7	153.8	21.6	92.0	9.7	77.2	9.9	62.1	9.2	48.7	10.7	30.1	7.5	41.9	10.7		
Total	996.1	64.0	880.2	58.0	542.7	26.6	448.8	26.6	320.9	22.2	268.0	21.9	187.1	19.5	136.2	17.1		
All species groups	5,898.3	163.9	5,336.9	139.5	5,058.4	107.2	4,915.6	109.5	4,470.6	111.8	4,116.5	111.5	3,686.0	108.4	3,295.0	109.2		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 cubic feet was estimated.

^a Includes all live trees ≥ 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 36—Net volume of live trees^a on forest land, by species group and diameter class, California 2006–2015 (Continued)

Species group	Diameter class (inches)																	
	37.0-38.9		39.0-40.9		41.0-42.9		43.0-44.9		45.0-46.9		47.0-48.9		49.0 +		All classes			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Softwoods:</i>																		
Douglas-fir	842.1	57.9	802.8	58.5	615.6	53.7	693.4	59.8	619.4	56.7	528.7	55.5	3,305.8	272.1	23,276.3	728.7		
Incense-cedar	148.8	18.7	126.1	16.7	114.1	15.4	99.2	14.5	81.3	14.8	62.0	13.8	369.8	50.8	4,275.5	201.5		
Lodgepole pine	67.2	12.2	64.7	14.4	37.6	9.6	39.2	11.6	20.7	7.1	13.5	6.3	11.9	9.2	3,959.3	281.6		
Ponderosa and Jeffrey pines	402.2	36.8	498.2	43.0	363.5	36.9	264.9	32.1	272.5	35.0	218.0	34.7	608.8	86.3	14,012.4	427.1		
Redwood	310.9	43.2	250.6	35.2	188.8	31.1	213.3	34.7	151.6	27.9	99.8	20.6	2,544.3	694.9	8,704.0	862.1		
Sitka spruce	9.2	5.0	5.2	3.8	14.2	6.8	9.5	5.3	5.4	4.7	--	--	53.8	45.3	285.0	100.0		
Sugar pine	177.2	21.4	180.1	23.6	155.6	22.6	119.9	21.3	147.7	23.1	148.2	26.1	788.4	121.4	4,118.9	227.2		
True fir	774.7	59.2	735.8	61.1	657.9	66.8	480.1	46.9	455.7	52.0	400.3	45.4	1,253.4	133.9	21,372.8	781.5		
Western hemlock	--	--	--	--	3.0	3.4	--	--	6.4	4.7	--	--	25.3	28.2	198.7	64.2		
Western juniper	10.2	3.0	9.1	3.0	5.8	1.9	2.6	1.1	4.7	2.2	3.1	1.3	14.8	4.0	565.2	39.8		
Western white pine	66.0	11.6	61.4	11.1	35.3	8.5	45.9	11.0	27.3	8.8	47.1	12.9	174.5	36.8	1,041.8	98.7		
Woodland softwoods	4.8	1.6	3.4	1.3	3.9	1.6	1.7	1.3	3.5	1.9	0.3	0.4	3.3	2.3	782.7	62.5		
Other western softwoods	72.1	13.3	38.4	10.1	38.9	10.3	26.2	10.2	28.7	9.0	27.3	11.1	124.6	59.8	2,599.9	203.8		
Total	2,885.5	107.2	2,775.8	104.9	2,234.2	102.1	1,995.7	94.5	1,825.0	95.2	1,548.2	87.5	9,278.7	823.3	85,192.5	1,394.6		
<i>Hardwoods:</i>																		
Cottonwood and aspen	2.5	2.5	--	--	--	--	--	--	--	--	--	--	2.3	2.3	170.3	41.3		
Oak	81.6	14.2	67.9	13.7	56.7	14.1	25.6	9.0	27.3	9.8	14.9	6.9	51.8	16.7	10,596.5	278.8		
Red alder	--	--	--	--	--	--	--	--	--	--	--	--	--	--	464.9	78.3		
Tanoak	16.9	7.0	4.9	2.8	15.9	6.4	2.1	2.3	7.4	5.1	7.2	5.0	14.3	9.3	3,504.7	217.4		
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	84.0	14.3		
Other western hardwoods	26.4	7.5	18.3	6.7	17.2	7.6	16.1	6.5	16.6	8.6	10.4	6.1	23.9	8.9	3,323.8	157.7		
Total	127.3	17.8	91.0	15.5	89.8	17.5	43.8	11.3	51.3	14.3	32.5	10.5	92.3	21.2	18,144.3	419.0		
All species groups	3,012.8	109.0	2,866.8	106.0	2,324.0	103.8	2,039.5	95.4	1,876.3	96.3	1,580.7	88.3	9,371.0	823.5	103,336.7	1,424.1		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50,000 cubic feet was estimated.

^a Includes all live trees ≥ 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 37—Net volume of dead trees^a on forest land, by species group and diameter class, California, 2006-2015

Species group	Diameter class (inches)															
	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	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>																
Softwoods:																
Douglas-fir	38.5	3.4	49.8	5.1	59.6	8.0	66.9	8.5	72.4	9.4	100.7	16.2	70.2	13.4	77.9	15.5
Incense-cedar	21.0	2.2	24.3	2.7	20.7	3.1	25.6	3.9	21.0	4.0	16.7	4.0	20.7	4.7	18.6	5.4
Lodgepole pine	14.3	3.4	16.4	4.9	26.2	8.1	33.5	9.0	43.0	10.5	46.5	9.9	31.3	8.9	77.2	15.6
Ponderosa and Jeffrey pines	17.9	2.2	24.8	3.5	34.6	5.3	30.7	5.1	45.0	6.9	34.7	6.1	46.5	9.9	32.8	8.2
Redwood	4.6	1.0	4.9	1.2	9.8	2.2	5.5	1.7	1.5	1.4	5.3	2.3	5.4	2.0	5.2	2.7
Sitka spruce	0.4	0.3	0.3	0.3	0.1	0.1	--	--	--	--	--	--	--	--	--	--
Sugar pine	4.4	0.8	11.6	1.9	11.7	2.1	16.2	3.3	16.5	4.2	22.4	5.2	18.1	5.8	19.4	7.0
True fir	52.6	3.6	81.7	5.3	118.1	8.8	149.7	12.5	167.9	14.0	180.0	16.0	173.3	19.5	228.0	23.8
Western hemlock	0.2	0.1	0.7	0.5	1.9	0.9	0.7	0.7	--	--	--	--	--	--	--	--
Western juniper	0.6	0.2	1.6	0.5	1.1	0.4	0.8	0.4	0.8	0.5	3.3	1.3	0.9	0.7	1.9	1.1
Western white pine	2.3	0.6	2.6	1.1	5.1	1.5	4.6	1.5	4.6	2.7	3.4	2.1	4.5	2.4	11.5	5.7
Woodland softwoods	3.3	0.6	6.1	1.1	9.8	1.9	11.2	2.7	12.7	3.4	13.0	3.1	11.0	3.5	14.5	5.1
Other western softwoods	8.7	1.7	13.6	3.5	18.8	4.8	19.5	4.0	23.6	4.6	18.9	4.7	19.9	5.3	22.1	6.8
Total	168.7	7.6	238.4	11.6	317.6	17.3	364.8	20.3	409.1	23.2	445.0	27.0	401.9	29.1	509.0	36.3
Hardwoods:																
Cottonwood and aspen	1.7	0.8	1.2	0.6	2.5	1.1	1.6	1.1	1.6	1.0	2.5	1.8	1.1	1.1	--	--
Oak	102.7	7.3	109.8	9.0	93.3	10.8	64.2	7.8	57.5	7.9	55.6	8.8	48.7	8.3	29.9	8.1
Red alder	2.6	0.6	4.4	1.3	7.7	2.5	4.8	1.8	2.4	1.9	4.1	4.0	2.6	1.5	--	--
Tanoak	19.1	2.9	24.2	4.0	28.7	5.8	25.4	5.6	33.4	7.9	25.4	7.6	20.5	6.0	17.9	6.9
Woodland hardwoods	3.2	0.9	6.1	1.7	6.9	1.6	5.2	1.8	6.0	2.3	4.3	2.5	3.8	1.9	3.3	1.9
Other western hardwoods	32.0	3.5	35.5	4.5	34.2	4.6	34.0	5.5	20.2	4.7	26.0	6.2	22.4	6.6	15.8	6.2
Total	161.3	9.0	181.3	11.5	173.3	13.8	135.2	11.6	121.1	12.4	117.8	14.3	99.1	12.5	66.9	12.4
All species groups	330.0	12.1	419.7	16.8	491.0	22.1	500.0	23.6	530.3	26.5	562.8	30.5	501.0	31.7	575.9	38.1

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 cubic feet was estimated.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 37—Net volume of dead trees^a on forest land, by species group and diameter class, California, 2006-2015 (Continued)

Species group	Diameter class (inches)																	
	21.0-22.9		23.0-24.9		25.0-26.9		27.0-28.9		29.0-30.9		31.0-32.9		33.0-34.9		35.0-36.9			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>																		
Softwoods:																		
Douglas-fir	59.5	13.9	69.5	12.9	80.5	8.9	86.1	11.3	82.5	10.9	93.1	13.8	105.4	13.6	93.5	13.4		
Incense-cedar	17.9	5.6	16.7	4.6	14.7	2.9	14.9	2.9	20.6	3.9	27.3	4.9	22.2	5.0	10.6	3.2		
Lodgepole pine	49.9	14.4	34.7	7.7	57.6	8.8	51.8	8.5	37.4	7.1	26.6	6.2	24.1	5.8	21.8	6.3		
Ponderosa and Jeffrey pines	49.7	11.7	57.2	11.0	57.7	8.4	53.2	7.2	59.5	8.6	73.1	10.1	51.6	8.9	43.9	9.2		
Redwood	2.3	1.1	8.2	5.4	2.8	0.9	7.6	2.6	4.5	1.5	3.3	0.9	7.9	2.5	8.3	2.2		
Sitka spruce	1.0	0.8	--	--	0.3	0.3	--	--	--	--	--	--	--	--	--	--	--	--
Sugar pine	12.8	5.6	12.8	3.0	24.1	4.6	22.8	4.6	25.7	5.2	31.8	7.9	26.2	6.9	21.3	6.5		
True fir	232.6	25.7	210.9	22.4	188.6	15.8	193.0	16.5	187.3	16.7	165.7	16.1	175.8	17.4	156.5	17.1		
Western hemlock	1.0	0.9	--	--	1.2	1.2	0.4	0.4	--	--	2.9	2.8	--	--	0.9	1.0		
Western juniper	0.5	0.5	3.0	1.8	1.1	0.5	0.3	0.3	1.1	0.6	1.0	0.6	0.4	0.4	1.1	1.1		
Western white pine	7.1	3.9	6.3	3.6	11.7	3.0	8.8	2.9	8.7	3.0	8.1	2.9	8.0	3.3	3.7	1.9		
Woodland softwoods	0.8	0.8	2.9	2.0	3.8	1.2	2.5	1.3	4.3	1.8	0.7	0.6	3.3	1.6	1.1	1.1		
Other western softwoods	23.2	7.1	38.0	8.7	18.3	4.2	18.8	4.2	17.6	4.2	16.1	4.0	11.7	3.6	7.4	3.4		
Total	458.2	36.8	460.1	31.7	462.5	23.9	460.2	24.7	449.1	24.8	449.7	26.8	436.7	26.3	370.1	25.7		
Hardwoods:																		
Cottonwood and aspen	--	--	0.4	0.5	--	--	--	--	--	--	--	--	2.6	1.6	--	--		
Oak	28.5	7.0	33.8	7.7	19.2	3.3	27.2	4.8	14.5	3.5	19.9	4.5	11.2	3.5	4.5	2.1		
Red alder	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak	10.5	5.1	6.2	3.9	4.1	1.5	2.9	1.4	6.6	2.8	0.4	0.2	1.8	1.4	2.8	2.1		
Woodland hardwoods	2.9	1.9	0.5	0.4	--	--	0.9	0.6	--	--	1.0	0.8	--	--	--	--		
Other western hardwoods	10.0	4.6	11.9	5.7	4.5	1.8	2.0	1.2	5.0	2.3	2.3	1.5	1.6	1.4	2.7	2.0		
Total	52.0	10.0	52.9	10.7	27.8	4.3	33.0	5.2	26.1	5.0	23.6	4.8	17.2	4.3	9.9	3.6		
All species groups	510.2	38.3	513.0	33.4	490.2	24.3	493.2	25.2	475.3	25.2	473.3	27.3	453.9	26.6	380.1	26.0		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 cubic feet was estimated.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 37—Net volume of dead trees^a on forest land, by species group and diameter class, California, 2006-2015 (Continued)

Species group	Diameter class (inches)																	
	37.0-38.9		39.0-40.9		41.0-42.9		43.0-44.9		45.0-46.9		47.0-48.9		49.0 +		All classes			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>																		
Softwoods:																		
Douglas-fir	73.2	12.8	69.1	12.9	84.6	15.5	94.8	19.2	78.1	14.8	91.3	18.2	397.6	57.3	2,095.0	151.7		
Incense-cedar	17.0	4.4	8.6	3.3	14.4	4.2	17.6	5.5	10.3	4.4	14.6	6.0	45.1	12.4	441.0	33.3		
Lodgepole pine	18.1	6.6	12.0	4.9	11.3	4.8	5.1	3.2	3.6	2.9	2.3	2.3	7.5	5.4	652.2	71.1		
Ponderosa and Jeffrey pines	51.0	11.2	33.3	8.8	38.4	9.4	49.6	12.8	28.8	10.6	29.9	11.4	109.5	24.9	1,053.5	75.7		
Redwood	8.4	2.3	6.3	2.0	8.9	3.0	8.4	2.4	7.2	2.2	7.2	2.2	572.1	112.4	705.5	116.6		
Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.0	1.0		
Sugar pine	28.2	8.7	44.0	11.6	30.2	10.1	38.5	11.7	15.4	6.8	22.4	9.7	228.2	44.8	704.9	75.3		
True fir	94.7	12.9	100.2	13.7	117.9	17.4	104.3	17.5	102.9	17.9	79.0	15.3	422.6	57.4	3,683.2	184.1		
Western hemlock	5.2	4.0	--	--	--	--	1.4	1.4	--	--	2.9	3.2	--	--	19.3	10.6		
Western juniper	0.4	0.4	--	--	0.8	0.8	--	--	0.3	0.3	--	--	0.6	0.6	21.7	4.5		
Western white pine	14.9	5.0	5.1	2.8	5.8	3.6	4.5	3.6	3.1	2.6	6.1	4.1	11.6	6.1	152.0	21.9		
Woodland softwoods	0.2	0.2	--	--	0.5	0.5	--	--	--	--	--	--	--	--	101.7	14.5		
Other western softwoods	10.4	4.3	--	--	4.7	2.7	3.9	2.8	1.9	2.1	--	--	25.9	15.5	343.0	39.3		
Total	321.7	26.7	278.6	25.1	317.4	28.0	328.0	32.2	251.6	26.9	255.4	28.9	1,820.9	152.7	9,975.0	310.6		
Hardwoods:																		
Cottonwood and aspen	--	--	--	--	--	--	--	--	--	--	--	--	--	--	15.3	4.9		
Oak	8.3	3.4	3.2	2.3	6.8	3.7	0.6	0.6	0.2	0.2	--	--	5.6	4.4	745.3	42.8		
Red alder	2.5	2.0	--	--	--	--	--	--	--	--	--	--	--	--	31.1	7.1		
Tanoak	--	--	2.9	2.2	2.1	1.7	2.7	2.5	--	--	--	--	--	--	237.6	34.3		
Woodland hardwoods	1.0	1.0	--	--	--	--	--	--	--	--	--	--	--	--	45.1	10.8		
Other western hardwoods	--	--	--	--	--	--	3.4	2.5	2.2	1.8	--	--	1.0	0.8	266.6	24.7		
Total	11.8	4.1	6.1	3.2	8.8	4.1	6.8	3.6	2.4	1.9	--	--	6.5	4.4	1,341.0	64.1		
All species groups	333.5	27.0	284.7	25.7	326.3	28.3	334.8	32.4	254.1	27.0	255.4	28.9	1,827.4	152.8	11,316.0	318.9		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50,000 cubic feet was estimated.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 38—Net volume of live trees^a on forest land, by forest type group and stand origin, California, 2006-2015

Forest type group	Stand origin					
	Natural Stands		Artificial regeneration		Total	
	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>						
Softwoods:						
California mixed conifer	38,669.0	1,048.4	473.3	84.8	39,142.3	1,047.4
Douglas-fir	6,669.3	585.4	267.6	96.8	6,936.9	592.2
Fir / spruce / mtn. hemlock	11,738.0	754.3	78.8	46.7	11,816.8	755.3
Lodgepole pine	3,751.6	332.0	--	--	3,751.6	332.0
Pinyon / juniper woodlands	809.0	68.5	8.7	8.7	817.7	68.9
Ponderosa pine	4,980.2	328.9	695.3	125.1	5,675.4	349.7
Redwood	8,403.1	1,024.6	173.7	88.5	8,576.7	1,027.7
Western juniper	828.2	78.6	0.8	0.8	829.1	78.7
Western white pine	422.5	99.3	--	--	422.5	99.3
Other western softwoods	1,080.7	195.0	--	--	1,080.7	195.0
Total	77,351.6	1,514.6	1,698.1	204.2	79,049.7	1,508.6
Hardwoods:						
Alder / maple	870.6	167.5	26.2	23.5	896.9	169.2
Aspen / birch	87.7	35.1	--	--	87.7	35.1
Elm / ash / cottonwood	74.1	36.1	--	--	74.1	36.1
Tanoak / laurel	8,189.0	555.6	166.8	50.5	8,355.8	557.1
Western oak	13,319.1	453.5	88.4	29.1	13,407.5	454.0
Woodland hardwoods	131.0	24.8	0.1	0.0	131.1	24.8
Other hardwoods	1,184.3	213.8	39.7	23.9	1,224.0	215.1
Total	23,855.8	724.3	321.2	67.1	24,177.0	725.8
Nonstocked	92.6	21.4	17.4	6.0	110.0	22.2
All forest types	101,300.0	1,439.1	2,036.7	214.7	103,336.7	1,424.1

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error.

^a Includes all live trees ≥ 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 39—Net volume of dead trees^a on forest land, by forest type group and stand origin, California, 2006-2015

Forest type group	Stand origin					
	Natural Stands		Artificial regeneration		Total	
	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>						
Softwoods:						
California mixed conifer	4,201.0	186.2	33.5	8.1	4,234.4	186.3
Douglas-fir	528.1	69.9	7.4	2.9	535.5	70.0
Fir / spruce / mtn. hemlock	1,829.4	157.4	0.9	0.7	1,830.3	157.4
Lodgepole pine	509.6	59.5	--	--	509.6	59.5
Pinyon / juniper woodlands	79.4	10.9	0.6	0.6	80.0	10.9
Ponderosa pine	230.9	31.8	15.4	4.6	246.2	32.1
Redwood	569.3	110.3	10.7	5.5	580.1	110.4
Western juniper	64.9	12.9	--	--	64.9	12.9
Western white pine	83.5	21.0	--	--	83.5	21.0
Other western softwoods	170.0	39.3	--	--	170.0	39.3
Total	8,266.2	268.3	68.5	11.2	8,334.7	268.2
Hardwoods:						
Alder / maple	108.5	28.8	7.8	8.1	116.3	29.9
Aspen / birch	6.8	3.2	--	--	6.8	3.2
Elm / ash / cottonwood	3.2	2.6	--	--	3.2	2.6
Tanoak / laurel	617.6	85.0	33.6	23.4	651.3	88.1
Western oak	1,233.4	120.6	14.4	7.8	1,247.8	120.8
Woodland hardwoods	45.1	12.6	--	--	45.1	12.6
Other hardwoods	106.3	27.8	9.6	6.7	115.9	28.6
Total	2,120.9	151.8	65.5	26.8	2,186.4	154.1
Nonstocked	710.8	134.1	84.1	45.8	794.9	141.5
All forest types	11,098.0	315.8	218.0	54.1	11,316.0	318.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50,000 cubic feet was estimated.

a Includes all dead trees >= 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory

Table 40—Net volume of live trees^a on forest land, by forest type group and stand age class, California, 2006-2015

Forest type group	Stand age class (years)													
	1-20		21-40		41-60		61-80		81-100		101-120		121-140	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>														
Softwoods:														
California mixed conifer	170.3	50.4	414.2	80.7	1,698.1	191.1	4,940.3	377.9	7,647.0	511.8	5,571.3	475.7	4,316.2	467.9
Douglas-fir	96.8	34.2	894.3	158.5	1,381.0	229.9	1,285.6	261.2	481.3	127.5	320.7	142.2	431.4	180.0
Fir / spruce / mtn. hemlock	17.9	10.2	31.5	17.0	396.1	95.4	1,256.7	223.9	1,821.8	255.8	1,562.5	272.8	1,161.5	233.0
Lodgepole pine	4.0	3.0	2.9	2.3	32.1	21.7	265.3	73.6	286.5	89.9	306.1	89.2	356.8	110.9
Pinyon / juniper woodlands	1.4	1.5	1.1	1.0	4.0	2.5	62.2	21.8	87.8	24.5	48.8	22.3	32.8	14.4
Ponderosa pine	55.1	14.8	390.3	71.0	597.3	117.8	842.3	123.5	1,819.4	200.2	929.8	153.7	474.2	129.0
Redwood	87.0	39.8	355.0	110.0	1,206.8	266.9	1,008.2	225.5	1,681.2	363.8	495.1	192.7	502.7	203.0
Western juniper	0.5	0.4	7.4	3.3	50.5	12.4	125.6	20.2	180.6	29.2	124.5	34.1	37.2	15.0
Western white pine	--	--	15.7	15.3	14.1	8.9	16.9	13.6	27.6	17.7	32.8	31.4	2.7	2.5
Other western softwoods	0.7	0.7	50.3	37.5	290.9	124.8	117.3	61.1	135.9	91.5	54.9	30.5	15.6	16.3
Total	433.6	74.7	2,162.6	222.4	5,671.0	436.3	9,920.2	568.6	14,169.1	711.0	9,446.4	615.4	7,331.1	608.2
Hardwoods:														
Alder / maple	39.9	22.5	290.1	96.8	248.2	95.3	83.8	56.6	89.2	48.7	49.0	48.3	14.7	13.7
Aspen / birch	--	--	11.3	8.9	12.9	10.5	9.2	6.4	--	--	--	--	34.4	27.7
Elm / ash / cottonwood	--	--	8.1	7.9	--	--	--	--	2.3	2.3	--	--	--	--
Tanoak / laurel	48.9	17.0	649.4	114.0	2,432.4	285.2	1,432.3	243.5	1,220.9	225.1	509.7	163.2	120.7	64.1
Western oak	98.1	23.0	222.8	50.4	1,097.8	126.3	1,948.4	190.2	2,207.8	209.3	1,340.4	195.4	694.5	128.8
Woodland hardwoods	--	--	0.1	0.0	5.5	3.3	25.4	10.9	11.1	5.9	5.6	5.1	--	--
Other hardwoods	2.5	1.5	76.7	43.9	162.9	64.0	269.4	99.4	178.5	86.9	99.3	75.6	133.0	93.6
Total	189.5	36.4	1,258.5	162.7	3,959.7	328.3	3,768.5	326.1	3,709.7	321.5	2,004.0	269.8	997.2	174.1
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All forest types	623.1	82.8	3,421.1	271.7	9,630.7	529.1	13,688.7	640.7	17,878.8	764.8	11,450.4	665.0	8,328.3	629.5

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50,000 cubic feet was estimated.

^a Includes all live trees ≥ 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 40—Net volume of live trees^a on forest land, by forest type group and stand age class, California, 2006-2015 (Continued)

Forest type group	Stand age class (years)											
	141-160		161-180		181-200		201+		Unknown		All classes	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>												
Softwoods:												
California mixed conifer	3,769.5	402.9	1,372.5	277.0	2,007.5	332.7	7,211.7	621.3	23.7	14.9	39,142.3	1,047.4
Douglas-fir	343.9	136.5	301.1	172.6	356.4	176.9	1,036.1	271.0	8.3	6.9	6,936.9	592.2
Fir / spruce / mtn. hemlock	1,049.8	236.1	691.3	197.6	760.0	236.6	3,063.7	465.9	3.9	3.3	11,816.8	755.3
Lodgepole pine	574.6	147.7	346.3	98.8	361.6	117.5	1,215.4	216.3	--	--	3,751.6	332.0
Pinyon / juniper woodlands	31.1	8.7	47.6	19.9	25.2	12.0	132.2	31.7	343.5	42.4	817.7	68.9
Ponderosa pine	272.3	87.1	26.8	17.4	32.5	19.8	230.0	77.6	5.4	5.3	5,675.4	349.7
Redwood	--	--	289.2	153.5	250.1	212.7	2,701.6	832.2	--	--	8,576.7	1,027.7
Western juniper	45.2	20.4	37.6	19.9	22.6	13.8	187.8	49.3	9.6	5.2	829.1	78.7
Western white pine	13.4	14.7	3.0	3.1	42.5	29.8	254.0	82.6	--	--	422.5	99.3
Other western softwoods	9.3	5.9	17.7	11.4	23.5	12.9	312.0	79.2	52.6	36.9	1,080.7	195.0
Total	6,109.1	513.5	3,133.1	422.5	3,881.8	504.4	16,344.6	1,171.2	447.0	59.1	79,049.7	1,508.6
Hardwoods:												
Alder / maple	32.9	33.2	--	--	--	--	--	--	49.1	25.6	896.9	169.2
Aspen / birch	--	--	--	--	--	--	16.5	15.1	3.3	2.8	87.7	35.1
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	63.8	35.1	74.1	36.1
Tanoak / laurel	792.0	240.6	65.6	48.3	88.3	56.3	474.1	145.6	521.6	106.2	8,355.8	557.1
Western oak	531.3	112.7	212.8	75.8	167.3	60.4	387.5	106.0	4,498.7	210.0	13,407.5	454.0
Woodland hardwoods	18.1	11.5	--	--	--	--	8.1	8.1	57.2	15.1	131.1	24.8
Other hardwoods	31.9	25.8	0.2	0.2	--	--	130.4	81.6	139.3	37.6	1,224.0	215.1
Total	1,406.3	268.1	278.6	89.8	255.6	82.6	1,016.5	198.3	5,333.0	239.5	24,177.0	725.8
Nonstocked	--	--	--	--	--	--	--	--	110.0	22.2	110.0	22.2
All forest types	7,515.4	575.5	3,411.6	431.2	4,137.5	510.8	17,361.1	1,181.8	5,890.1	247.2	103,336.7	1,424.1

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 cubic feet was estimated.

^a Includes all live trees ≥ 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 41—Net volume of dead trees^a on forest land, by forest type group and stand age class, California, 2006-2015

Forest type group	Stand age class (years)													
	1-20		21-40		41-60		61-80		81-100		101-120		121-140	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>														
Softwoods:														
California mixed conifer	114.6	41.7	19.6	6.7	116.6	23.8	309.7	39.9	653.1	61.5	522.0	63.0	407.5	57.3
Douglas-fir	8.9	3.8	33.7	12.2	100.7	23.4	45.9	13.8	55.2	25.4	3.8	2.9	44.3	24.4
Fir / spruce / mtn. hemlock	113.1	66.8	4.6	2.9	27.2	9.6	153.2	37.2	249.3	54.0	228.9	47.5	218.1	53.4
Lodgepole pine	1.4	1.5	0.1	0.1	1.0	0.9	34.5	11.2	26.8	9.9	41.5	14.4	36.9	20.3
Pinyon / juniper woodlands	0.5	0.4	--	--	--	--	4.6	2.1	6.4	2.5	5.1	2.6	2.7	1.6
Ponderosa pine	12.7	4.8	2.2	1.2	16.3	5.3	32.0	11.0	60.0	14.3	55.4	19.8	17.2	7.0
Redwood	75.4	56.3	57.7	33.0	186.7	75.0	47.6	15.6	71.5	22.0	14.0	7.8	13.5	5.8
Western juniper	0.1	0.1	--	--	4.2	2.0	5.1	1.7	7.9	3.3	4.9	2.6	2.6	1.4
Western white pine	--	--	0.7	0.7	6.3	3.8	3.9	3.2	9.8	8.8	6.0	5.7	3.3	3.2
Other western softwoods	2.4	2.5	0.2	0.1	44.8	29.5	11.5	7.4	11.1	10.0	15.8	10.1	0.9	1.0
Total	329.2	96.6	118.8	35.9	503.8	87.7	648.0	61.1	1,151.1	90.1	897.3	83.1	747.0	84.5
Hardwoods:														
Alder / maple	34.2	19.8	36.9	15.8	19.5	12.7	4.3	3.0	3.2	2.9	6.0	5.9	4.6	4.3
Aspen / birch	--	--	0.7	0.7	0.6	0.5	0.8	0.7	--	--	--	--	3.5	2.8
Elm / ash / cottonwood	--	--	0.3	0.3	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	59.8	32.1	78.5	28.2	112.2	21.1	46.3	10.0	107.3	36.0	19.9	8.7	19.3	14.1
Western oak	244.4	102.0	22.3	8.2	55.4	9.5	167.5	31.6	179.8	25.5	88.8	17.2	74.0	19.0
Woodland hardwoods	1.6	1.6	--	--	2.1	1.2	15.2	9.1	8.2	6.7	1.4	1.2	--	--
Other hardwoods	13.5	8.8	9.7	4.1	6.9	3.4	15.5	7.1	14.1	8.7	9.7	7.1	5.0	4.0
Total	353.5	109.2	148.5	33.6	196.7	26.5	249.6	35.1	312.5	45.3	125.8	21.4	106.3	24.5
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All forest types	682.7	145.7	267.3	49.0	700.5	91.1	897.6	70.0	1,463.6	100.1	1,023.1	85.5	853.3	87.7

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 cubic feet was estimated.

^a Includes all dead trees >= 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 41—Net volume of dead trees^a on forest land, by forest type group and stand age class, California, 2006–2015 (Continued)

Forest type group	Stand age class (years)											
	141-160		161-180		181-200		201+		Unknown		All classes	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>												
Softwoods:												
California mixed conifer	536.4	69.9	191.1	50.1	280.9	54.1	1,046.9	123.3	36.1	31.1	4,234.4	186.3
Douglas-fir	33.9	21.4	40.5	22.9	56.8	28.8	110.1	31.8	1.7	1.3	535.5	70.0
Fir / spruce / mtn. hemlock	174.5	53.2	65.5	22.3	145.3	46.3	450.5	81.9	--	--	1,830.3	157.4
Lodgepole pine	92.3	32.0	47.2	19.4	54.1	17.8	173.8	36.0	--	--	509.6	59.5
Pinyon / juniper woodlands	5.3	3.6	3.4	1.8	3.0	1.7	6.3	2.0	42.7	9.0	80.0	10.9
Ponderosa pine	16.5	7.1	2.5	1.8	5.1	5.5	25.8	10.5	0.4	0.3	246.2	32.1
Redwood	--	--	15.0	11.7	17.4	13.8	81.3	34.8	--	--	580.1	110.4
Western juniper	5.0	3.6	7.9	6.6	3.9	2.6	23.4	8.9	--	--	64.9	12.9
Western white pine	--	--	4.2	4.4	6.3	4.1	43.1	16.1	--	--	83.5	21.0
Other western softwoods	0.1	0.1	4.7	4.8	2.9	2.0	72.4	19.6	3.3	2.1	170.0	39.3
Total	863.9	95.7	382.1	64.2	575.6	80.1	2,033.6	158.8	84.2	32.4	8,334.7	268.2
Hardwoods:												
Alder / maple	3.5	3.6	--	--	--	--	--	--	4.1	3.0	116.3	29.9
Aspen / birch	--	--	--	--	--	--	1.3	1.2	--	--	6.8	3.2
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	2.8	2.5	3.2	2.6
Tanoak / laurel	41.3	16.4	4.1	3.9	2.5	2.2	115.3	58.4	44.6	14.3	651.3	88.1
Western oak	65.0	23.6	33.7	19.8	21.2	9.6	45.4	16.6	250.3	26.0	1,247.8	120.8
Woodland hardwoods	4.6	3.5	--	--	--	--	0.2	0.2	12.0	3.7	45.1	12.6
Other hardwoods	0.1	0.1	--	--	--	--	13.1	8.4	28.3	21.1	115.9	28.6
Total	114.5	29.1	37.8	20.2	23.7	9.9	175.3	61.3	342.1	36.8	2,186.4	154.1
Nonstocked	--	--	--	--	--	--	--	--	794.9	141.5	794.9	141.5
All forest types	978.4	99.8	419.9	67.3	599.3	80.5	2,208.9	167.8	1,221.2	149.2	11,316.0	318.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 cubic feet was estimated.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 42—Average net volume per acre of live trees^a on forest land, by forest type group and stand age class, California, 2006–2015

Forest type group	Stand age class (years)													
	1-20		21-40		41-60		61-80		81-100		101-120		121-140	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Cubic feet per acre</i>														
Softwoods:														
California mixed conifer	618.27	165.28	1,765.71	198.44	2,631.78	161.97	3,918.50	155.03	4,584.50	166.21	5,325.09	246.26	6,915.16	358.57
Douglas-fir	1,396.82	321.62	3,948.57	309.80	5,200.16	402.12	7,068.27	628.65	5,476.32	594.74	8,830.28	1,738.30	10,907.20	1,529.41
Fir / spruce / mtn. hemlock	322.58	143.55	951.77	374.41	2,957.68	377.13	3,959.21	459.94	5,006.65	305.73	6,030.47	538.21	5,971.41	639.89
Lodgepole pine	239.46	144.90	151.77	83.60	2,029.16	649.75	2,620.49	418.05	2,663.87	539.41	3,102.73	479.85	3,885.16	616.55
Pinyon / juniper woodlands	132.02	132.02	137.97	26.88	188.56	55.33	632.73	157.76	779.64	105.34	659.48	237.82	528.86	195.84
Ponderosa pine	264.05	54.57	1,172.33	148.95	2,650.63	328.15	2,192.71	183.45	2,966.57	176.01	3,232.46	310.18	3,940.59	697.86
Redwood	1,383.13	430.19	4,514.72	788.74	8,147.84	877.91	8,370.54	792.41	12,747.86	711.31	11,657.43	1,043.97	10,990.24	2,020.62
Western juniper	32.79	14.27	197.53	49.02	263.81	46.53	340.99	35.39	521.00	53.29	782.55	154.99	582.27	172.50
Western white pine	--	--	3,138.64	3,138.64	638.05	219.21	1,849.64	1,849.64	2,038.79	1,209.40	2,634.44	1,510.79	376.45	376.45
Other western softwoods	46.51	46.51	1,500.13	903.06	5,044.20	1,451.20	1,622.05	685.81	2,252.63	1,355.30	1,356.90	764.92	1,138.62	813.52
Total	596.18	89.51	2,144.51	153.54	3,284.73	176.89	3,404.59	133.01	4,041.80	133.59	4,593.70	189.85	5,805.22	289.71
Hardwoods:														
Alder / maple	1,115.58	483.17	4,216.42	684.36	4,831.48	823.40	5,828.04	802.23	4,935.98	314.48	10,059.16	10,059.16	3,505.92	3,505.92
Aspen / birch	--	--	458.15	293.10	730.23	555.22	767.23	17.51	--	--	--	--	4,380.28	4,380.28
Elm / ash / cottonwood	--	--	2,687.04	2,687.04	--	--	--	--	6,318.61	6,318.61	--	--	--	--
Tanoak / laurel	446.86	120.14	2,539.00	214.72	4,799.13	252.22	5,146.43	425.20	5,839.86	476.57	6,394.32	1,054.87	5,153.30	1,053.47
Western oak	273.52	55.40	668.71	123.62	1,377.05	110.11	1,845.80	116.58	2,080.07	127.86	2,521.35	259.00	2,426.69	301.83
Woodland hardwoods	--	--	15.33	15.33	350.87	25.17	605.24	127.55	473.52	136.84	779.94	779.94	--	--
Other hardwoods	35.36	18.55	1,190.61	576.02	3,174.99	732.74	3,309.09	822.76	2,918.41	1,045.55	6,381.18	2,438.82	5,791.01	2,857.49
Total	325.68	55.01	1,670.80	158.86	2,749.70	154.68	2,539.85	151.67	2,701.02	159.05	3,136.47	299.28	2,893.72	352.68
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All forest types	475.98	56.17	1,941.98	111.31	3,041.41	118.91	3,112.82	102.24	3,664.37	107.19	4,248.27	162.89	5,181.04	250.15

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 cubic feet per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all live trees ≥ 5 inches in diameter at breast height, consisting of growing stock, rough culm, and rotten culm tree classes.

Table 42—Average net volume per acre of live trees^a on forest land, by forest type group and stand age class, California, 2006-2015 (Continued)

Forest type group	Stand age class (years)											
	141-160		161-180		181-200		201+		Unknown		All classes	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Softwoods:</i>												
California mixed conifer	5,890.40	299.73	6,379.66	688.49	6,491.62	554.32	6,905.72	314.91	1,280.40	375.44	4,904.03	87.73
Douglas-fir	6,959.83	1,452.52	9,993.73	3,417.16	12,286.19	2,320.86	10,411.50	1,174.31	804.82	191.76	6,163.75	303.40
Fir / spruce / mtn. hemlock	5,972.93	744.02	7,556.14	1,127.17	8,161.61	1,354.91	9,191.73	623.27	1,637.58	1,637.58	5,754.62	223.07
Lodgepole pine	4,419.75	560.95	3,688.69	503.01	4,049.40	726.28	4,680.22	444.58	--	--	3,664.65	195.31
Pinyon / juniper woodlands	357.48	40.46	947.93	190.61	676.46	137.67	901.34	109.13	411.34	37.74	530.07	32.54
Ponderosa pine	3,111.60	653.34	1,639.58	337.81	2,552.17	83.57	2,969.70	572.89	1,435.74	1,435.74	2,394.62	99.17
Redwood	--	--	11,234.02	2,212.70	19,388.38	8,670.56	28,993.19	4,907.56	--	--	11,256.06	960.23
Western juniper	810.43	259.42	852.39	304.42	590.05	268.04	1,017.24	188.33	507.72	61.49	544.51	39.66
Western white pine	2,264.37	2,264.37	587.58	587.58	3,235.67	936.99	3,252.55	503.44	--	--	2,464.68	337.83
Other western softwoods	333.27	188.46	921.65	292.52	832.12	228.27	1,855.88	313.43	1,871.73	922.60	1,916.06	286.16
Total	4,851.07	244.28	5,297.80	476.78	5,853.57	509.97	6,577.25	359.27	487.42	51.56	4,135.06	69.31
<i>Hardwoods:</i>												
Alder / maple	8,858.11	8,858.11	--	--	--	--	--	--	2,743.05	800.66	4,093.99	414.63
Aspen / birch	--	--	--	--	--	--	2,490.03	2,490.03	289.68	233.80	1,092.96	349.30
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	2,406.17	696.88	2,475.82	618.81
Tanoak / laurel	10,123.68	1,115.24	5,793.40	399.60	3,619.44	1,318.52	6,758.06	789.56	2,571.46	312.95	4,517.89	178.65
Western oak	2,408.74	311.60	2,345.78	570.06	2,252.67	497.51	2,725.29	477.05	1,135.99	38.22	1,504.45	38.71
Woodland hardwoods	612.04	257.13					1,612.89	1,612.89	433.82	82.94	494.72	63.04
Other hardwoods	2,685.96	745.58	24.31	24.31			8,094.36	1,998.96	992.14	218.17	2,255.48	324.20
Total	4,087.40	557.93	2,561.84	562.12	2,590.61	520.16	4,234.15	503.13	1,187.50	39.64	2,031.99	48.82
Nonstocked	--	--	--	--	--	--	--	--	118.80	22.47	118.80	22.47
All forest types	4,687.21	226.57	4,872.88	422.17	5,430.94	459.73	6,370.82	331.64	929.85	31.34	3,235.19	45.07

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 cubic feet per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all live trees ≥ 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 43—Average net volume per acre of dead trees^a on forest land, by forest type group and stand age class, California, 2006-2015

Forest type group	Stand age class (years)													
	1-20		21-40		41-60		61-80		81-100		101-120		121-140	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Cubic feet per acre</i>														
Softwoods:														
California mixed conifer	416.13	140.96	83.49	25.09	180.65	32.95	245.66	27.11	391.53	29.28	498.94	48.03	652.81	66.62
Douglas-fir	128.62	39.88	148.85	48.06	379.18	67.52	252.22	59.42	628.69	260.03	104.15	68.61	1,118.69	422.88
Fir / spruce / mtn. hemlock	2,039.43	962.00	139.37	71.41	203.46	56.68	482.76	97.17	685.12	119.80	883.24	127.23	1,121.39	199.61
Lodgepole pine	85.12	85.12	5.44	5.44	63.11	63.11	340.37	76.48	249.61	72.10	420.88	100.54	402.22	190.54
Pinyon / juniper woodlands	44.09	44.09	--	--	1.52	1.52	46.55	17.45	56.59	18.59	69.02	29.40	43.57	20.71
Ponderosa pine	60.75	21.13	6.71	3.44	72.50	21.13	83.40	26.77	97.79	21.50	192.62	62.66	142.85	49.00
Redwood	1,199.68	799.90	733.93	370.48	1,260.38	439.53	395.28	102.67	541.84	128.11	328.87	127.76	295.86	67.11
Western juniper	7.92	7.92	--	--	22.13	9.54	13.81	4.40	22.78	8.95	30.68	14.81	40.20	17.42
Western white pine	--	--	139.01	139.01	283.87	92.59	429.15	429.15	721.69	616.41	482.65	266.73	470.24	470.24
Other western softwoods	165.59	129.82	4.88	3.04	776.60	439.50	159.43	88.50	184.46	152.74	389.47	214.45	67.64	67.64
Total	452.56	126.08	117.82	34.55	291.84	48.09	222.40	18.64	328.35	22.58	436.34	33.75	591.53	53.89
Hardwoods:														
Alder / maple	956.17	419.02	535.93	160.44	379.85	206.28	300.08	93.94	179.78	179.78	1,226.29	1,226.29	1,092.45	1,092.45
Aspen / birch	--	--	29.13	29.13	31.66	28.77	64.70	64.70	--	--	--	--	439.44	439.44
Elm / ash / cottonwood	--	--	112.13	112.13	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	546.40	263.15	307.11	99.06	221.43	33.89	166.28	26.85	513.23	145.14	250.23	83.21	825.78	412.93
Western oak	681.24	269.22	66.98	22.83	69.49	10.65	158.71	27.49	169.36	20.73	167.09	27.12	258.48	56.84
Woodland hardwoods	227.13	227.13	--	--	132.78	42.01	361.88	177.37	349.61	224.86	188.81	188.81	--	--
Other hardwoods	190.90	112.23	149.92	53.71	135.05	49.73	190.55	69.56	229.93	120.74	623.88	234.37	218.03	135.14
Total	607.70	176.83	197.10	40.87	136.59	16.36	168.24	21.31	227.57	29.43	196.91	27.67	308.58	60.15
Nonstocked														
All forest types	521.50	105.30	151.71	26.47	221.24	27.43	204.12	14.31	299.98	18.25	379.58	26.98	530.87	44.87

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 cubic feet per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 43—Average net volume per acre of dead trees^a on forest land, by forest type group and stand age class, California, 2006-2015 (Continued)

Forest type group	Stand age class (years)											
	141-160		161-180		181-200		201+		Unknown		All classes	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Cubic feet per acre</i>												
Softwoods:												
California mixed conifer	838.19	74.46	888.11	171.10	908.38	120.71	1,002.45	93.18	1,949.38	1,149.77	530.52	20.82
Douglas-fir	685.44	355.74	1,345.67	433.42	1,959.43	608.33	1,106.38	183.27	164.74	86.27	475.85	51.86
Fir / spruce / mtn. hemlock	992.88	236.46	715.78	166.84	1,560.05	328.16	1,351.62	160.55	--	--	891.32	61.73
Lodgepole pine	710.09	186.58	502.23	158.66	605.75	119.72	669.27	100.80	--	--	497.83	46.65
Pinyon / juniper woodlands	60.92	37.73	68.52	25.76	79.34	29.47	43.24	10.27	51.15	9.84	51.87	6.41
Ponderosa pine	188.89	65.33	154.74	113.39	403.00	362.76	333.43	98.92	94.13	94.13	103.89	12.61
Redwood	--	--	583.83	351.75	1,349.11	355.42	871.97	293.86	--	--	761.26	128.94
Western juniper	88.67	56.59	178.53	130.59	102.07	58.70	126.77	41.58	--	--	42.63	8.03
Western white pine	--	--	827.52	827.52	476.10	21.39	552.11	144.04	--	--	487.33	88.16
Other western softwoods	3.27	2.28	246.66	198.86	101.11	49.14	430.56	83.97	116.34	57.30	301.45	62.24
Total	686.04	59.79	646.06	85.18	868.00	90.47	818.35	51.77	91.80	34.53	435.98	13.48
Hardwoods:												
Alder / maple	950.58	950.58	--	--	--	--	--	--	226.36	147.45	530.81	107.57
Aspen / birch	--	--	--	--	--	--	198.56	198.56	--	--	85.12	35.44
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	107.27	75.71	106.21	67.20
Tanoak / laurel	527.81	149.31	361.56	220.75	103.38	74.50	1,643.61	689.09	220.05	58.59	352.14	43.40
Western oak	294.79	95.56	371.46	194.75	285.23	103.42	319.25	95.35	63.21	6.17	140.02	13.11
Woodland hardwoods	153.75	91.68	--	--	--	--	39.85	39.85	90.72	20.38	170.30	41.00
Other hardwoods	5.21	5.21	4.27	4.27	--	--	814.68	154.90	201.55	142.74	213.58	47.52
Total	332.70	72.73	347.84	165.69	240.27	82.15	730.28	229.01	76.18	7.74	183.76	12.41
Nonstocked	--	--	--	--	--	--	--	--	858.13	135.62	858.13	135.62
All forest types	610.22	50.35	599.74	77.13	786.69	81.68	810.59	50.97	192.79	22.79	354.27	10.01

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 cubic feet per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all dead trees >= 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 44—Average net volume per acre of live trees^a on forest land, by forest type group and stand size class, California, 2006-2015

Forest type group	Stand size class							
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		All classes	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Cubic feet per acre</i>								
Softwoods:								
California mixed conifer	5,180.95	89.58	1,137.65	170.24	359.16	48.27	4,904.03	87.73
Douglas-fir	6,779.20	314.19	1,677.13	284.67	932.80	311.02	6,163.75	303.40
Fir / spruce / mtn. hemlock	6,089.91	227.30	1,661.55	454.22	459.18	123.47	5,754.62	223.07
Lodgepole pine	3,941.01	202.68	1,482.24	504.34	387.47	104.81	3,664.65	195.31
Pinyon / juniper woodlands	588.17	35.17	144.41	48.39	68.22	27.98	530.07	32.54
Ponderosa pine	2,723.36	106.45	588.17	78.17	181.17	47.05	2,394.62	99.17
Redwood	12,187.48	1,009.95	963.60	237.99	403.89	110.32	11,256.06	960.23
Western juniper	619.60	45.55	210.77	47.34	137.52	39.24	544.51	39.66
Western white pine	3,136.73	355.71	--	--	472.52	140.87	2,464.68	337.83
Other western softwoods	2,997.90	415.66	468.82	124.41	69.81	20.45	1,916.06	286.16
Total	4,545.96	75.07	721.80	66.84	301.69	30.99	4,135.06	69.31
Hardwoods:								
Alder / maple	5,351.62	396.47	2,302.69	608.09	412.32	217.48	4,093.99	414.63
Aspen / birch	3,144.61	598.31	1,398.59	420.36	209.70	115.49	1,092.96	349.30
Elm / ash / cottonwood	2,527.86	626.42	--	--	--	--	2,475.82	618.81
Tanoak / laurel	5,590.34	204.78	2,662.79	194.76	607.46	128.06	4,517.89	178.65
Western oak	2,111.92	61.71	1,128.93	44.68	275.91	26.82	1,504.45	38.71
Woodland hardwoods	534.22	63.87	450.89	287.47	12.24	6.02	494.72	63.04
Other hardwoods	4,866.94	592.12	1,270.69	270.47	187.49	45.72	2,255.48	324.20
Total	2,931.34	76.69	1,286.13	47.40	301.31	25.97	2,031.99	48.82
Nonstocked	--	--	--	--	--	--	118.80	22.47
All forest types	4,104.98	57.57	1,185.32	41.56	301.46	19.89	3,235.19	45.07

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 cubic feet per acre was estimated; the average was calculated using a ratio.

^a Includes all live trees \geq 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 45—Average net cubic volume per acre of dead trees^a on forest land, by forest type group and stand size class, California, 2006-2015

Forest type group	Stand size class							
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		All classes	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Cubic feet per acre</i>								
Softwoods:								
California mixed conifer	552.38	21.82	146.84	38.88	205.44	71.24	530.52	20.82
Douglas-fir	493.31	54.70	52.04	24.71	711.72	386.41	475.85	51.86
Fir / spruce / mtn. hemlock	866.99	56.49	735.80	398.69	1,382.30	605.64	891.32	61.73
Lodgepole pine	538.25	50.05	44.37	22.16	92.40	42.41	497.83	46.65
Pinyon / juniper woodlands	51.57	6.29	14.62	5.58	113.45	61.78	51.87	6.41
Ponderosa pine	115.34	14.44	22.44	9.64	45.43	22.27	103.89	12.61
Redwood	809.70	138.69	337.55	101.15	119.09	90.44	761.26	128.94
Western juniper	49.40	9.55	18.15	7.86	0.83	0.83	42.63	8.03
Western white pine	571.96	111.38	--	--	242.58	77.53	487.33	88.16
Other western softwoods	444.02	93.80	147.87	88.09	25.38	20.13	301.45	62.24
Total	463.61	14.19	93.36	21.74	257.79	69.45	435.98	13.48
Hardwoods:								
Alder / maple	542.17	109.45	212.40	162.36	987.71	519.80	530.81	107.57
Aspen / birch	332.35	63.29	63.36	39.71	2.56	1.55	85.12	35.44
Elm / ash / cottonwood	108.44	68.39	--	--	--	--	106.21	67.20
Tanoak / laurel	341.79	38.75	200.07	80.43	676.92	275.22	352.14	43.40
Western oak	152.69	11.18	71.90	6.53	259.64	80.00	140.02	13.11
Woodland hardwoods	148.73	32.32	367.27	278.66	144.44	111.48	170.30	41.00
Other hardwoods	297.01	61.13	71.42	27.98	220.77	106.58	213.58	47.52
Total	204.72	11.89	87.50	9.92	306.03	67.99	183.76	12.41
Nonstocked	--	--	--	--	--	--	858.13	135.62
All forest types	392.90	10.78	88.55	9.03	287.25	49.38	354.27	10.01

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 cubic feet per acre was estimated; the average was calculated using a ratio.

^aIncludes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 46—Average net volume per acre of live trees^a on forest land, by forest type group and ownership group, California, 2006-2015

Forest type group	Ownership Group													
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All private		All owners	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Cubic feet per acre</i>														
Softwoods:														
California mixed conifer	5,420.11	113.06	6,125.16	397.54	6,920.23	1,102.26	3,107.20	137.82	3,834.17	231.25	3,286.83	118.74	4,904.03	87.73
Douglas-fir	7,704.69	693.49	7,748.67	1,732.49	7,972.23	1,183.25	4,760.49	335.98	5,534.48	472.90	5,140.65	290.64	6,163.75	303.40
Fir / spruce / mtn.hemlock	5,967.40	265.83	6,912.49	638.29	4,620.39	496.23	3,639.72	416.26	3,419.47	738.97	3,587.46	361.52	5,754.62	223.07
Lodgepole pine	3,559.06	224.48	4,275.02	490.61	1,966.91	898.03	2,168.61	373.93	3,773.74	619.83	3,027.16	446.92	3,664.65	195.31
Pinyon / juniper woodlands	625.46	52.52	477.95	46.50	606.47	198.19	266.55	78.94	274.41	53.83	272.45	44.93	530.07	32.54
Ponderosa pine	2,469.07	134.49	2,000.58	363.56	1,883.98	864.69	1,821.54	180.22	2,904.35	237.88	2,311.80	151.14	2,394.62	99.17
Redwood	18,332.52	4,815.72	28,710.13	4,376.16	22,105.03	5,132.32	7,034.27	551.39	10,867.07	874.85	8,434.98	505.88	11,256.06	960.23
Western juniper	689.69	67.40	386.43	49.97	859.63	839.12	294.82	47.19	414.56	49.77	391.83	41.73	544.51	39.66
Western white pine	2,469.53	361.67	2,405.15	630.32	--	--	--	--	--	--	--	--	2,464.68	337.83
Other western softwoods	1,139.00	165.25	1,302.29	343.35	1,278.18	1,100.52	6,253.57	1,852.32	7,294.36	1,920.91	6,760.78	1,327.94	1,916.06	286.16
Total	4,288.66	76.28	3,490.92	240.81	8,779.74	1,617.80	3,547.25	127.87	4,005.91	213.48	3,726.29	111.12	4,135.06	69.31
Hardwoods:														
Alder / maple	2,754.58	958.11	5,493.94	841.15	7,378.89	442.12	4,368.35	713.11	3,131.10	521.03	3,877.24	491.47	4,093.99	414.63
Aspen / birch	1,177.45	456.07	23.36	3.50	1,838.50	1,838.50	2,806.64	2,806.64	787.57	787.57	1,353.29	513.25	1,092.96	349.30
Elm / ash / cottonwood	2,626.34	2,626.34	--	--	2,258.94	728.77	1,417.05	1,417.05	2,751.92	1,112.23	2,621.81	1,040.47	2,475.82	618.81
Tanoak / laurel	4,501.25	414.18	4,313.90	932.41	5,776.50	840.35	3,910.90	265.84	4,731.72	274.87	4,371.13	195.79	4,517.89	178.65
Western oak	1,893.21	96.10	1,251.02	129.11	1,476.60	135.99	1,699.27	113.46	1,275.06	43.50	1,354.16	41.23	1,504.45	38.71
Woodland hardwoods	540.42	83.36	408.88	81.43	954.81	427.49	254.65	254.65	238.77	148.44	240.90	128.50	494.72	63.04
Other hardwoods	1,826.45	555.55	1,375.98	679.05	5,244.67	1,482.95	2,501.69	612.17	2,161.77	395.35	2,250.27	333.64	2,255.48	324.20
Total	2,160.76	102.52	1,630.50	165.91	2,755.23	284.27	2,550.98	131.14	1,757.19	63.23	1,947.79	56.83	2,031.99	48.82
Nonstocked	115.87	29.96	27.46	13.41	--	--	185.61	49.36	79.38	39.38	161.96	39.56	118.80	22.47
All forest types	3,647.74	61.12	2,897.38	176.10	4,899.24	608.22	3,101.63	92.90	2,367.26	76.49	2,664.80	56.01	3,235.19	45.07

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 cubic feet per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^aIncludes all live trees ≥ 5 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 47—Average net volume per acre of dead trees^a on forest land, by forest type group and ownership group, California, 2006-2015

Forest type group	Ownership Group													
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All private		All owners	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Cubic feet per acre</i>														
Softwoods:														
California mixed conifer	631.35	27.35	953.50	122.90	420.06	153.04	194.97	19.46	182.74	39.26	191.95	17.57	530.52	20.82
Douglas-fir	852.65	131.53	460.64	197.33	522.99	273.04	285.25	55.57	306.14	65.82	295.51	43.01	475.85	51.86
Fir / spruce / mtn. hemlock	906.53	67.36	1,561.89	287.56	608.47	150.68	256.41	91.51	360.36	118.43	281.08	75.58	891.32	61.73
Lodgepole pine	466.78	52.48	565.51	110.39	459.27	207.52	866.21	435.05	374.82	77.02	603.37	218.86	497.83	46.65
Pinyon / juniper woodlands	70.79	11.89	35.26	6.31	38.95	17.23	18.89	11.09	34.06	13.97	30.27	10.94	51.87	6.41
Ponderosa pine	128.92	18.60	160.56	108.28	26.79	34.28	45.31	10.63	66.67	16.65	54.98	9.53	103.89	12.61
Redwood	20.50	20.50	3,249.61	1,648.34	852.68	260.06	698.00	172.85	561.58	117.79	648.14	118.00	761.26	128.94
Western juniper	64.15	14.71	20.96	7.65	108.36	108.36	23.90	13.37	16.12	5.01	17.59	4.80	42.63	8.03
Western white pine	475.95	93.71	626.80	166.46	--	--	--	--	--	--	--	--	487.33	88.16
Other western softwoods	219.87	47.07	220.28	82.83	134.06	85.74	--	--	705.15	280.78	526.45	244.08	239.40	42.39
Total	510.58	17.50	518.86	56.37	444.41	88.41	260.78	27.91	204.06	22.82	238.64	19.21	435.98	13.48
Hardwoods:														
Alder / maple	511.18	170.68	601.77	249.77	120.67	16.66	729.00	225.21	244.13	96.00	536.54	149.02	530.81	107.57
Aspen / birch	111.88	45.84	--	--	411.70	411.70	--	--	--	--	--	--	85.12	35.44
Elm / ash / cottonwood	53.33	53.33	--	--	16.84	16.84	--	--	187.02	106.59	168.79	100.58	106.21	67.20
Tanoak / laurel	583.55	138.83	792.76	336.19	257.99	78.59	331.14	72.00	195.39	30.21	255.03	36.18	352.14	43.40
Western oak	311.03	43.91	142.06	28.72	91.89	24.95	95.28	13.54	56.06	4.62	63.37	4.54	140.02	13.11
Woodland hardwoods	241.20	72.79	108.98	32.21	111.48	32.47	26.18	26.18	57.14	36.87	52.98	31.81	170.30	41.00
Other hardwoods	349.48	104.15	154.48	139.33	118.19	75.68	118.19	36.38	116.56	40.09	116.99	31.13	213.58	47.52
Total	343.49	37.80	213.83	41.25	131.88	25.46	200.60	28.08	77.87	5.86	107.34	8.17	183.76	12.41
Nonstocked	1,173.94	190.48	103.59	47.66	2,224.82	2,224.82	184.87	70.78	56.43	22.13	156.27	56.10	858.13	135.62
All forest types	500.73	17.24	425.08	41.10	260.13	39.71	238.18	20.09	112.59	7.68	163.48	9.35	354.27	10.01

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 cubic feet per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 48—Net volume of growing stock trees^a on timberland, by species group and diameter class, California, 2006-2015

Species group	Diameter class (inches)																	
	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			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>																		
Softwoods:																		
Douglas-fir	376.8	16.7	603.5	27.6	772.9	35.5	922.7	43.7	1,002.0	50.5	1,039.7	57.1	1,129.8	65.3	1,089.3	71.6		
Incense-cedar	112.6	7.0	147.2	9.2	185.5	12.3	204.1	15.0	177.4	14.5	220.4	18.6	218.5	20.4	223.3	22.2		
Lodgepole pine	38.7	9.6	50.2	9.7	77.3	12.5	86.9	13.2	102.6	15.8	78.4	14.3	98.9	18.8	119.1	23.1		
Ponderosa and Jeffrey pines	154.7	8.1	281.6	14.9	429.4	23.1	599.4	31.3	690.3	37.6	790.6	44.1	844.6	52.7	859.8	59.7		
Redwood	45.1	4.6	93.8	9.5	135.1	14.8	194.6	21.0	226.2	23.0	265.6	28.0	285.6	31.2	334.1	43.8		
Sitka spruce	0.9	0.5	3.2	1.8	4.0	2.1	5.5	4.6	9.9	5.7	14.2	9.8	20.9	14.4	7.9	5.7		
Sugar pine	17.5	1.9	30.0	3.1	45.5	5.0	62.4	6.8	65.3	8.3	85.6	11.3	107.9	15.0	112.1	17.1		
True fir	260.5	12.3	410.6	19.6	625.4	30.8	747.2	36.9	913.8	48.5	1,014.4	58.1	1,066.9	66.8	1,070.7	67.1		
Western hemlock	4.1	2.2	5.1	1.9	7.3	3.5	10.0	4.8	15.0	7.3	10.0	6.0	13.7	6.7	7.1	4.9		
Western juniper	4.4	0.7	5.7	1.0	11.6	1.8	10.7	2.3	13.9	3.0	7.9	2.4	14.5	3.8	9.3	3.0		
Western white pine	2.0	0.5	3.6	0.9	4.9	1.4	5.3	1.9	9.2	2.9	6.7	2.8	19.1	5.3	22.7	7.2		
Other western softwoods	14.3	3.9	29.3	6.2	37.3	6.6	37.0	7.6	46.0	10.0	57.2	13.7	73.9	19.0	76.7	24.3		
Total	1,031.5	26.3	1,663.9	40.7	2,336.1	56.4	2,885.9	70.0	3,271.6	83.4	3,590.7	98.9	3,894.3	117.0	3,931.9	127.4		
Hardwoods:																		
Cottonwood and aspen	4.0	2.1	3.0	1.4	3.7	1.7	2.4	1.2	4.3	2.5	4.0	2.7	1.2	1.2	5.8	3.6		
Oak	309.6	18.3	433.6	25.5	460.5	25.8	469.9	29.1	381.9	27.9	365.0	28.3	316.0	30.1	275.0	28.3		
Red alder	13.9	2.8	33.5	6.1	52.0	10.3	69.9	15.7	39.8	11.3	32.2	10.9	32.2	13.6	23.8	8.9		
Tanoak	193.5	13.7	266.8	19.0	318.5	24.7	330.6	27.0	280.8	24.9	250.0	27.3	187.0	24.4	224.3	28.7		
Other western hardwoods	141.2	9.8	191.3	14.2	222.5	16.9	247.3	20.8	250.7	23.1	188.4	20.1	207.3	24.8	129.4	21.1		
Total	662.1	25.7	928.1	36.5	1,057.2	42.1	1,120.1	49.7	957.4	47.8	839.6	46.3	743.8	48.8	658.3	48.7		
All species groups	1,693.6	38.4	2,592.1	55.7	3,393.3	71.4	4,006.0	85.5	4,229.0	95.8	4,430.3	108.1	4,638.1	126.4	4,590.2	135.4		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50,000 cubic feet was estimated.

^a Includes live growing stock trees of commercial species that are ≥ 5 inches in diameter at breast height; excludes trees that are classified as rough or rotten cull.

Table 48–Net volume of growing stock trees^a on timberland, by species group and diameter class, California 2006-2015 (Continued)

Species group	Diameter class (inches)																	
	21.0-22.9		23.0-24.9		25.0-26.9		27.0-28.9		29.0-30.9		31.0-32.9		33.0-34.9		35.0-36.9			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>																		
Softwoods:																		
Douglas-fir	878.1	65.9	827.1	57.4	881.5	43.8	786.0	42.6	821.4	48.0	731.5	43.6	692.3	47.6	641.4	49.4		
Incense-cedar	196.4	25.0	174.6	18.9	207.4	16.5	165.9	13.9	150.3	14.4	141.2	14.1	144.5	14.7	109.1	13.1		
Lodgepole pine	78.0	18.5	82.3	18.2	64.6	12.6	40.9	8.9	36.9	10.1	28.7	9.1	14.8	4.8	15.3	5.1		
Ponderosa and Jeffrey pines	867.5	63.4	699.7	49.4	654.1	37.7	668.9	39.8	600.0	38.1	547.9	40.2	454.5	37.8	399.4	40.2		
Redwood	335.0	44.4	365.4	45.0	405.7	45.4	386.4	39.7	339.4	39.2	322.1	40.2	289.6	37.4	249.4	34.0		
Sitka spruce	40.1	27.3	6.3	3.5	11.9	5.5	7.3	3.7	11.4	5.3	6.9	3.7	7.8	4.5	5.9	6.0		
Sugar pine	127.5	20.5	145.5	19.8	168.1	14.7	201.4	17.8	203.3	19.5	150.4	16.6	205.9	21.3	168.4	21.8		
True fir	963.7	69.3	918.7	61.8	831.2	48.0	864.9	51.7	739.4	50.1	733.0	52.3	529.9	41.9	509.5	43.3		
Western hemlock	16.9	12.2	0.7	0.7	5.0	2.2	3.7	3.0	2.4	1.7	--	--	--	--	--	--		
Western juniper	4.7	2.6	6.2	2.7	4.6	1.2	4.0	1.5	1.7	0.9	2.9	1.1	0.9	0.6	3.1	1.7		
Western white pine	24.7	8.5	15.8	4.8	18.3	4.5	15.2	4.6	23.4	5.6	17.0	5.3	13.8	4.7	12.9	4.7		
Other western softwoods	33.6	10.3	35.4	11.2	45.2	12.1	41.9	11.5	21.2	7.3	24.4	11.0	24.2	8.3	27.3	8.7		
Total	3,566.1	132.5	3,277.8	112.6	3,297.5	92.9	3,186.5	90.6	2,950.8	93.9	2,705.9	92.9	2,378.1	87.8	2,141.7	90.7		
Hardwoods:																		
Cottonwood and aspen	2.6	2.6	1.9	1.3	1.8	1.4	4.0	1.8	2.4	1.5	3.9	2.1	0.6	0.6	0.9	0.9		
Oak	228.4	29.2	204.8	25.4	154.0	13.8	118.7	12.3	84.6	11.1	88.1	12.3	61.7	12.8	28.1	7.0		
Red alder	6.3	4.2	15.4	8.3	3.0	1.6	1.5	1.5	4.1	2.0	3.1	2.1	--	--	--	--		
Tanoak	182.1	30.0	164.1	30.3	88.6	11.9	76.2	11.9	45.8	8.7	27.3	6.4	17.3	5.4	17.4	6.5		
Other western hardwoods	125.6	23.3	93.1	16.9	61.2	7.9	50.4	7.7	43.4	7.5	36.3	9.4	21.7	6.6	26.9	8.8		
Total	545.0	49.1	479.4	44.3	308.6	20.7	250.9	19.7	180.3	17.1	158.6	17.0	101.4	15.4	73.2	13.3		
All species groups	4,111.2	141.1	3,757.2	120.5	3,606.1	95.2	3,437.4	93.1	3,131.2	95.6	2,864.5	94.8	2,479.5	89.7	2,214.9	92.0		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 cubic feet was estimated.

^a Includes live growing stock trees of commercial species that are ≥ 5 inches in diameter at breast height; excludes trees that are classified as rough or rotten cull.

Table 48--Net volume of growing stock trees^a on timberland, by species group and diameter class, California 2006-2015 (Continued)

Species group	Diameter class (inches)																		All classes	
	37.0-38.9		39.0-40.9		41.0-42.9		43.0-44.9		45.0-46.9		47.0-48.9		49.0 +							
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Softwoods:</i>																				
Douglas-fir	654.2	50.6	633.0	52.0	446.9	46.6	514.8	50.6	465.6	49.4	382.9	48.2	2,289.0	219.5	18,582.5	648.5				
Incense-cedar	115.3	17.2	86.4	13.9	88.1	13.6	71.8	12.2	55.8	12.1	41.8	11.2	270.1	43.9	3,507.8	184.1				
Lodgepole pine	14.2	6.1	11.1	5.1	4.0	3.5	5.3	6.8	11.9	5.9	--	--	--	--	1,060.0	129.7				
Ponderosa and Jeffrey pines	264.7	29.3	340.9	34.0	240.5	29.6	155.1	24.6	144.0	26.7	83.0	19.8	372.5	70.7	11,143.1	378.2				
Redwood	241.7	37.5	198.0	32.4	133.2	25.7	162.9	31.2	114.8	23.8	75.1	18.2	684.6	146.3	5,883.0	485.8				
Sitka spruce	2.1	2.0	2.8	2.8	11.4	6.2	9.5	5.3	5.4	4.7	--	--	13.1	11.5	208.4	79.5				
Sugar pine	133.8	18.1	109.2	18.1	117.3	19.5	84.3	17.5	101.8	19.0	95.7	21.1	470.3	71.8	3,009.1	167.4				
True fir	450.1	41.1	417.0	47.3	320.1	39.3	257.6	33.0	232.7	36.1	198.4	30.4	548.2	90.8	14,623.8	601.8				
Western hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--	101.0	42.0				
Western juniper	3.3	2.2	0.8	0.8	0.5	0.6	0.5	0.5	--	--	--	--	4.3	2.6	115.3	16.1				
Western white pine	22.7	6.5	12.5	5.2	8.6	3.9	13.4	5.3	8.6	4.5	7.2	4.9	33.6	11.9	321.4	46.6				
Other western softwoods	20.0	7.9	6.8	4.9	7.3	5.0	3.7	3.8	7.0	4.7	--	--	15.3	7.4	685.0	118.0				
Total	1,922.0	87.8	1,818.4	87.1	1,378.0	77.3	1,278.9	77.0	1,147.4	75.7	884.2	67.9	4,701.0	323.2	59,240.3	1,060.6				
<i>Hardwoods:</i>																				
Cottonwood and aspen	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	46.4	11.9	
Oak	35.9	9.3	23.3	7.8	19.1	8.8	14.0	7.2	12.3	6.5	8.3	5.5	19.7	8.7	4,112.6	178.0				
Red alder	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	330.7	63.8	
Tanoak	10.6	5.9	3.4	2.5	14.1	6.1	--	--	1.6	1.5	7.2	5.0	14.3	9.3	2,721.6	187.1				
Other western hardwoods	18.7	6.2	11.5	5.0	15.1	7.2	11.5	5.2	9.9	5.4	8.7	5.9	14.8	5.9	2,126.9	127.9				
Total	65.2	12.6	38.2	9.5	48.3	13.3	25.5	8.9	23.8	9.1	24.2	9.5	48.9	14.0	9,338.1	320.0				
All species groups	1,987.2	89.3	1,856.6	87.8	1,426.3	78.6	1,304.4	77.9	1,171.2	76.3	908.4	68.9	4,749.9	323.4	68,578.5	1,132.8				

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 cubic feet was estimated.

^a Includes live growing stock trees of commercial species that are >= 5 inches in diameter at breast height; excludes trees that are classified as rough or rotten cull.

Table 49—Net volume of growing stock trees^a on timberland, by species group and ownership group, California, 2006–2015

Species group	Ownership Group													
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All private		All owners	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>														
Softwoods:														
Douglas-fir	10,263.8	523.5	546.5	166.2	240.8	78.8	3,907.0	245.1	3,624.5	280.0	7,531.5	342.4	18,582.5	648.5
Incense-cedar	2,328.4	156.7	20.9	16.9	25.3	13.3	691.0	71.7	442.2	65.4	1,133.2	94.8	3,507.8	184.1
Lodgepole pine	821.8	111.5	--	--	8.0	6.9	87.2	32.0	143.1	57.9	230.3	66.1	1,060.0	129.7
Ponderosa and Jeffrey pines	7,477.1	317.1	159.7	41.5	71.2	32.1	1,746.6	136.6	1,688.6	158.9	3,435.2	201.2	11,143.1	378.2
Redwood	17.2	17.9	--	--	385.4	143.5	2,901.2	314.4	2,579.3	359.9	5,480.5	462.5	5,883.0	485.8
Sitka spruce	--	--	--	--	--	--	139.0	67.4	69.4	42.3	208.4	79.5	208.4	79.5
Sugar pine	2,158.5	148.9	35.8	15.9	14.7	11.7	620.9	64.6	179.2	39.0	800.1	74.3	3,009.1	167.4
True fir	11,719.1	561.2	84.5	49.2	132.4	69.8	2,029.2	175.5	658.5	106.9	2,687.8	200.9	14,623.8	601.8
Western hemlock	1.1	1.1	--	--	--	--	85.3	41.2	14.6	8.4	100.0	42.0	101.0	42.0
Western juniper	86.6	14.2	8.5	4.3	--	--	7.0	2.6	13.2	5.9	20.2	6.4	115.3	16.1
Western white pine	304.1	46.1	--	--	--	--	15.7	6.5	1.5	1.5	17.2	6.7	321.4	46.6
Other western softwoods	335.5	86.1	12.2	5.8	16.4	8.3	102.0	33.0	218.8	69.6	320.8	77.0	685.0	118.0
Total	35,513.2	810.8	868.1	193.4	894.1	207.5	12,332.2	531.9	9,632.8	555.8	21,965.0	652.2	59,240.3	1,060.6
Hardwoods:														
Cottonwood and aspen	21.3	8.6	4.3	3.1	--	--	8.9	5.6	11.9	5.1	20.8	7.6	46.4	11.9
Oak	1,946.5	123.6	119.6	26.6	58.9	24.7	688.6	73.4	1,299.1	104.3	1,987.7	124.1	4,112.6	178.0
Red alder	27.8	12.3	2.9	2.0	--	--	254.2	60.0	45.9	17.9	300.1	62.5	330.7	63.8
Tanoak	443.3	73.2	55.6	33.8	63.6	31.9	984.5	109.7	1,174.6	132.7	2,159.1	165.9	2,721.6	187.1
Other western hardwoods	691.4	75.7	67.0	17.9	37.8	18.8	395.7	51.3	935.0	89.2	1,330.7	100.3	2,126.9	127.9
Total	3,130.2	185.1	249.3	55.9	160.3	50.9	2,331.8	167.4	3,466.5	216.5	5,798.3	253.2	9,338.1	320.0
All species groups	38,643.3	837.9	1,117.4	219.4	1,054.4	236.8	14,664.0	594.8	13,099.3	667.2	27,763.3	730.2	68,578.5	1,132.8

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 cubic feet was estimated.

^a Includes live growing stock trees of commercial species that are ≥ 5 inches in diameter at breast height; excludes trees that are classified as rough or rotten cull.

Table 50—Net cubic volume of sawtimber-sized trees^a on timberland, by species group and ownership group, California, 2006-2015

Species group	Ownership Group													
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All private		All owners	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>														
Softwoods:														
Douglas-fir	9,733.1	508.7	507.5	161.4	230.8	76.6	3,480.2	227.9	3,316.5	266.1	6,796.7	324.5	17,268.1	626.3
Incense-cedar	2,150.9	149.7	18.6	16.0	23.4	12.6	595.9	65.0	388.3	60.7	984.3	87.0	3,177.2	174.0
Lodgepole pine	745.2	105.2	--	--	7.5	6.5	67.9	25.7	123.1	51.6	191.0	57.6	943.7	120.0
Ponderosa and Jeffrey pines	7,106.2	308.9	153.5	40.1	67.7	30.9	1,600.4	129.1	1,576.3	152.4	3,176.7	192.4	10,504.1	366.5
Redwood	16.7	17.4	--	--	379.8	141.7	2,747.1	304.6	2,519.0	353.9	5,266.0	452.3	5,662.5	475.5
Sitka spruce	--	--	--	--	--	--	133.7	65.4	67.8	41.2	201.6	77.3	201.6	77.3
Sugar pine	2,110.2	146.7	35.1	15.6	14.6	11.6	596.1	63.3	171.5	38.4	767.6	72.9	2,927.5	164.9
True fir	11,055.4	541.6	76.3	46.6	126.8	66.9	1,813.9	163.3	609.0	101.6	2,422.9	188.3	13,681.4	579.0
Western hemlock	1.1	1.1	--	--	--	--	75.4	38.6	12.5	7.6	87.9	39.4	89.0	39.4
Western juniper	76.5	13.2	7.4	3.7	--	--	5.9	2.3	11.8	5.6	17.7	6.1	101.6	15.0
Western white pine	296.2	45.3	--	--	--	--	14.9	6.4	1.1	1.1	16.0	6.5	312.2	45.8
Other western softwoods	310.6	84.0	10.6	5.2	15.7	8.2	83.1	29.2	206.9	66.2	290.0	72.3	626.9	113.3
Total	33,601.9	791.3	809.0	185.7	866.3	203.0	11,214.5	506.0	9,003.8	537.6	20,218.3	634.3	55,495.6	1,035.0
Hardwoods:														
Cottonwood and aspen	14.6	6.9	3.7	2.9	--	--	4.4	3.6	11.2	4.9	15.5	6.1	33.8	9.7
Oak	659.1	50.1	30.4	7.7	29.8	14.6	241.9	30.1	520.0	46.3	761.8	54.1	1,481.1	75.2
Red alder	16.5	7.8	1.0	0.8	--	--	159.2	44.4	27.7	11.7	186.9	45.9	204.4	46.6
Tanoak	303.6	53.1	46.9	31.0	43.1	25.5	611.7	77.0	845.0	107.4	1,456.7	128.4	1,850.4	144.7
Other western hardwoods	323.7	45.2	26.0	9.3	18.2	11.4	176.2	26.3	458.7	51.2	634.9	56.5	1,002.7	73.7
Total	1,317.6	97.9	107.9	36.2	91.1	34.8	1,193.3	103.6	1,862.6	139.8	3,055.9	164.4	4,572.5	196.8
All species groups	34,919.5	801.6	916.9	197.8	957.4	220.1	12,407.9	537.1	10,866.4	599.7	23,274.2	675.7	60,068.1	1,070.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 cubic feet was estimated.

^a Includes sawtimber-sized trees that are ≥ 9 inches diameter at breast height for softwood species and ≥ 11 inches diameter at breast height for hardwood species.

Table 51—Net boardfoot volume (Scribner rule) of sawtimber trees^a on timberland, by county and ownership group, California, 2006-2015

County	Ownership group									
	National forest		Other federal		State and local government		Private		All owners	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million board feet, Scribner rule</i>										
Alameda	--	--	--	--	186.0	172.7	--	--	186.0	172.7
Alpine	1,737.5	492.8	--	--	--	--	68.1	66.5	1,805.5	497.2
Amador	786.3	395.8	33.8	35.6	--	--	781.5	380.5	1,601.6	615.0
Butte	5,366.0	1,262.9	213.6	228.8	--	--	3,206.8	662.7	8,786.4	1,447.4
Calaveras	1,592.3	635.5	--	--	--	--	3,452.3	844.0	5,044.6	1,058.8
Colusa	216.4	148.4	--	--	--	--	128.5	115.8	344.9	188.2
Del Norte	2,491.1	834.2	--	--	--	--	2,901.9	648.1	5,393.1	1,056.3
El Dorado	13,976.5	2,015.8	204.8	175.8	43.6	33.8	2,856.8	639.6	17,081.6	2,124.5
Fresno	7,589.3	1,457.7	--	--	--	--	346.2	190.1	7,935.5	1,470.1
Glenn	1,879.8	680.0	--	--	--	--	--	--	1,879.8	680.0
Humboldt	7,272.9	1,554.8	1,818.5	1,027.0	120.9	135.1	27,415.6	2,477.3	36,627.9	3,101.7
Inyo	111.9	115.9	--	--	33.4	29.1	--	--	145.3	119.5
Kern	1,180.1	337.9	0.4	0.5	--	--	231.9	122.0	1,412.5	359.3
Lake	1,639.4	484.6	159.6	117.0	89.4	99.5	455.6	198.7	2,344.1	558.1
Lassen	5,952.2	855.0	152.8	81.5	--	--	2,727.5	433.1	8,832.5	963.3
Los Angeles	111.4	94.1	--	--	--	--	--	--	111.4	94.1
Madera	6,846.9	1,445.6	--	--	--	--	470.5	295.0	7,317.3	1,475.4
Marin	--	--	--	--	411.3	420.8	645.8	604.0	1,057.2	736.1
Mariposa	1,460.4	604.4	10.7	10.2	--	--	860.5	390.3	2,331.6	719.5
Mendocino	1,709.9	598.3	48.9	40.5	2,371.8	965.0	22,549.2	2,239.7	26,679.7	2,527.5
Modoc	4,002.7	613.2	10.2	9.9	--	--	1,344.7	268.8	5,357.7	678.1
Mono	1,872.5	417.5	19.9	24.4	--	--	86.7	83.3	1,979.1	426.5
Monterey	--	--	--	--	--	--	1,045.7	689.5	1,045.7	689.5
Napa	--	--	--	--	--	--	1,195.3	462.4	1,195.3	462.4
Nevada	3,544.2	911.1	127.3	91.4	253.9	192.3	2,743.8	693.9	6,669.1	1,164.5
Placer	7,839.3	1,524.8	165.1	148.5	39.4	33.8	1,863.6	526.9	9,907.4	1,621.0
Plumas	21,101.6	2,144.3	35.3	28.2	145.0	150.0	5,111.0	855.7	26,392.9	2,315.1
Riverside	--	--	--	--	--	--	111.8	109.3	111.8	109.3
San Bernardino	661.1	271.8	--	--	--	--	244.5	163.2	905.6	317.0
San Diego	--	--	--	--	--	--	4.1	3.9	4.1	3.9
San Mateo	--	--	--	--	--	--	2,352.7	991.7	2,352.7	991.7
Santa Barbara	56.8	53.0	--	--	--	--	0.2	0.2	57.0	53.0
Santa Clara	--	--	--	--	--	--	168.3	139.3	168.3	139.3
Santa Cruz	--	--	--	--	598.5	478.9	5,612.2	1,413.8	6,210.7	1,516.8
Shasta	9,374.9	1,372.1	907.8	423.2	534.6	391.3	7,469.7	895.2	18,287.1	1,747.8
Sierra	8,781.0	1,475.2	--	--	--	--	1,492.7	500.1	10,273.7	1,570.7
Siskiyou	35,199.8	2,906.1	121.5	113.7	160.9	135.1	7,048.6	892.2	42,530.8	3,049.4
Sonoma	--	--	22.0	17.4	--	--	7,973.3	1,816.2	7,995.3	1,816.2
Tehama	6,593.7	1,292.3	--	--	--	--	2,806.6	633.5	9,400.3	1,455.9
Trinity	22,033.3	2,504.3	1,149.1	454.7	--	--	4,140.4	744.0	27,322.8	2,651.9
Tulare	2,945.5	694.8	--	--	366.5	351.1	421.9	239.5	3,733.8	814.5
Tuolumne	9,459.7	1,551.5	--	--	--	--	1,764.9	500.2	11,224.6	1,630.9
Ventura	20.7	17.7	--	--	--	--	--	--	20.7	17.7
Yuba	2,295.0	937.1	--	--	152.1	142.3	1,267.9	589.3	3,715.0	1,115.6
All counties	197,702.1	4,948.0	5,201.4	1,248.4	5,507.1	1,291.6	125,369.6	3,994.7	333,780.2	6,516.8

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — or not present= less than 50,000 board feet was estimated.

^a Includes sawtimber-sized trees that are >= 9 inches diameter at breast height for softwood species and >= 11 inches diameter at breast height for hardwood species.

Table 52—Net boardfoot volume (Scribner rule) of sawtimber trees^a on timberland, by forest type group and ownership group, California, 2006–2015

Forest type group	Ownership Group													
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All private		All owners	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million board feet, Scribner rule</i>														
Softwoods:														
California mixed conifer	120,591.3	4,626.8	2,044.3	619.6	1,125.4	544.5	23,397.8	1,777.1	9,441.9	1,200.7	32,839.7	2,069.9	156,600.7	5,093.9
Douglas-fir	6,653.8	1,461.5	1,214.2	957.6	788.9	544.4	7,266.9	1,098.7	9,164.1	1,572.3	16,431.0	1,888.1	25,087.8	2,640.8
Fir / spruce / mtn. hemlock	35,059.8	3,043.4	249.4	259.7	237.4	191.6	3,274.3	716.6	1,046.3	431.8	4,320.6	832.7	39,867.2	3,178.9
Lodgepole pine	3,380.3	713.2	--	--	33.4	29.1	215.3	110.0	547.3	247.9	762.6	271.1	4,176.3	763.5
Pinyon / juniper woodlands	21.2	16.0	--	--	--	--	--	--	--	--	--	--	21.2	16.0
Ponderosa pine	14,298.3	1,385.0	314.7	122.3	145.0	150.0	3,466.8	574.4	4,933.3	764.0	8,400.1	945.4	23,158.1	1,687.3
Redwood	11.4	10.5	--	--	2,389.9	1,021.0	14,049.1	2,106.5	13,623.0	2,458.7	27,672.1	3,172.9	30,073.4	3,332.8
Western juniper	628.9	166.3	62.0	37.3	--	--	14.4	11.7	130.4	52.7	144.7	53.8	835.7	178.7
Western white pine	272.4	156.1	--	--	--	--	--	--	--	--	--	--	272.4	156.1
Other western softwoods	207.3	135.6	19.1	13.1	--	--	1,126.1	610.0	1,452.4	665.7	2,578.5	902.9	2,805.0	913.1
Total	181,124.6	5,071.8	3,903.8	1,176.7	4,720.1	1,234.0	52,810.7	2,931.8	40,338.7	3,232.7	93,149.4	3,975.7	282,897.8	6,605.7
Hardwoods:														
Alder / maple	359.0	219.9	144.7	116.0	--	--	1,525.5	501.6	536.5	237.2	2,062.0	553.5	2,565.7	606.3
Aspen / birch	96.0	72.9	--	--	--	--	34.1	32.8	25.7	21.0	59.8	38.9	155.8	82.6
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	4,926.1	1,114.0	549.6	365.0	323.6	244.8	7,868.1	1,055.9	11,932.4	1,584.8	19,800.5	1,863.2	25,599.9	2,210.1
Western oak	9,109.7	1,040.7	397.2	115.3	257.9	174.3	2,793.2	475.5	5,809.8	701.9	8,603.0	839.3	18,367.9	1,351.3
Woodland hardwoods	78.6	35.1	--	--	--	--	--	--	--	--	--	--	78.6	35.1
Other hardwoods	1,720.7	638.9	203.0	138.6	205.5	281.8	557.3	218.4	992.5	327.1	1,549.8	392.0	3,678.9	861.0
Total	16,290.1	1,637.9	1,294.5	422.5	787.1	411.7	12,778.2	1,259.2	19,296.9	1,745.5	32,075.1	2,073.2	50,446.7	2,710.3
Nonstocked	287.4	108.2	3.1	3.8	--	--	137.0	43.7	8.1	5.2	145.2	44.0	435.6	116.9
All forest types	197,702.1	4,948.0	5,201.4	1,248.4	5,507.1	1,291.6	65,725.9	3,023.5	59,643.7	3,538.7	125,369.6	3,994.7	333,780.2	6,516.8

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 board feet was estimated.

^a Includes sawtimber-sized trees that are ≥ 9 inches diameter at breast height for softwood species and ≥ 11 inches diameter at breast height for hardwood species.

Table 53—Net boardfoot volume (Scribner rule) of sawtimber trees^a on timberland, by forest type group and stand size class, California, 2006-2015

Forest type group	Stand size class							
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		All classes	
	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million board feet, Scribner rule</i>								
Softwoods:								
California mixed conifer	155,815.7	5,096.1	352.4	100.2	432.5	99.7	156,600.7	5,093.9
Douglas-fir	24,548.7	2,629.0	273.8	92.0	265.3	158.0	25,087.8	2,640.8
Fir / spruce / mtn. hemlock	39,748.4	3,178.9	53.8	28.6	65.0	31.4	39,867.2	3,178.9
Lodgepole pine	4,076.6	762.6	83.1	50.4	16.6	16.5	4,176.3	763.5
Pinyon / juniper woodlands	21.2	16.0	--	--	--	--	21.2	16.0
Ponderosa pine	22,868.3	1,687.1	190.3	52.2	99.5	37.0	23,158.1	1,687.3
Redwood	29,995.3	3,333.0	43.8	24.9	34.4	22.7	30,073.4	3,332.8
Western juniper	792.3	177.0	--	--	43.3	25.1	835.7	178.7
Western white pine	272.4	156.1	--	--	--	--	272.4	156.1
Other western softwoods	2,793.5	913.1	11.5	10.3	--	--	2,805.0	913.1
Total	280,932.4	6,613.4	1,008.7	158.8	956.7	196.0	282,897.8	6,605.7
Hardwoods:								
Alder / maple	2,312.5	592.7	219.1	127.0	34.1	22.6	2,565.7	606.3
Aspen / birch	77.2	70.4	52.9	37.8	25.7	21.0	155.8	82.6
Tanoak / laurel	23,623.2	2,187.2	1,609.2	344.7	367.5	135.5	25,599.9	2,210.1
Western oak	15,366.7	1,290.6	2,587.7	408.2	413.4	125.4	18,367.9	1,351.3
Woodland hardwoods	78.6	35.1	--	--	--	--	78.6	35.1
Other hardwoods	3,438.7	857.6	127.2	65.0	113.1	43.8	3,678.9	861.0
Total	44,896.8	2,674.1	4,596.1	551.5	953.8	191.7	50,446.7	2,710.3
Nonstocked	--	--	--	--	--	--	435.6	116.9
All forest types	325,829.2	6,584.0	5,604.9	571.8	1,910.4	272.7	333,780.2	6,516.8

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 board feet was estimated.

^a Includes sawtimber-sized trees that are >= 9 inches diameter at breast height for softwood species and >= 11 inches diameter at breast height for hardwood species.

Table 54—Net boardfoot volume (Scribner rule) of sawtimber trees^a on timberland, by species group and diameter class, California, 2006-2015

Species group	Diameter class (inches)																	
	9.0-10.9		11.0-12.9		13.0-14.9		15.0-16.9		17.0-18.9		19.0-20.9		21.0-22.9		23.0-24.9			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million board feet, Scribner rule</i>																		
Softwoods:																		
Douglas-fir	2,583.0	121.3	3,791.8	183.0	4,571.1	234.3	5,137.5	288.4	5,864.5	343.7	5,873.1	392.5	4,909.7	373.9	4,729.8	335.0		
Incense-cedar	505.6	33.8	685.1	50.8	661.7	54.4	890.8	76.1	940.7	88.5	1,000.0	100.1	920.5	117.8	843.9	92.0		
Lodgepole pine	240.8	39.7	337.5	51.9	449.8	70.6	366.9	69.2	495.7	96.1	614.5	123.0	424.1	102.0	451.3	100.7		
Ponderosa and Jeffrey pines	1,219.7	66.1	2,132.3	113.0	2,831.6	156.9	3,567.5	201.9	4,098.3	261.8	4,448.1	316.8	4,685.4	350.9	3,909.3	280.9		
Redwood	387.9	43.0	696.4	74.9	919.1	93.8	1,175.5	126.1	1,354.1	150.2	1,662.1	221.0	1,727.0	234.5	1,984.2	249.9		
Sitka spruce	13.8	7.5	23.4	19.5	45.6	26.4	73.5	50.9	115.6	80.2	41.8	30.1	237.7	163.5	37.1	20.7		
Sugar pine	131.0	14.9	225.3	25.3	267.8	34.6	387.0	51.7	516.9	72.5	573.8	88.3	682.0	110.7	793.2	107.9		
True fir	1,878.7	95.2	2,788.8	139.7	3,865.2	209.5	4,654.2	272.9	5,209.1	333.0	5,456.3	347.2	5,097.4	373.1	5,058.8	344.0		
Western hemlock	26.3	13.6	44.7	22.4	73.1	35.9	53.8	32.4	74.5	36.4	40.6	28.5	102.0	74.8	3.9	4.0		
Western juniper	30.5	5.0	34.4	7.4	49.3	10.8	29.0	8.8	56.4	14.9	37.3	12.4	17.4	10.1	24.2	10.6		
Western white pine	13.2	4.1	18.5	6.7	36.2	11.3	29.2	12.4	84.6	23.6	110.1	35.0	121.4	42.2	82.2	25.3		
Other western softwoods	114.0	21.4	139.2	29.6	194.9	43.7	268.0	65.6	368.1	98.2	397.7	129.6	176.7	54.9	195.6	64.4		
Total	7,144.5	178.9	10,917.5	271.8	13,965.3	367.0	16,632.8	473.5	19,178.6	592.9	20,255.4	672.0	19,101.1	727.8	18,113.6	634.9		
Hardwoods:																		
Cottonwood and aspen	--	--	8.8	4.3	19.0	11.1	17.5	11.7	5.7	5.8	28.9	18.1	12.9	13.2	9.1	6.0		
Oak	--	--	840.3	54.8	713.2	55.4	741.3	62.8	693.6	71.3	617.7	68.9	573.3	80.1	561.9	76.9		
Red alder	--	--	301.6	69.0	188.9	54.1	164.2	57.1	176.2	76.0	133.8	50.4	32.6	22.0	89.1	47.8		
Tanoak	--	--	1,395.9	117.6	1,263.1	115.5	1,182.6	133.8	903.5	120.3	1,079.3	141.6	908.3	153.0	878.3	173.4		
Other western hardwoods	--	--	808.1	77.4	856.7	92.7	621.5	77.2	727.4	101.7	428.4	79.3	430.9	94.4	213.8	40.0		
Total	--	--	3,354.8	173.6	3,040.8	173.6	2,727.1	178.7	2,506.4	191.4	2,288.1	187.8	1,958.1	199.7	1,752.1	200.3		
All species groups	7,144.5	178.9	14,272.3	321.3	17,006.2	405.7	19,359.9	503.9	21,685.0	622.4	22,543.5	693.9	21,059.2	753.7	19,865.7	664.9		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 board feet was estimated.

^a Includes sawtimber-sized trees that are ≥ 9 inches diameter at breast height for softwood species and ≥ 11 inches diameter at breast height for hardwood species.

Table 54—Net boardfoot volume (Scribner rule) of sawtimber trees^a on timberland, by species group and diameter class, California 2006-2015 (Continued)

Species group	Diameter class (inches)															
	25.0-26.9		27.0-28.9		29.0-30.9		31.0-32.9		33.0-34.9		35.0-36.9		37.0-38.9		39.0-40.9	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million board feet, Scribner rule</i>																
Softwoods:																
Douglas-fir	5,196.7	262.8	4,737.6	261.0	5,064.7	301.6	4,566.6	276.9	4,395.0	307.2	4,128.6	322.3	4,269.3	335.1	4,135.9	344.9
Incense-cedar	1,036.9	84.0	856.1	72.4	786.0	76.3	759.9	75.9	783.2	80.2	603.8	73.6	645.4	99.8	496.2	80.9
Lodgepole pine	368.5	72.5	238.1	52.9	218.8	61.5	168.9	54.9	90.1	29.0	93.2	31.2	88.3	38.8	70.1	32.6
Ponderosa and Jeffrey pines	3,791.6	222.3	4,014.2	244.5	3,691.2	239.5	3,453.3	258.5	2,898.9	245.5	2,622.0	270.2	1,741.7	195.4	2,272.5	229.7
Redwood	2,276.5	259.3	2,200.8	229.5	1,974.4	231.3	1,916.2	243.2	1,740.5	228.2	1,522.7	210.5	1,489.6	235.5	1,236.7	205.4
Sitka spruce	72.9	34.1	44.6	22.5	70.7	33.2	45.8	24.6	50.2	29.0	37.6	38.2	12.9	12.0	18.5	18.6
Sugar pine	957.7	84.3	1,178.3	104.5	1,228.1	119.2	924.2	102.7	1,290.9	134.4	1,072.5	141.1	866.2	118.3	716.2	120.1
True fir	4,713.1	277.5	5,032.3	306.9	4,420.2	305.3	4,452.5	324.3	3,277.0	263.6	3,199.7	275.6	2,847.9	264.8	2,672.8	307.6
Western hemlock	29.7	13.2	23.4	19.3	14.2	10.1	--	--	--	--	--	--	--	--	--	--
Western juniper	18.7	4.8	16.8	6.6	6.8	3.5	11.3	4.3	3.6	2.5	14.2	7.7	13.9	9.8	2.7	2.7
Western white pine	96.8	24.2	82.6	25.0	130.1	31.2	94.5	29.6	78.5	26.7	73.8	27.1	134.4	38.8	75.5	31.9
Other western softwoods	258.7	70.3	239.9	67.7	118.9	41.9	146.4	68.6	147.0	51.3	166.8	54.0	125.9	49.9	41.2	31.9
Total	18,817.7	541.4	18,664.6	541.2	17,724.1	576.4	16,539.8	578.7	14,755.1	554.9	13,534.9	585.7	12,235.3	569.5	11,738.3	571.1
Hardwoods:																
Cottonwood and aspen	9.0	7.2	21.0	9.7	13.2	8.5	20.6	11.3	2.7	2.7	4.5	4.5	--	--	--	--
Oak	411.3	39.0	343.0	38.1	235.2	32.7	274.9	43.3	182.5	40.6	86.5	23.5	108.2	30.6	65.1	24.8
Red alder	17.2	9.5	9.9	9.6	22.8	11.2	19.1	12.7	--	--	--	--	--	--	--	--
Tanoak	475.8	65.1	423.9	67.8	257.3	50.3	158.6	38.2	94.3	30.0	101.6	39.8	64.5	36.7	20.8	14.9
Other western hardwoods	169.3	26.8	129.4	23.2	139.3	27.3	107.1	28.0	52.1	17.8	63.9	21.8	50.3	19.7	27.1	14.3
Total	1,082.6	82.8	927.1	83.4	667.7	71.8	580.3	66.0	331.6	53.8	256.4	51.5	223.1	51.6	113.0	32.2
All species groups	19,900.3	548.1	19,591.7	548.7	18,391.8	581.7	17,120.1	583.5	15,086.7	559.8	13,791.3	588.6	12,458.4	575.5	11,851.3	573.1

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 board feet was estimated.

^a Includes sawtimber-sized trees that are ≥ 9 inches diameter at breast height for softwood species and ≥ 11 inches diameter at breast height for hardwood species.

Table 54--Net boardfoot volume (Scribner rule) of sawtimber trees^a on timberland, by species group and diameter class, California 2006-2015 (Continued)

Species group	Diameter class (inches)											
	41.0-42.9		43.0-44.9		45.0-46.9		47.0-48.9		49.0 +		All classes	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million board feet, Scribner rule</i>												
Softwoods:												
Douglas-fir	2,957.9	312.7	3,418.8	339.1	3,116.0	335.1	2,593.7	331.7	15,408.5	1,489.8	101,449.7	3,951.2
Incense-cedar	504.2	79.0	411.3	71.1	330.5	72.5	245.6	65.7	1,607.7	265.2	15,515.1	898.1
Lodgepole pine	25.9	23.5	34.4	44.1	74.8	37.8	--	--	--	--	4,851.7	653.6
Ponderosa and Jeffrey pines	1,623.3	200.5	1,053.5	168.7	989.8	185.3	579.5	139.2	2,595.9	500.4	58,219.4	2,159.6
Redwood	829.3	162.1	1,024.4	197.2	727.6	151.9	474.0	116.6	4,364.4	954.9	31,683.4	2,786.9
Sitka spruce	77.4	41.8	61.3	34.4	37.6	33.0	--	--	87.4	76.7	1,205.4	458.9
Sugar pine	779.6	130.2	570.5	118.6	688.7	129.3	655.0	145.0	3,239.5	496.3	17,744.6	1,045.9
True fir	2,072.0	258.4	1,690.1	219.2	1,531.8	241.4	1,306.4	203.4	3,642.7	615.9	74,867.1	3,371.1
Western hemlock	--	--	--	--	--	--	--	--	--	--	486.2	221.0
Western juniper	2.0	2.1	1.8	1.9	--	--	--	--	13.5	8.2	383.9	57.7
Western white pine	50.6	23.3	82.4	33.3	52.7	27.5	46.0	31.5	210.1	75.0	1,703.4	253.6
Other western softwoods	45.6	31.1	22.1	22.9	44.0	30.4	--	--	94.5	46.6	3,305.2	631.7
Total	8,967.9	509.6	8,370.6	510.1	7,593.4	508.6	5,900.2	461.4	31,264.4	2,178.3	311,415.2	6,320.6
Hardwoods:												
Cottonwood and aspen	--	--	--	--	--	--	--	--	--	--	172.7	49.0
Oak	64.9	34.6	31.9	18.9	32.3	18.5	18.6	12.2	42.7	20.7	6,638.2	349.8
Red alder	--	--	--	--	--	--	--	--	--	--	1,155.4	268.8
Tanoak	89.3	38.9	--	--	9.6	8.6	46.5	33.5	77.2	49.2	9,430.2	767.3
Other western hardwoods	31.2	15.4	11.3	5.2	25.3	18.8	33.9	23.1	33.4	15.9	4,960.4	383.2
Total	185.4	54.8	43.1	19.6	67.1	28.6	98.9	42.5	153.2	55.7	22,356.9	1,020.8
All species groups	9,153.3	513.9	8,413.8	510.5	7,660.6	509.3	5,999.1	464.8	31,417.6	2,178.5	333,772.1	6,516.7

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 board feet was estimated.

^a Includes sawtimber-sized trees that are ≥ 9 inches diameter at breast height for softwood species and ≥ 11 inches diameter at breast height for hardwood species.

Table 55—Net boardfoot volume (International ¼-inch rule) of sawtimber trees^a on timberland, by species group and diameter class, California, 2006-2015

Species group	Diameter class (inches)																	
	9.0-10.9		11.0-12.9		13.0-14.9		15.0-16.9		17.0-18.9		19.0-20.9		21.0-22.9		23.0-24.9			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Million board feet, International ¼-inch rule																		
Softwoods:																		
Douglas-fir	3,440.2	160.9	4,777.3	229.7	5,570.4	284.4	6,096.9	340.2	6,836.6	399.1	6,751.2	448.8	5,570.3	422.0	5,321.0	374.4		
Incense-cedar	684.8	45.7	889.0	65.8	838.5	68.9	1,108.6	94.5	1,153.6	108.3	1,214.5	121.3	1,104.7	141.1	1,004.9	109.3		
Lodgepole pine	323.0	53.1	429.0	65.9	552.4	86.3	441.0	82.5	583.3	112.4	715.7	141.9	485.2	116.2	514.8	114.4		
Ponderosa and Jeffrey pines	1,643.7	89.0	2,746.2	145.3	3,525.7	194.6	4,328.9	244.0	4,867.3	308.7	5,180.0	365.8	5,374.5	399.2	4,432.1	316.6		
Redwood	523.8	57.9	896.3	96.5	1,146.9	116.9	1,434.0	153.2	1,619.2	178.7	1,957.6	259.2	2,011.0	270.9	2,271.6	283.7		
Sitka spruce	18.2	9.9	29.3	24.4	55.5	32.0	86.3	59.7	132.3	91.6	48.4	34.8	264.8	181.7	41.4	23.0		
Sugar pine	176.7	20.1	289.7	32.4	333.5	42.9	469.5	62.5	616.1	86.2	669.9	102.7	784.8	127.0	907.0	123.2		
True fir	2,526.8	127.6	3,567.7	178.2	4,784.6	258.1	5,625.2	327.7	6,176.3	392.5	6,379.8	403.9	5,887.3	428.2	5,764.1	390.5		
Western hemlock	34.6	17.6	55.7	27.6	88.1	43.3	62.8	37.8	85.7	41.8	45.8	32.1	113.0	82.5	4.4	4.5		
Western juniper	41.1	6.7	44.8	9.6	62.8	13.8	36.7	11.1	70.7	18.7	46.4	15.4	22.1	12.8	30.6	13.3		
Western white pine	17.8	5.4	23.9	8.6	45.5	14.2	35.7	15.1	103.1	28.8	130.7	41.5	143.7	49.7	95.6	29.3		
Other western softwoods	152.9	28.5	177.7	37.6	240.9	53.7	321.7	78.3	433.5	114.6	462.2	149.4	204.5	63.2	222.5	72.3		
Total	9,583.6	238.9	13,926.5	345.1	17,244.8	450.2	20,047.4	565.7	22,677.7	695.4	23,602.3	777.0	21,965.8	829.8	20,610.0	717.4		
Hardwoods:																		
Cottonwood and aspen	--	--	9.8	4.8	22.6	13.2	21.0	14.1	6.8	6.9	33.6	21.1	15.0	15.3	10.7	7.0		
Oak	--	--	1,089.4	71.0	902.1	69.9	925.1	78.1	854.8	87.3	755.2	83.6	694.0	96.3	669.5	90.6		
Red alder	--	--	335.7	76.8	220.4	63.1	190.5	65.9	200.3	86.0	150.4	56.4	37.5	25.3	98.9	53.1		
Tanoak	--	--	1,780.8	149.5	1,560.2	141.9	1,428.5	160.8	1,076.7	142.8	1,273.4	165.7	1,055.3	176.5	999.9	194.4		
Other western hardwoods	--	--	1,015.8	96.7	1,046.0	111.9	748.2	91.9	862.0	119.0	502.8	91.8	501.7	108.1	256.4	47.7		
Total	--	--	4,231.5	216.4	3,751.2	211.9	3,313.4	214.4	3,000.6	225.5	2,715.4	220.0	2,303.5	231.7	2,035.4	226.9		
All species groups	9,583.6	238.9	18,158.0	405.5	20,996.0	497.0	23,360.9	601.9	25,678.3	730.1	26,317.7	803.0	24,269.3	860.3	22,645.4	751.1		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 board feet was estimated.

^a Includes sawtimber-sized trees that are ≥ 9 inches diameter at breast height for softwood species and ≥ 11 inches diameter at breast height for hardwood species.

Table 55—Net boardfoot volume (International ¼-inch rule) of sawtimber trees^a on timberland, by species group and diameter class, California, 2006-2015 (Continued)

Species group	Diameter class (inches)															
	25.0-26.9		27.0-28.9		29.0-30.9		31.0-32.9		33.0-34.9		35.0-36.9		37.0-38.9		39.0-40.9	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Softwoods:</i>																
Douglas-fir	5,782.4	290.6	5,228.6	286.4	5,543.0	327.8	4,974.6	299.7	4,757.6	330.3	4,446.3	345.1	4,574.2	357.0	4,430.4	367.2
Incense-cedar	1,222.7	98.4	1,000.1	84.2	915.5	88.4	876.8	87.5	902.4	92.1	691.2	83.7	735.8	112.1	560.8	91.0
Lodgepole pine	414.7	81.4	266.0	58.7	243.0	67.6	188.0	60.6	99.2	31.9	102.7	34.2	96.3	41.8	76.2	35.1
Ponderosa and Jeffrey pines	4,243.7	247.1	4,437.1	268.1	4,042.7	260.3	3,748.7	278.6	3,134.5	263.6	2,803.5	286.4	1,860.9	207.7	2,416.3	242.9
Redwood	2,577.7	291.7	2,479.7	257.0	2,208.2	257.3	2,126.1	268.2	1,925.0	250.9	1,674.4	230.1	1,633.0	256.0	1,349.1	222.6
Sitka spruce	79.9	37.3	49.1	24.8	77.1	36.0	48.8	26.2	54.1	31.3	40.6	41.2	14.2	13.3	19.7	19.7
Sugar pine	1,078.6	94.6	1,314.5	116.4	1,354.2	130.9	1,012.8	112.1	1,403.9	145.6	1,159.6	151.7	932.3	126.9	766.1	128.0
True fir	5,316.1	310.8	5,624.7	340.4	4,892.9	335.5	4,900.2	354.0	3,583.3	286.3	3,479.1	297.9	3,089.3	285.3	2,885.3	330.2
Western hemlock	32.9	14.6	25.3	20.9	15.7	11.1	--	--	--	--	--	--	--	--	--	--
Western juniper	23.5	6.0	20.9	8.1	8.6	4.4	14.5	5.5	4.6	3.2	17.5	9.4	17.5	12.2	3.6	3.7
Western white pine	111.8	27.9	94.7	28.6	148.1	35.4	107.7	33.6	88.8	30.1	83.3	30.5	149.8	43.1	83.5	35.2
Other western softwoods	290.7	78.6	269.7	75.4	134.7	47.0	161.8	74.7	161.9	56.1	183.3	59.0	136.9	54.1	45.3	34.3
Total	21,174.7	604.6	20,810.3	598.9	19,583.6	631.7	18,160.0	630.5	16,115.3	601.6	14,681.5	629.8	13,240.4	611.5	12,636.2	610.9
<i>Hardwoods:</i>																
Cottonwood and aspen	10.5	8.4	24.0	11.1	14.8	9.5	23.7	13.0	3.3	3.3	5.3	5.4	--	--	--	--
Oak	488.4	45.9	403.0	44.3	275.6	37.9	317.3	49.4	211.5	46.7	99.6	26.8	123.7	34.4	74.3	27.7
Red alder	19.2	10.5	10.6	10.2	25.6	12.5	20.8	13.8	--	--	--	--	--	--	--	--
Tanoak	539.4	73.4	475.8	75.4	288.4	56.0	175.1	41.8	104.8	33.1	112.3	43.4	69.8	39.5	22.6	16.3
Other western hardwoods	198.8	30.8	151.3	26.5	159.6	30.7	124.0	31.9	60.9	20.1	74.6	25.0	58.2	22.2	31.7	16.3
Total	1,256.3	94.6	1,064.8	94.0	764.0	80.8	660.8	74.3	380.4	61.0	291.8	57.3	251.7	56.8	128.6	36.0
All species groups	22,431.0	612.4	21,875.1	607.6	20,347.6	637.6	18,820.8	636.1	16,495.7	607.3	14,973.4	633.2	13,492.1	618.0	12,764.8	613.1

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 board feet was estimated.

^a Includes sawtimber-sized trees that are ≥ 9 inches diameter at breast height for softwood species and ≥ 11 inches diameter at breast height for hardwood species.

Table 55—Net boardfoot volume (International ¼-inch rule) of sawtimber trees^a on timberland, by species group and diameter class, California, 2006–2015 (Continued)

Species group	Diameter class (inches)												All classes	
	41.0-42.9		43.0-44.9		45.0-46.9		47.0-48.9		49.0 +					
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million board feet, International ¼-inch rule</i>														
Softwoods:														
Douglas-fir	3,153.8	331.5	3,641.9	359.9	3,310.4	354.1	2,744.4	348.8	16,445.0	1,585.1	113,396.3	4,301.4		
Incense-cedar	571.6	88.8	466.5	80.1	369.9	80.8	276.3	74.0	1,811.5	296.8	18,399.9	1,046.3		
Lodgepole pine	27.8	25.0	37.0	47.4	81.5	40.9	--	--	--	--	5,676.9	748.3		
Ponderosa and Jeffrey pines	1,718.3	211.8	1,112.9	177.4	1,041.1	194.1	606.0	145.2	2,734.3	525.7	65,998.5	2,397.0		
Redwood	906.4	176.3	1,116.4	214.4	791.0	164.6	516.6	126.4	4,808.1	1,044.4	35,972.1	3,116.5		
Sitka spruce	81.7	44.1	66.1	37.0	39.2	34.4	--	--	93.4	82.0	1,340.1	511.9		
Sugar pine	829.9	138.2	603.1	125.2	728.3	136.5	689.7	152.5	3,422.4	524.9	19,542.7	1,134.3		
True fir	2,229.1	276.3	1,809.1	233.3	1,639.4	256.5	1,398.8	216.1	3,898.9	653.7	85,458.0	3,763.2		
Western hemlock	--	--	--	--	--	--	--	--	--	--	564.0	255.1		
Western juniper	2.7	2.8	2.4	2.5	--	--	--	--	19.2	11.5	490.2	73.4		
Western white pine	56.7	26.1	90.6	36.4	58.2	30.3	50.0	34.1	230.6	82.1	1,949.7	288.8		
Other western softwoods	49.9	34.1	24.6	25.5	47.9	32.9	--	--	104.2	50.9	3,826.7	717.9		
Total	9,627.9	544.0	8,970.7	543.9	8,106.9	539.5	6,281.9	487.7	33,567.5	2,330.7	352,615.1	6,950.7		
Hardwoods:														
Cottonwood and aspen	--	--	--	--	--	--	--	--	--	--	201.2	57.3		
Oak	74.6	39.1	36.4	21.0	37.6	20.9	22.4	14.7	49.8	23.5	8,104.3	422.6		
Red alder	--	--	--	--	--	--	--	--	--	--	1,309.7	303.7		
Tanoak	95.3	41.4	--	--	10.4	9.4	49.3	35.3	91.3	58.8	11,209.4	897.5		
Other western hardwoods	37.2	18.1	15.0	6.9	29.1	20.8	37.8	25.7	40.2	18.7	5,951.2	453.7		
Total	207.1	60.4	51.4	22.1	77.1	32.1	109.5	46.1	181.2	66.0	26,775.8	1,201.2		
All species groups	9,835.0	548.8	9,022.1	544.6	8,184.1	540.3	6,391.3	491.3	33,748.8	2,331.0	379,390.8	7,180.0		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50,000 board feet was estimated.

^a Includes sawtimber-sized trees that are ≥ 9 inches diameter at breast height for softwood species and ≥ 11 inches diameter at breast height for hardwood species.

Table 56—Net boardfoot volume (International ¼-inch rule) of sawtimber trees^a on timberland, by species group and ownership group, California, 2006-2015

Species group	Ownership Group													
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All private		All owners	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	Million board feet, International ¼-inch rule													
Softwoods:														
Douglas-fir	64,963.4	3,516.4	3,395.1	1,145.3	1,570.0	527.0	22,024.8	1,485.0	21,443.0	1,792.9	43,467.9	2,167.1	113,396.3	4,301.4
Incense-cedar	12,677.0	913.8	104.2	90.0	137.0	76.8	3,282.7	366.2	2,198.9	355.1	5,481.7	500.0	18,399.9	1,046.3
Lodgepole pine	4,496.3	660.1	--	--	40.9	35.5	396.7	153.0	743.0	317.3	1,139.7	352.0	5,676.9	748.3
Ponderosa and Jeffrey pines	45,266.0	2,049.2	942.6	254.6	436.3	201.7	9,594.7	794.6	9,758.9	971.3	19,353.6	1,211.3	65,998.5	2,397.0
Redwood	117.4	122.2	--	--	2,486.0	933.9	17,006.8	1,941.8	16,362.0	2,354.7	33,368.8	2,961.5	35,972.1	3,116.5
Sitka spruce	--	--	--	--	--	--	870.7	425.0	469.4	285.7	1,340.1	511.9	1,340.1	511.9
Sugar pine	14,277.5	1,019.3	222.3	98.5	98.1	77.9	3,831.1	416.7	1,113.7	259.0	4,944.8	483.4	19,542.7	1,134.3
True fir	69,594.6	3,543.9	472.6	293.0	767.0	407.3	10,896.1	1,004.5	3,727.7	637.8	14,623.9	1,165.8	85,458.0	3,763.2
Western hemlock	7.1	7.4	--	--	--	--	476.9	250.2	80.0	49.4	556.9	255.0	564.0	255.1
Western juniper	371.5	65.0	36.2	18.3	--	--	26.4	10.4	56.1	26.7	82.4	28.7	490.2	73.4
Western white pine	1,852.8	285.7	--	--	--	--	92.0	41.1	4.9	4.9	97.0	41.4	1,949.7	288.8
Other western softwoods	1,903.1	542.5	57.2	28.2	106.5	57.6	499.2	180.0	1,260.7	409.4	1,759.9	447.1	3,826.7	717.9
Total	215,526.6	5,352.4	5,230.2	1,283.0	5,641.7	1,338.3	68,998.3	3,238.6	57,218.3	3,567.9	126,216.5	4,187.9	352,615.1	6,950.7
Hardwoods:														
Cottonwood and aspen	84.0	39.6	22.8	18.5	--	--	27.3	22.7	67.1	29.3	94.4	37.1	201.2	57.3
Oak	3,567.4	279.5	155.2	40.5	178.0	90.1	1,317.3	168.2	2,886.4	260.4	4,203.7	303.7	8,104.3	422.6
Red alder	104.0	49.0	5.8	4.6	--	--	1,031.3	291.3	168.6	71.7	1,200.0	299.6	1,309.7	303.7
Tanoak	1,836.0	324.0	299.0	205.8	273.7	162.2	3,647.2	467.3	5,153.6	669.7	8,800.7	794.2	11,209.4	897.5
Other western hardwoods	1,927.1	281.6	148.4	55.8	106.8	68.5	1,038.2	158.1	2,730.6	314.1	3,768.8	345.7	5,951.2	453.7
Total	7,518.4	583.7	631.2	231.4	558.5	217.0	7,061.3	632.5	11,006.3	854.5	18,067.6	1,007.3	26,775.8	1,201.2
All species groups	223,045.0	5,418.7	5,861.4	1,355.0	6,200.2	1,445.4	76,059.6	3,426.0	68,224.6	3,948.0	144,284.2	4,452.6	379,390.8	7,180.0

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50,000 board feet was estimated.

^a Includes sawtimber-sized trees that are ≥ 9 inches diameter at breast height for softwood species and ≥ 11 inches diameter at breast height for hardwood species.

Table 57—Average net boardfoot volume per acre (Scribner rule) of sawtimber trees^a on timberland, by forest type group and ownership group, California, 2006-2015

Forest type group	Ownership Group													
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All private		All owners	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Board feet per acre, Scribner rule</i>														
Softwoods:														
California mixed conifer	28,782.22	801.70	28,142.56	3,441.18	33,419.69	6,594.14	14,381.52	764.59	17,790.68	1,359.71	15,220.08	666.00	24,265.05	585.49
Douglas-fir	42,575.42	5,393.00	65,939.68	34,331.08	35,933.53	15,666.68	20,912.77	1,896.83	27,321.10	2,975.35	24,060.33	1,782.18	28,523.25	2,003.30
Fir / spruce / mtn. hemlock	31,590.23	1,717.68	44,500.26	44,500.26	23,145.86	23,145.86	17,015.90	2,378.45	17,479.87	4,364.44	17,125.99	2,082.11	28,931.72	1,476.98
Lodgepole pine	14,588.65	1,988.79	--	--	3,814.80	3,814.80	7,045.15	1,785.39	15,571.08	2,521.51	11,605.52	2,076.58	13,640.09	1,600.96
Pinyon / juniper woodlands	2,009.11	702.26	--	--	--	--	--	--	--	--	--	--	2,009.11	702.26
Ponderosa pine	11,455.42	854.63	8,075.82	1,632.54	39,631.69	39,631.69	8,008.86	966.76	13,709.50	1,370.13	10,596.60	840.52	11,114.92	608.21
Redwood	3,396.16	3,396.16	--	--	71,555.46	4,159.13	36,070.55	3,350.22	60,731.00	5,584.16	45,082.77	3,166.01	46,226.96	3,061.19
Western juniper	4,920.69	823.75	3,674.39	137.61	--	--	1,930.30	1,930.30	3,441.83	427.87	3,193.88	395.16	4,398.15	576.61
Western white pine	15,284.80	2,754.72	--	--	--	--	--	--	--	--	--	--	15,284.80	2,754.72
Other western softwoods	6,355.53	3,478.53	7,697.37	2,245.64	--	--	30,023.02	10,363.38	49,695.06	11,515.24	38,638.46	7,905.41	27,542.00	6,289.39
Other softwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	25,410.55	583.54	25,187.44	5,798.58	42,253.50	6,171.18	17,231.85	737.58	25,017.44	1,467.53	19,915.90	694.22	23,434.67	449.33
Hardwoods:														
Alder / maple	17,102.56	7,322.68	12,088.78	6,526.31	--	--	18,915.25	3,531.96	13,636.33	2,867.36	17,184.33	2,608.13	16,774.35	2,352.92
Aspen / birch	7,411.18	2,492.27	--	--	--	--	8,983.70	8,983.70	2,638.98	2,638.98	4,416.70	1,612.84	5,881.14	1,755.99
Tanoak / laurel	23,124.83	3,520.41	17,756.50	9,414.53	30,751.47	3,409.21	15,543.94	1,306.67	21,829.73	1,885.35	18,807.51	1,186.69	19,582.29	1,146.85
Western oak	9,765.93	824.84	4,328.60	773.62	15,270.27	6,867.27	7,639.71	840.03	8,539.77	677.53	8,225.14	529.60	8,799.40	464.56
Woodland hardwoods	2,259.87	307.82	--	--	--	--	--	--	--	--	--	--	1,898.08	386.31
Other hardwoods	13,212.24	4,021.09	15,981.10	3,609.78	46,168.92	31,108.89	9,493.27	2,553.76	10,999.08	2,597.69	10,405.56	1,870.74	12,415.36	2,349.07
Total	12,113.68	955.16	8,783.22	2,405.29	24,700.03	8,221.18	12,523.36	842.21	14,111.26	942.25	13,432.73	648.29	12,895.89	533.10
Nonstocked	722.19	259.03	376.98	376.98	--	--	837.83	236.07	345.64	177.57	776.01	208.38	734.36	185.94
All forest types	22,287.31	504.64	16,745.45	3,309.57	38,357.69	5,218.36	15,469.89	576.35	19,858.73	925.17	17,287.51	501.09	20,135.34	358.56

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 board feet per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes sawtimber-sized trees that are >= 9 inches diameter at breast height for softwood species and >= 11 inches diameter at breast height for hardwood species.

Table 58—Average net boardfoot volume per acre (Scribner rule) of sawtimber trees^a on timberland, by forest type group and stand size class, California, 2006-2015

Forest type group	Stand size class							
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		All classes	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Board feet per acre, Scribner rule</i>								
Softwoods:								
California mixed conifer	25,989.04	608.71	2,620.82	522.14	1,335.60	253.35	24,265.05	585.49
Douglas-fir	32,081.69	2,149.87	4,086.48	994.20	5,602.21	2,568.64	28,523.25	2,003.30
Fir / spruce / mtn. hemlock	30,263.62	1,503.38	2,702.98	565.64	1,455.93	430.05	28,931.72	1,476.98
Hemlock / Sitka spruce	--	--	--	--	--	--	--	--
Lodgepole pine	15,246.18	1,710.42	5,891.50	1,330.15	672.57	563.84	13,640.09	1,600.96
Pinyon / juniper woodlands	2,009.11	702.26					2,009.11	702.26
Ponderosa pine	13,022.37	672.65	1,178.76	276.85	599.47	193.41	11,114.92	608.21
Redwood	50,914.19	3,120.12	1,737.20	542.13	949.16	471.95	46,226.96	3,061.19
Western juniper	5,041.10	636.28	--	--	1,469.20	542.99	4,398.15	576.61
Western larch	--	--	--	--	--	--	--	--
Western white pine	15,284.80	2,754.72					15,284.80	2,754.72
Other western softwoods	32,739.13	6,818.36	1,398.90	1,398.90	--	--	27,542.00	6,289.39
Other softwoods	--	--	--	--	--	--	--	--
Total	25,638.34	477.13	2,326.06	276.28	1,405.65	256.31	23,434.67	449.33
Hardwoods:								
Alder / maple	23,873.59	2,340.75	6,277.89	2,465.10	1,610.54	774.17	16,774.35	2,352.92
Aspen / birch	11,625.22	11,625.22	6,211.62	1,712.83	2,267.77	2,267.77	5,881.14	1,755.99
Elm / ash / cottonwood	--	--	--	--	--	--	--	--
Tanoak / laurel	23,842.14	1,346.06	7,538.88	1,012.39	3,566.80	1,004.27	19,582.29	1,146.85
Western oak	12,307.74	624.85	4,520.49	543.72	1,551.88	414.96	8,799.40	464.56
Woodland hardwoods	2,377.41	298.66	--	--	--	--	1,898.08	386.31
Eucalyptus	--	--	--	--	--	--	--	--
Other hardwoods	23,620.74	3,600.53	2,939.17	1,189.14	1,051.94	333.59	12,415.36	2,349.07
Total	17,805.73	712.64	5,234.86	461.99	1,861.50	321.07	12,895.89	533.10
Nonstocked							734.36	185.94
All forest types	24,173.12	411.67	4,273.13	335.47	1,601.44	201.04	20,135.34	358.56

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 board feet per acre was estimated;

the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes sawtimber-sized trees that are ≥ 9 inches diameter at breast height for softwood species and ≥ 11 inches diameter at breast height for hardwood species.

Table 59—Aboveground biomass of live trees^a on forest land, by ownership and land status, California, 2006-2015

Ownership	Land Status														
	Unreserved forests							Reserved forests							
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest land		
Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>															
USDA Forest Service:															
National Forest	806,254.5	16,935.7	56,998.7	4,417.2	863,253.2	16,519.5	274,971.6	13,053.4	36,657.5	3,862.6	311,629.1	12,939.6	1,174,882.3	18,875.4	
Other federal government:															
Bureau of Land Management	23,714.1	4,567.4	13,604.7	1,889.3	37,318.8	4,899.1	5,550.3	2,176.0	2,725.6	663.6	8,275.9	2,274.9	45,594.7	5,348.7	
Departments of Defense or Energy	550.7	429.2	1,691.9	605.1	2,242.7	741.8	--	--	312.9	323.7	312.9	323.7	2,555.5	809.4	
National Park Service	--	--	--	--	--	--	127,138.5	12,145.7	13,305.2	2,435.5	140,443.7	12,265.8	140,443.7	12,265.8	
U.S. Fish and Wildlife Service	--	--	--	--	--	--	57.4	58.7	30.2	30.4	87.6	66.1	87.6	66.1	
Other federal	--	--	1,065.7	339.9	1,065.7	339.9	--	--	170.6	117.1	170.6	117.1	1,236.3	359.5	
Total	24,264.8	4,580.6	16,362.3	2,001.3	40,627.1	4,951.4	132,746.1	12,236.4	16,544.6	2,515.0	149,290.7	12,342.5	189,917.8	12,535.6	
State and local government:															
Local	5,491.2	2,385.2	4,443.0	1,152.5	9,934.2	2,666.0	7,461.4	2,983.6	7,293.7	1,614.8	14,755.1	3,302.4	24,689.3	4,230.1	
State	16,444.7	4,356.5	1,304.0	855.2	17,748.6	4,368.6	62,525.9	13,711.6	10,008.1	2,490.5	72,534.0	13,858.6	90,282.7	13,037.2	
Other public	--	--	46.5	42.1	46.5	42.1	684.9	762.7	80.4	87.0	765.3	767.7	811.8	768.8	
Total	21,935.8	4,942.5	5,793.5	1,435.7	27,729.3	5,094.3	70,672.3	14,002.9	17,382.2	2,916.4	88,054.5	14,173.7	115,783.8	13,541.5	
Corporate private	319,526.7	12,541.3	26,418.8	2,970.4	345,945.5	12,774.7	--	--	--	--	--	--	345,945.5	12,774.7	
Noncorporate private:															
Nongovernmental conservation or natural resource organizations	15,299.0	2,788.4	2,193.5	552.9	17,492.5	2,842.7	--	--	--	--	--	--	17,492.5	2,842.7	
Unincorporated partnerships, associations, clubs	14,605.0	3,632.2	2,551.2	836.7	17,156.2	3,734.9	--	--	--	--	--	--	17,156.2	3,734.9	
Native American	22,817.7	5,065.8	1,164.1	561.2	23,981.8	5,093.2	--	--	--	--	--	--	23,981.8	5,093.2	
Individual	234,102.5	13,145.0	118,853.3	5,456.3	352,955.7	13,739.9	--	--	--	--	--	--	352,955.7	13,739.9	
Total	286,824.2	14,180.1	124,762.0	5,521.1	411,586.2	14,662.0	--	--	--	--	--	--	411,586.2	14,662.0	
All private	606,350.9	15,265.5	151,180.9	6,079.8	757,531.8	15,221.4	--	--	--	--	--	--	757,531.8	15,221.4	
All owners	1,458,806.0	23,218.1	230,335.3	7,878.5	1,689,141.3	22,869.9	478,390.0	22,694.5	70,584.3	5,447.2	548,974.3	22,782.7	2,238,115.7	28,955.7	

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 60—Aboveground biomass of dead trees^a on forest land, by ownership and land status, California, 2006-2015

Ownership	Land Status														
	Unreserved forests							Reserved forests							
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest land		
Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>															
USDA Forest Service:															
National Forest	103,838.5	4,521.6	5,399.7	580.1	109,238.2	4,517.7	47,156.9	3,285.2	5,519.0	794.6	52,675.9	3,302.9	161,914.1	5,495.1	
Other federal government:															
Bureau of Land Management	1,876.7	668.6	991.0	199.4	2,867.7	685.4	524.5	320.7	212.4	70.5	736.8	328.4	3,604.6	759.0	
Departments of Defense or Energy	--	--	65.7	40.1	65.7	40.1	--	--	--	--	--	--	65.7	40.1	
National Park Service	--	--	--	--	--	--	22,536.6	2,788.8	1,481.3	348.6	24,017.9	2,804.3	24,017.9	2,804.3	
U.S. Fish and Wildlife Service	--	--	--	--	--	--	24.7	25.3	--	--	24.7	25.3	24.7	25.3	
Other federal	--	--	138.0	114.7	138.0	114.7	--	--	2.5	2.8	2.5	2.8	140.5	114.8	
Total	1,876.7	668.6	1,194.7	233.4	3,071.4	696.0	23,085.8	2,798.3	1,696.2	354.2	24,782.0	2,813.6	27,853.4	2,838.9	
State and local government:															
Local	282.0	122.5	168.0	80.7	450.0	146.7	462.1	249.4	248.2	103.7	710.3	269.8	1,160.3	306.1	
State	1,246.3	606.2	65.1	38.0	1,311.4	607.4	3,740.5	836.4	708.4	251.9	4,448.9	867.6	5,760.3	959.2	
Other public	--	--	--	--	--	--	11.2	12.5	4.4	4.8	15.7	13.4	15.7	13.4	
Total	1,528.3	618.0	233.1	89.2	1,761.4	624.4	4,213.8	869.9	961.0	271.8	5,174.8	905.0	6,936.2	1,001.0	
Corporate private	27,652.2	2,563.7	1,139.3	222.4	28,791.5	2,570.5	--	--	--	--	--	--	28,791.5	2,570.5	
Noncorporate private:															
Nongovernmental conservation or natural resource organizations	1,071.7	351.4	112.2	53.4	1,183.9	355.4	--	--	--	--	--	--	1,183.9	355.4	
Unincorporated partnerships, associations, clubs	588.7	244.1	65.3	37.4	654.1	246.8	--	--	--	--	--	--	654.1	246.8	
Native American	1,420.2	540.6	32.4	29.2	1,452.6	541.4	--	--	--	--	--	--	1,452.6	541.4	
Individual	12,189.4	1,378.0	5,106.0	452.1	17,295.3	1,441.3	--	--	--	--	--	--	17,295.3	1,441.3	
Total	15,269.9	1,527.7	5,315.9	456.3	20,585.8	1,584.3	--	--	--	--	--	--	20,585.8	1,584.3	
All private	42,922.1	2,892.6	6,455.2	504.3	49,377.3	2,921.2	--	--	--	--	--	--	49,377.3	2,921.2	
All owners	150,165.7	5,422.6	13,282.6	807.0	163,448.3	5,436.0	74,456.5	4,401.0	8,176.2	910.8	82,632.7	4,429.5	246,081.0	6,851.2	

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory. Aboveground biomass is estimated from ground to actual height, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 61—Aboveground biomass of live trees^a on forest land, by county and land status, California, 2006–2015

County	Land Status																
	Unreserved forests								Reserved forests								
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest land				
Thousands tons																	
Total		SE		Total		SE		Total		SE		Total		SE		Total	
California:																	
Alameda	609.2	565.7	3,156.4	1,032.0	3,765.6	1,219.2	469.9	417.7	1,592.8	661.8	2,062.7	744.5	5,828.2	1,422.2			
Alpine	7,734.9	2,056.1	895.2	373.8	8,630.1	2,097.1	13,534.7	3,125.9	1,123.4	445.2	14,658.2	3,158.4	23,288.2	3,792.2			
Amador	7,572.9	2,385.0	3,173.3	914.6	10,746.2	2,553.6	1,085.3	813.4	50.7	51.7	1,136.0	815.0	11,882.2	2,680.5			
Butte	42,015.2	6,144.5	6,085.5	1,689.1	48,100.7	6,359.0	--	--	672.0	430.1	672.0	430.1	48,772.7	6,373.5			
Calaveras	21,199.1	4,050.6	6,879.3	1,220.3	28,078.4	4,226.2	1,515.5	1,451.9	--	--	1,515.5	1,451.9	29,593.9	4,468.7			
Colusa	2,722.0	1,278.5	2,156.5	520.6	4,878.5	1,376.1	--	--	--	--	--	--	4,878.5	1,376.1			
Contra Costa	--	--	1,876.9	779.1	1,876.9	779.1	--	--	1,173.3	652.3	1,173.3	652.3	3,050.2	1,004.8			
Del Norte	24,645.6	4,437.5	995.5	696.9	25,641.1	4,481.7	54,736.4	13,891.2	1,210.0	462.0	55,946.4	13,897.9	81,587.5	14,577.8			
El Dorado	66,892.7	7,579.7	5,253.5	1,430.0	72,146.2	7,704.0	6,174.3	3,190.5	758.0	440.7	6,932.3	3,220.8	79,078.4	8,349.5			
Fresno	28,310.4	4,992.7	4,897.3	913.8	33,207.7	5,065.7	41,297.0	6,400.8	6,827.6	1,731.0	48,118.3	6,592.3	81,326.0	8,286.6			
Glenn	8,671.4	2,626.2	3,005.8	1,108.7	11,677.2	2,850.3	211.8	220.5	289.1	294.9	500.9	368.3	12,178.1	2,874.0			
Humboldt	175,019.2	12,669.2	7,199.9	2,348.3	182,219.0	12,865.4	49,047.7	12,193.2	--	--	49,047.7	12,193.2	231,266.7	17,664.8			
Imperial	--	--	71.6	36.0	71.6	36.0	--	--	73.8	100.7	73.8	100.7	145.4	106.9			
Inyo	476.2	377.2	2,144.7	498.8	2,620.9	625.4	478.7	266.2	3,114.5	633.6	3,593.2	699.9	6,214.1	935.9			
Kern	7,136.6	1,785.8	10,999.4	1,633.3	18,136.1	2,428.6	184.3	205.9	677.4	373.8	861.8	426.7	18,997.8	2,465.8			
Kings	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Lake	12,654.9	2,717.7	3,206.6	928.8	15,861.5	2,869.6	2,162.2	1,229.7	878.5	522.1	3,040.7	1,334.3	18,902.2	3,164.6			
Lassen	40,282.2	4,090.9	3,734.2	559.0	44,016.4	4,128.4	3,231.4	1,479.4	--	--	3,231.4	1,479.4	47,247.8	4,384.4			
Los Angeles	724.2	486.8	1,749.0	560.2	2,473.1	742.1	1,168.1	621.3	607.4	331.7	1,775.5	698.6	4,248.6	1,018.7			
Madera	26,409.1	5,043.2	4,569.9	1,114.5	30,979.0	5,159.4	18,985.6	4,710.9	1,302.0	639.4	20,287.6	4,748.9	51,266.6	7,012.2			
Marin	3,936.7	2,648.9	1,105.7	531.9	5,042.4	2,701.7	3,912.0	2,426.4	811.1	337.9	4,723.2	2,449.8	9,765.5	3,647.0			
Mariposa	10,984.0	2,938.8	7,947.2	1,636.4	18,931.2	3,359.9	22,746.7	4,488.4	1,360.2	686.0	24,106.9	4,524.0	43,038.2	5,629.9			
Mendocino	135,168.0	10,879.5	20,985.9	3,331.0	156,153.9	11,350.2	6,416.0	2,456.0	4,269.2	2,252.4	10,685.3	3,305.9	166,839.1	11,799.8			
Merced	--	--	689.0	373.5	689.0	373.5	--	--	64.6	56.0	64.6	56.0	753.6	377.6			
Modoc	25,626.0	3,071.0	5,999.6	782.0	31,625.6	3,173.6	3,239.3	1,756.1	167.0	114.9	3,406.3	1,758.7	35,031.9	3,628.3			
Mono	8,152.6	1,741.6	6,225.3	1,234.7	14,377.9	2,117.2	972.6	568.5	4,986.2	1,307.4	5,958.8	1,425.7	20,336.7	2,529.3			
Monterey	3,863.7	2,624.9	9,200.6	1,612.6	13,064.2	3,080.6	8,091.1	5,112.2	3,615.5	1,331.8	11,706.6	5,359.8	24,770.8	6,182.5			
Napa	5,434.6	1,930.7	4,145.1	1,146.6	9,579.7	2,245.2	--	--	759.7	424.1	759.7	424.1	10,339.5	2,282.6			
Nevada	28,072.1	4,530.0	2,354.2	712.9	30,426.3	4,584.4	155.4	173.1	132.4	130.4	287.8	216.7	30,714.2	4,595.6			
Orange	--	--	14.1	14.4	14.1	14.4	--	--	17.9	24.4	17.9	24.4	32.0	28.4			
Placer	41,921.9	5,948.7	5,322.3	1,515.7	47,244.2	6,132.4	2,868.6	1,225.7	293.2	170.6	3,161.8	1,234.2	50,406.0	6,263.0			
Plumas	111,239.4	9,047.1	797.5	295.6	112,036.9	9,057.5	4,861.8	2,493.4	--	--	4,861.8	2,493.4	116,898.7	9,394.4			
Riverside	306.4	299.6	280.9	164.7	587.4	341.9	857.9	585.0	32.2	18.5	890.1	585.3	1,477.5	675.9			
Sacramento	--	--	299.9	270.2	299.9	270.2	--	--	--	--	--	--	299.9	270.2			
San Benito	--	--	3,697.3	1,268.1	3,697.3	1,268.1	--	--	--	--	--	--	3,697.3	1,268.1			
San Bernardino	4,533.9	1,498.7	3,057.7	869.8	7,591.6	1,748.3	2,211.1	1,240.1	738.3	350.4	2,949.4	1,288.7	10,541.0	2,172.0			
San Diego	81.2	77.5	1,936.1	613.5	2,017.3	617.3	--	--	247.8	180.1	247.8	180.1	2,265.1	642.3			
San Francisco	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
San Joaquin	--	--	757.5	584.6	757.5	584.6	--	--	--	--	--	--	757.5	584.6			
San Luis Obispo	--	--	8,519.2	1,473.2	8,519.2	1,473.2	--	--	2,108.1	1,277.1	2,108.1	1,277.1	10,627.3	1,961.0			
San Mateo	9,444.8	3,641.1	59.8	57.7	9,504.6	3,641.5	4,303.3	2,422.5	1,431.9	692.4	5,735.3	2,479.5	15,239.8	4,694.4			
Santa Barbara	515.4	462.0	3,383.8	940.9	3,899.2	1,070.9	104.9	82.0	781.3	645.3	886.2	650.1	4,785.4	1,252.8			
Santa Clara	707.3	525.3	7,739.5	1,519.9	8,446.8	1,607.9	2,448.9	1,745.2	3,944.0	1,099.9	6,392.9	2,062.9	14,839.7	2,639.8			
Santa Cruz	23,796.7	5,524.8	1,985.9	955.7	25,782.5	5,606.7	11,739.8	5,004.5	165.1	264.2	11,905.0	5,025.3	37,687.5	7,462.4			
Shasta	85,757.2	7,346.6	14,392.9	2,074.6	100,150.0	7,670.0	11,441.4	2,500.1	2,978.5	1,136.6	14,419.9	2,802.9	114,569.9	8,122.9			
Sierra	42,555.9	5,925.9	45.5	45.4	42,601.4	5,926.1	112.7	108.2	--	--	112.7	108.2	42,714.1	5,926.4			
Siskiyou	178,057.5	11,348.1	7,119.5	1,289.6	185,177.0	11,397.9	37,248.8	5,973.7	3,206.3	1,728.4	40,455.2	6,149.8	225,632.2	12,880.8			
Solano	--	--	633.3	426.9	633.3	426.9	--	--	138.3	125.3	138.3	125.3	771.6	451.0			
Sonoma	36,375.2	6,725.3	6,261.2	1,395.3	42,636.4	6,861.4	4,717.2	2,667.4	1,063.2	622.2	5,780.3	2,739.0	48,416.7	7,386.0			
Stanislaus	--	--	1,437.5	435.9	1,437.5	435.9	--	--	292.0	218.8	292.0	218.8	1,729.5	487.7			
Sutter	--	--	387.8	363.0	387.8	363.0	--	--	--	--	--	--	387.8	363.0			
Tehama	40,005.3	5,606.6	8,809.4	1,374.1	48,814.7	5,766.2	5,079.7	2,106.1	535.7	307.6	5,615.3	2,128.4	54,430.0	6,146.5			
Trinity	117,119.9	9,865.2	5,582.7	1,420.1	122,702.6	9,967.8	51,392.7	6,316.1	2,629.0	1,139.9	54,021.8	6,371.0	176,724.3	11,824.6			
Tulare	14,802.3	3,232.9	4,213.2	960.2	19,015.5	3,371.9	63,706.2	8,295.9	10,831.5	2,281.3	74,537.7	8,556.8	93,553.2	9,186.9			
Tuolumne	43,339.5	5,967.8	7,043.9	1,669.9	50,383.4	6,188.4	34,784.1	6,001.4	1,563.0	1,014.0	36,347.2	6,086.0	86,730.5	8,668.0			
Ventura	136.0	103.8	1,520.4	503.1	1,656.5	513.7	701.1	453.1	873.9	477.1	1,575.0	657.9	3,231.5	834.7			
Yolo	--	--	1,061.7	347.8	1,061.7	347.8	--	--	--	--	--	--	1,061.7	347.8			
Yuba	13,796.5	3,820.3	3,271.9	1,035.0	17,068.4	3,964.3	--	--	196.5	205.5	196.5	205.5	17,264.9	3,969.5			
All counties	1,458,806.0	23,218.1	230,335.3	7,878.5	1,689,141.3	22,869.9	478,390.0	22,694.5	70,584.3	5,447.2	548,974.3	22,782.7 </					

Table 62—Aboveground biomass of dead trees^a on forest land, by county and land status, California, 2006–2015

County	Land Status													
	Unreserved forests						Reserved forests							
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest land	
Thousands tons														
California:	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Alameda	--	--	216.3	102.3	216.3	102.3	3.2	2.8	19.9	17.0	23.1	17.2	239.4	102.8
Alpine	1,343.8	384.7	23.7	13.5	1,367.6	384.9	1,642.9	431.9	132.2	58.4	1,775.1	435.5	3,142.7	581.2
Amador	1,328.2	636.3	103.8	50.4	1,432.1	638.2	183.1	119.5	--	--	183.1	119.5	1,615.1	649.3
Butte	2,636.7	698.9	350.1	122.8	2,986.8	709.8	--	--	24.1	20.5	24.1	20.5	3,010.9	710.1
Calaveras	2,030.6	984.4	386.3	92.8	2,416.9	989.0	46.7	44.7	--	--	46.7	44.7	2,463.5	990.0
Colusa	653.4	474.4	102.3	42.5	755.7	476.2	--	--	--	--	--	--	755.7	476.2
Contra Costa	--	--	5.5	3.9	5.5	3.9	--	--	0.9	0.8	0.9	0.8	6.3	4.0
Del Norte	3,182.6	869.3	127.2	91.1	3,309.8	872.6	4,631.8	1,132.0	158.2	67.8	4,789.9	1,134.0	8,099.8	1,428.5
El Dorado	7,537.5	1,179.9	169.1	62.8	7,706.7	1,181.3	1,294.9	750.1	113.7	75.0	1,408.7	753.9	9,115.3	1,401.3
Fresno	3,040.5	696.5	633.8	214.9	3,674.2	728.0	4,877.9	953.7	721.2	223.2	5,599.2	974.4	9,273.4	1,214.6
Glenn	1,200.0	567.5	107.0	62.2	1,307.1	570.9	58.0	60.4	--	--	58.0	60.4	1,365.1	574.1
Humboldt	18,658.0	2,679.9	155.3	63.2	18,813.2	2,680.5	6,548.2	1,985.5	--	--	6,548.2	1,985.5	25,361.5	3,335.0
Imperial	--	--	35.2	26.2	35.2	26.2	--	--	3.0	4.2	3.0	4.2	38.3	26.6
Inyo	128.7	87.8	327.2	108.8	455.9	139.8	39.4	39.3	354.5	130.5	393.8	136.3	849.7	195.1
Kern	1,317.4	542.6	914.3	284.0	2,231.7	612.2	1.4	1.6	102.2	56.1	103.6	56.1	2,335.3	614.8
Kings	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lake	1,213.4	413.7	227.5	103.6	1,440.9	425.4	44.8	41.0	58.9	35.6	103.7	54.3	1,544.7	428.9
Lassen	3,474.6	603.5	317.4	154.0	3,791.9	622.6	605.0	359.6	--	--	605.0	359.6	4,396.9	719.0
Los Angeles	106.2	84.1	284.2	125.6	390.4	151.1	184.9	176.9	115.6	79.9	300.5	194.1	690.9	246.0
Madera	3,356.1	1,103.1	161.0	60.6	3,517.1	1,104.7	3,709.8	1,222.4	153.8	94.4	3,863.6	1,225.8	7,380.7	1,650.2
Marin	219.3	174.7	102.9	81.8	322.2	192.9	350.5	280.9	7.3	4.9	357.8	281.0	680.0	340.8
Mariposa	758.9	281.2	420.0	145.0	1,178.9	316.1	5,278.4	1,270.6	217.6	122.1	5,496.0	1,275.3	6,674.9	1,312.8
Mendocino	8,625.3	1,032.1	518.6	140.0	9,143.9	1,040.6	722.4	505.7	160.4	77.4	882.8	511.4	10,026.7	1,159.2
Merced	--	--	18.6	19.0	18.6	19.0	--	--	--	--	--	--	18.6	19.0
Modoc	2,393.5	521.3	225.9	62.9	2,619.4	524.9	782.1	453.3	4.1	4.5	786.1	453.3	3,405.5	693.5
Mono	452.0	175.5	820.7	216.0	1,272.7	277.6	130.0	127.5	387.1	116.6	517.1	172.8	1,789.8	325.5
Monterey	367.9	239.7	403.2	127.0	771.1	271.2	10.0	8.0	1,348.2	599.8	1,358.2	599.6	2,129.4	658.1
Napa	291.7	138.1	134.3	69.7	426.0	154.7	--	--	150.5	110.4	150.5	110.4	576.5	189.9
Nevada	2,471.5	609.3	77.8	44.4	2,549.3	610.9	--	--	5.7	5.6	5.7	5.6	2,555.0	610.9
Orange	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Placer	4,844.8	878.1	276.0	128.3	5,120.8	887.0	450.5	302.2	22.2	19.9	472.7	302.9	5,593.5	937.3
Plumas	16,838.9	2,257.6	107.4	52.5	16,946.3	2,258.0	456.6	258.5	--	--	456.6	258.5	17,402.9	2,272.7
Riverside	--	--	50.0	28.3	50.0	28.3	89.8	86.1	3.2	3.3	93.0	86.2	143.0	90.5
Sacramento	--	--	--	--	--	--	--	--	--	--	--	--	--	--
San Benito	--	--	111.5	58.4	111.5	58.4	--	--	--	--	--	--	111.5	58.4
San Bernardino	1,526.1	624.4	334.6	128.6	1,860.8	640.1	786.7	513.7	262.1	136.1	1,048.7	531.4	2,909.5	831.9
San Diego	284.5	237.0	241.0	113.0	525.5	261.5	349.1	390.3	286.0	195.2	635.1	436.4	1,160.5	508.7
San Francisco	--	--	--	--	--	--	--	--	--	--	--	--	--	--
San Joaquin	--	--	49.4	50.6	49.4	50.6	--	--	--	--	--	--	49.4	50.6
San Luis Obispo	--	--	401.5	124.0	401.5	124.0	--	--	--	--	--	--	401.5	124.0
San Mateo	421.4	196.6	--	--	421.4	196.6	382.7	241.7	87.7	92.4	470.4	258.5	891.8	324.8
Santa Barbara	36.5	27.4	328.3	113.3	364.7	117.7	394.0	316.8	132.5	107.9	526.5	334.7	891.2	354.8
Santa Clara	24.8	22.3	467.6	223.6	492.4	224.7	76.1	63.1	212.9	108.1	289.0	125.2	781.4	256.9
Santa Cruz	866.4	280.2	75.9	70.4	942.3	288.9	173.4	82.7	0.8	1.2	174.2	82.6	1,116.4	299.7
Shasta	6,830.5	986.5	703.0	188.3	7,533.5	1,004.9	1,907.9	661.6	256.4	153.3	2,164.3	679.1	9,697.8	1,210.7
Sierra	4,601.7	856.2	65.9	67.2	4,667.6	858.8	--	--	--	--	--	--	4,667.6	858.8
Siskiyou	20,144.2	2,581.7	615.2	193.9	20,759.5	2,586.3	8,147.8	1,877.4	313.1	159.4	8,460.9	1,880.5	29,220.4	3,195.0
Solano	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sonoma	1,569.5	376.3	94.5	39.9	1,664.1	378.3	785.1	483.1	8.9	9.7	794.1	483.2	2,458.1	613.3
Stanislaus	--	--	20.9	12.0	20.9	12.0	--	--	14.5	9.8	14.5	9.8	35.4	15.5
Sutter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tehama	4,716.6	969.4	361.5	136.4	5,078.1	978.8	1,039.7	441.0	106.7	75.7	1,146.3	447.4	6,224.5	1,076.2
Trinity	11,511.7	1,414.7	574.5	177.4	12,086.2	1,425.3	10,530.0	1,750.4	71.6	40.5	10,601.6	1,751.2	22,687.8	2,257.3
Tulare	3,220.1	1,029.2	309.7	105.4	3,529.8	1,034.5	9,666.1	1,524.1	1,627.9	388.0	11,294.1	1,569.2	14,823.8	1,877.4
Tuolumne	5,107.2	1,248.5	391.4	111.6	5,498.6	1,253.1	7,387.8	1,839.8	295.3	205.1	7,683.1	1,850.2	13,181.7	2,234.2
Ventura	13.5	12.4	261.3	129.2	274.8	129.8	687.7	535.6	180.9	134.0	868.7	552.1	1,143.5	567.1
Yolo	--	--	36.8	32.6	36.8	32.6	--	--	--	--	--	--	36.8	32.6
Yuba	819.1	369.8	35.6	16.9	854.8	370.1	--	--	54.4	60.3	54.4	60.3	909.2	375.0
All counties	150,165.7	5,422.6	13,282.6	807.0	163,448.3	5,436.0	74,456.5	4,401.0	8,176.2	910.8	82,632.7	4,429.5	246,081.0	6,851.2

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — or not present = less than 50 bone-dry tons was estimated.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory. Aboveground biomass is estimated from ground to actual height, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 63—Aboveground biomass of live trees^a on forest land, by forest type group and ownership group, California, 2006-2015

Forest type group	Ownership Group														
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All private		All owners		
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	
	Thousand tons														
Softwoods:															
California mixed conifer	582,199.0	18,123.9	62,679.4	7,556.0	12,012.2	3,545.0	107,417.1	7,353.6	42,012.7	4,889.5	149,429.8	8,469.8	806,320.5	21,237.5	
Douglas-fir	51,327.3	7,931.7	10,793.9	3,896.0	8,149.1	2,987.3	35,602.0	4,939.5	39,775.7	6,147.8	75,377.7	7,736.3	145,647.9	12,135.9	
Fir / spruce / mtn.hemlock	198,495.3	13,950.5	28,616.4	5,518.1	2,262.9	1,327.3	14,953.2	3,003.7	4,447.8	1,685.2	19,401.1	3,426.8	248,775.6	15,463.8	
Lodgepole pine	43,800.0	4,494.5	16,760.0	3,191.9	510.6	439.9	1,375.4	674.3	2,493.4	1,124.2	3,868.8	1,310.3	64,939.4	5,654.3	
Pinyon / juniper woodlands	7,694.7	951.7	4,360.9	600.1	528.2	247.5	220.9	101.2	647.3	225.5	868.2	247.1	13,452.0	1,176.4	
Ponderosa pine	65,544.9	5,067.7	2,717.5	856.1	865.8	533.0	15,045.9	2,216.0	19,477.3	2,778.5	34,523.3	3,505.8	103,651.4	6,238.0	
Redwood	7,920.8	5,106.9	18,917.3	9,146.7	43,839.3	14,217.8	54,791.2	7,805.8	48,597.6	8,521.1	103,388.9	11,314.5	174,066.3	21,041.2	
Western juniper	12,063.2	1,487.6	3,496.1	582.2	364.4	395.1	621.2	190.2	3,148.8	553.7	3,770.0	583.9	19,693.6	1,746.4	
Western white pine	7,161.8	1,715.1	496.6	348.6	--	--	--	--	--	--	--	--	7,658.4	1,750.2	
Other western softwoods	8,447.1	1,479.4	4,205.5	1,209.3	393.2	391.5	3,991.5	1,965.7	4,757.2	2,192.3	8,748.7	2,944.5	21,794.4	3,535.8	
Total	984,654.0	20,284.4	153,043.5	12,502.2	68,925.7	13,704.2	234,018.6	11,379.9	165,357.9	11,786.9	399,376.4	14,612.0	1,605,999.6	30,393.5	
Hardwoods:															
Alder / maple	2,042.7	919.3	4,615.6	1,966.3	1,021.0	831.6	7,527.3	2,269.8	3,670.7	1,308.4	11,198.0	2,612.0	18,877.3	3,492.7	
Aspen / birch	1,397.9	613.1	12.2	9.2	47.1	52.4	370.0	355.7	227.3	185.3	597.4	401.1	2,054.6	734.6	
Elm / ash / cottonwood	232.0	240.4	--	--	373.2	311.7	42.0	43.0	778.8	581.0	820.7	582.6	1,425.9	703.1	
Tanoak / laurel	48,086.8	6,945.7	7,780.7	2,650.5	21,101.1	4,998.5	53,307.5	6,428.1	79,822.8	8,336.9	133,130.3	10,212.6	210,098.9	13,510.0	
Western oak	126,802.4	8,117.0	22,428.7	2,816.3	18,636.4	2,327.4	45,939.8	4,375.9	152,341.2	6,420.6	198,281.0	7,475.3	366,148.5	11,527.8	
Woodland hardwoods	1,564.4	409.2	515.2	180.6	445.6	248.5	64.1	61.7	348.3	208.0	412.4	217.0	2,937.7	555.7	
Other hardwoods	8,661.3	2,869.8	1,484.3	841.1	5,233.7	2,411.2	3,877.6	1,494.2	8,964.2	2,163.2	12,841.8	2,618.8	28,221.1	4,742.9	
Total	188,787.4	10,794.3	36,836.7	4,345.4	46,858.1	5,739.7	111,128.2	8,065.6	246,153.4	10,326.1	357,281.6	12,229.9	629,763.8	17,591.1	
Nonstocked	1,440.9	368.4	37.6	18.8	--	--	798.8	278.5	75.0	42.0	873.8	281.6	2,352.3	464.1	
All forest types	1,174,882.3	18,875.4	189,917.8	12,535.6	115,783.8	13,541.5	345,945.5	12,774.7	411,586.2	14,662.0	757,531.8	15,221.4	2,238,115.7	28,955.7	

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes all live trees >= 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 64—Aboveground biomass of dead trees^a on forest land, by forest type group and ownership group, California, 2006–2015

Forest type group	Ownership Group													
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All private		All owners	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>														
Softwoods:														
California mixed conifer	70,799.2	3,551.1	10,139.5	1,616.1	1,058.3	590.3	6,812.2	756.2	2,072.5	492.7	8,884.8	893.4	90,881.7	4,017.0
Douglas-fir	5,731.0	1,141.9	627.6	323.5	720.3	436.9	2,688.1	622.3	2,383.9	569.1	5,072.0	839.3	12,150.9	1,517.8
Fir / spruce / mtn.hemlock	31,018.1	2,913.5	6,775.9	1,737.0	289.6	177.8	1,133.9	437.0	494.5	236.3	1,628.4	496.1	39,712.0	3,434.0
Lodgepole pine	5,501.0	756.6	2,160.0	531.6	99.0	78.6	431.5	272.9	266.1	125.5	697.6	300.1	8,457.6	972.5
Pinyon / juniper woodlands	815.7	146.2	312.4	63.2	36.2	20.1	17.5	12.0	65.7	29.6	83.2	31.9	1,247.5	163.6
Ponderosa pine	3,617.7	542.0	215.1	151.5	14.0	17.7	451.6	106.6	488.9	128.1	940.4	166.0	4,787.2	586.7
Redwood	10.0	8.0	2,067.8	1,388.8	1,943.5	659.8	6,379.2	1,671.5	3,843.5	1,141.2	10,222.8	2,012.8	14,244.0	2,532.9
Western juniper	962.5	234.2	163.4	60.9	41.7	66.8	34.7	21.1	124.4	42.5	159.1	47.4	1,326.8	255.4
Western white pine	1,559.2	393.8	120.8	91.7	--	--	--	--	--	--	--	--	1,680.0	404.4
Other western softwoods	1,265.9	319.3	556.0	230.5	34.9	28.2	1,365.0	1,061.0	436.1	252.3	1,801.1	1,090.6	3,657.9	1,159.9
Total	121,280.3	4,446.9	23,138.4	2,736.5	4,237.6	897.3	19,313.8	2,235.3	10,175.6	1,410.1	29,489.4	2,596.3	178,145.8	5,855.9
Hardwoods:														
Alder / maple	412.9	209.2	840.1	651.1	20.1	15.3	1,646.3	717.3	259.7	120.5	1,906.0	726.7	3,179.2	998.0
Aspen / birch	110.3	52.9	--	--	7.5	8.4	--	--	--	--	--	--	117.9	53.5
Elm / ash / cottonwood	5.1	5.3	--	--	3.0	4.2	--	--	56.0	51.0	56.0	51.0	64.2	51.5
Tanoak / laurel	5,781.6	1,401.0	1,379.4	700.1	1,088.1	360.6	4,610.4	1,093.0	3,217.4	536.5	7,827.8	1,209.9	16,076.9	2,010.0
Western oak	17,448.2	2,363.3	2,108.8	439.9	1,050.3	282.3	2,363.4	335.1	6,277.1	527.2	8,640.5	618.0	29,247.7	2,495.4
Woodland hardwoods	610.1	215.8	132.9	57.1	46.6	27.9	2.6	2.5	40.6	26.3	43.2	26.4	832.7	226.5
Other hardwoods	1,663.4	543.8	134.7	132.4	133.8	88.1	200.1	87.0	496.4	179.2	696.5	198.9	2,628.5	600.5
Total	26,031.7	2,794.0	4,595.9	1,034.5	2,349.5	460.3	8,822.7	1,346.1	10,347.2	773.9	19,170.0	1,531.6	52,147.0	3,376.2
Nonstocked	14,602.2	2,768.6	119.0	62.4	349.1	390.3	655.0	274.0	63.0	27.9	718.0	275.3	15,788.2	2,810.2
All forest types	161,914.1	5,495.1	27,853.4	2,838.9	6,936.2	1,001.0	28,791.5	2,570.5	20,585.8	1,584.3	49,377.3	2,921.2	246,081.0	6,851.2

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory. Aboveground biomass is estimated from ground to actual height, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 65—Aboveground biomass of live trees^a on forest land, by forest type group and stand size class, California, 2006-2015

Forest type group	Stand size class								All classes	
	Large-diameter stands		Medium-diameter stands		Small-diameter stands					
	Total	SE	Total	SE	Total	SE	Total	SE		
<i>Thousand tons</i>										
Softwoods:										
California mixed conifer	799,540.0	21,258.4	3,668.8	921.2	3,111.6	540.6	806,320.5	21,237.5		
Douglas-fir	141,187.1	12,069.6	3,198.2	1,004.5	1,262.6	561.1	145,647.9	12,135.9		
Fir / spruce / mtn. hemlock	246,427.0	15,442.8	1,079.2	467.3	1,269.5	407.7	248,775.6	15,463.8		
Lodgepole pine	62,704.1	5,603.7	1,206.6	674.8	1,028.7	449.9	64,939.4	5,654.3		
Pinyon / juniper woodlands	13,000.0	1,161.6	365.5	216.0	86.5	43.8	13,452.0	1,176.4		
Ponderosa pine	100,459.6	6,226.8	2,416.7	498.2	775.1	228.5	103,651.4	6,238.0		
Redwood	173,081.0	21,040.8	542.8	293.0	442.5	209.9	174,066.3	21,041.2		
Western juniper	18,539.9	1,733.0	672.4	168.7	481.4	150.7	19,693.6	1,746.4		
Western white pine	7,038.2	1,726.7	--	--	620.2	286.5	7,658.4	1,750.2		
Other western softwoods	19,407.7	3,488.2	1,396.6	486.9	990.1	320.5	21,794.4	3,535.8		
Total	1,581,384.6	30,487.2	14,546.9	1,774.6	10,068.1	1,124.8	1,605,999.6	30,393.5		
Hardwoods:										
Alder / maple	15,870.9	3,277.7	2,398.2	1,131.0	608.2	441.8	18,877.3	3,492.7		
Aspen / birch	933.2	565.3	726.4	424.2	395.1	200.4	2,054.6	734.6		
Elm / ash / cottonwood	1,425.9	703.1	--	--	--	--	1,425.9	703.1		
Tanoak / laurel	180,276.2	13,041.5	25,941.3	3,797.0	3,881.3	901.2	210,098.9	13,510.0		
Western oak	246,484.1	10,462.0	104,648.7	5,671.5	15,015.6	1,501.5	366,148.5	11,527.8		
Woodland hardwoods	2,623.6	520.6	308.2	195.1	5.8	3.1	2,937.7	555.7		
Other hardwoods	22,750.5	4,569.4	4,326.7	1,273.7	1,143.8	337.8	28,221.1	4,742.9		
Total	470,364.4	16,881.4	138,349.6	6,963.2	21,049.8	1,839.5	629,763.8	17,591.1		
Nonstocked	--	--	--	--	--	--	2,352.3	464.1		
All forest types	2,051,749.0	30,114.7	152,896.5	7,156.9	31,118.0	2,142.8	2,238,115.7	28,955.7		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 66—Aboveground biomass of dead trees^a on forest land, by forest type group and stand size class, California, 2006–2015

Forest type group	Stand size class						All classes	
	Large-diameter stands		Medium-diameter stands		Small-diameter stands			
	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>								
Softwoods:								
California mixed conifer	88,922.9	3,982.2	437.8	157.7	1,521.0	570.1	90,881.7	4,017.0
Douglas-fir	11,253.9	1,443.1	115.5	60.7	781.5	457.5	12,150.9	1,517.8
Fir / spruce / mtn. hemlock	36,019.4	2,974.9	387.1	269.5	3,305.5	1,718.6	39,712.0	3,434.0
Lodgepole pine	8,328.2	971.0	31.6	21.5	97.8	54.6	8,457.6	972.5
Pinyon / juniper woodlands	1,106.9	146.7	24.0	10.4	116.7	72.8	1,247.5	163.6
Ponderosa pine	4,518.1	579.4	98.2	42.2	170.9	85.3	4,787.2	586.7
Redwood	13,944.1	2,515.1	199.2	118.3	100.8	75.4	14,244.0	2,532.9
Western juniper	1,266.3	253.8	59.0	29.7	1.5	1.4	1,326.8	255.4
Western white pine	1,463.1	390.2	--	--	216.9	106.6	1,680.0	404.4
Other western softwoods	3,316.0	1,145.2	291.2	180.2	50.7	38.0	3,657.9	1,159.9
Total	170,139.0	5,557.6	1,643.6	388.0	6,363.2	1,876.3	178,145.8	5,855.9
Hardwoods:								
Alder / maple	2,109.8	787.8	208.2	181.9	861.2	587.3	3,179.2	998.0
Aspen / birch	90.7	50.2	23.9	18.4	3.3	2.4	117.9	53.5
Elm / ash / cottonwood	64.2	51.5	--	--	--	--	64.2	51.5
Tanoak / laurel	11,329.2	1,431.3	1,599.1	634.8	3,148.6	1,287.7	16,076.9	2,010.0
Western oak	16,135.2	1,234.8	5,713.2	535.6	7,399.3	2,123.2	29,247.7	2,495.4
Woodland hardwoods	605.4	170.3	161.4	141.0	65.9	49.9	832.7	226.5
Other hardwoods	1,402.3	356.0	253.3	104.8	972.9	469.6	2,628.5	600.5
Total	31,736.9	2,058.3	7,959.0	866.6	12,451.2	2,595.1	52,147.0	3,376.2
Nonstocked	--	--	--	--	--	--	15,788.2	2,810.2
All forest types	201,875.8	5,701.9	9,602.6	950.3	18,814.4	3,186.0	246,081.0	6,851.2

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes all dead trees \geq 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory. Aboveground biomass is estimated from ground to actual height, includes stem wood, bark, and branches calculated with regional biomass equations.

Table 67—Aboveground biomass of live trees^a on forest land, by forest type group and stand age class, California, 2006-2015

Forest type group	Stand age class (years)													
	1-20		21-40		41-60		61-80		81-100		101-120		121-140	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>														
Softwoods:														
California mixed conifer	3,943.5	1,069.0	9,240.9	1,766.9	36,936.0	4,083.5	104,132.1	7,869.7	157,613.6	10,397.0	113,274.2	9,533.7	86,816.8	9,318.6
Douglas-fir	2,241.9	739.9	19,638.5	3,418.7	29,659.3	4,840.3	26,712.8	5,341.3	10,128.7	2,613.8	6,803.5	2,912.7	8,614.1	3,587.4
Fir / spruce / mtn. hemlock	389.1	210.8	822.9	385.7	9,204.5	2,173.1	27,189.3	4,600.5	39,044.5	5,368.7	32,883.8	5,646.5	24,724.0	4,872.1
Lodgepole pine	95.5	63.5	362.7	262.9	757.8	536.3	5,137.3	1,385.0	5,001.4	1,546.5	5,390.3	1,546.8	6,301.7	1,912.9
Pinyon / juniper woodlands	23.0	25.0	16.3	14.0	53.7	34.0	1,031.3	355.1	1,438.4	420.4	711.4	317.0	532.4	240.5
Ponderosa pine	1,495.2	389.5	7,725.0	1,342.1	11,098.8	2,158.1	15,786.9	2,299.8	32,763.4	3,559.7	16,517.0	2,688.2	8,363.5	2,237.0
Redwood	1,897.1	832.3	7,033.5	2,167.5	23,620.8	5,120.1	19,408.7	4,321.2	33,805.8	7,342.9	10,501.3	4,160.5	10,056.4	4,022.1
Western juniper	11.2	8.2	204.4	90.5	1,256.9	289.9	3,043.6	474.4	4,490.1	708.0	2,650.6	675.9	856.2	317.6
Western white pine	--	--	310.6	303.3	436.9	267.0	327.9	265.1	555.7	343.9	637.6	594.8	83.3	80.0
Other western softwoods	235.8	220.7	1,037.2	673.8	4,872.1	2,042.1	2,244.7	1,037.9	2,793.7	1,848.9	1,276.9	547.8	337.2	340.1
Total	10,332.3	1,614.8	46,392.1	4,640.3	117,896.8	8,739.0	205,014.8	11,523.8	287,635.4	14,321.3	190,646.6	12,391.5	146,685.8	12,075.3
Hardwoods:														
Alder / maple	1,190.0	627.1	5,773.0	1,886.6	5,317.2	2,037.4	1,739.4	1,182.8	1,854.7	1,020.6	978.9	965.3	305.7	286.1
Aspen / birch	--	--	319.5	221.7	497.7	364.5	264.7	188.3	--	--	--	--	637.9	513.0
Elm / ash / cottonwood	--	--	140.0	136.9	--	--	--	--	42.0	43.0	--	--	--	--
Tanoak / laurel	1,746.5	516.6	18,706.7	3,206.6	62,266.7	7,170.2	36,751.4	6,124.6	29,201.6	5,313.7	12,305.8	3,884.0	3,105.5	1,697.9
Western oak	3,022.0	664.1	7,694.4	1,472.4	28,748.5	3,110.8	49,651.3	4,605.0	57,405.5	5,244.6	34,886.1	4,845.1	17,564.7	3,122.0
Woodland hardwoods	--	--	2.0	2.0	107.6	66.5	484.7	211.7	234.9	128.1	121.4	111.5	--	--
Other hardwoods	143.9	109.1	2,094.3	1,116.9	3,647.5	1,441.7	6,246.0	2,278.2	3,945.8	1,871.4	2,039.1	1,516.7	2,855.5	1,971.2
Total	6,102.4	1,053.5	34,730.0	4,122.1	100,585.2	8,108.6	95,137.6	7,995.1	92,684.6	7,733.0	50,331.4	6,461.2	24,469.4	4,098.4
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All forest types	16,434.7	1,920.8	81,122.1	6,111.4	218,482.1	11,523.7	300,152.4	13,669.8	380,320.0	15,910.2	240,977.9	13,808.8	171,155.1	12,675.7

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 67—Aboveground biomass of live trees^a on forest land, by forest type group and stand age class, California, 2006-2015 (Continued)

Forest type group	Stand age class (years)											
	141-160		161-180		181-200		201+		Unknown		All classes	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>												
Softwoods:												
California mixed conifer	76,640.6	8,124.7	27,746.5	5,516.5	41,282.2	6,855.0	148,170.3	12,759.6	523.6	347.6	806,320.5	21,237.5
Douglas-fir	7,156.2	2,863.6	6,060.2	3,490.6	7,201.4	3,520.9	21,097.7	5,487.8	333.7	299.8	145,647.9	12,135.9
Fir / spruce / mtn. hemlock	21,779.1	4,803.2	14,289.5	4,027.4	15,646.0	4,772.5	62,714.3	9,405.3	88.6	75.5	248,775.6	15,463.8
Lodgepole pine	9,568.8	2,437.5	6,208.7	1,811.7	6,529.7	2,139.5	19,585.4	3,472.9	--	--	64,939.4	5,654.3
Pinyon / juniper woodlands	477.6	131.9	691.5	287.8	369.5	173.8	2,310.9	561.3	5,795.8	776.2	13,452.0	1,176.4
Ponderosa pine	4,770.4	1,520.5	454.2	294.7	587.2	362.2	3,985.2	1,350.5	104.6	102.4	103,651.4	6,238.0
Redwood	--	--	5,826.0	3,094.4	4,878.5	4,004.7	57,038.2	17,299.4	--	--	174,066.3	21,041.2
Western juniper	1,056.8	444.6	850.6	428.4	525.2	273.4	4,365.1	1,107.5	382.9	207.9	19,693.6	1,746.4
Western white pine	279.3	306.4	64.7	67.0	727.8	518.3	4,234.4	1,382.6	--	--	7,658.4	1,750.2
Other western softwoods	341.8	158.3	400.8	240.1	537.5	264.0	6,776.7	1,576.6	940.0	615.4	21,794.4	3,535.8
Total	122,070.7	10,225.0	62,592.8	8,453.1	78,285.0	10,085.2	330,278.2	23,945.0	8,169.2	1,116.8	1,605,999.6	30,393.5
Hardwoods:												
Alder / maple	621.8	627.0	--	--	--	--	--	--	1,096.5	571.4	18,877.3	3,492.7
Aspen / birch	--	--	--	--	--	--	257.8	235.2	76.9	61.4	2,054.6	734.6
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	1,243.9	688.3	1,425.9	703.1
Tanoak / laurel	17,200.1	5,185.3	1,581.3	1,160.5	2,121.3	1,338.0	11,258.3	3,437.2	13,853.5	2,804.6	210,098.9	13,510.0
Western oak	14,531.0	2,953.0	5,317.4	1,865.2	4,591.8	1,548.5	9,830.4	2,631.0	132,905.2	5,959.0	366,148.5	11,527.8
Woodland hardwoods	298.5	190.8	--	--	--	--	235.1	237.0	1,453.4	373.9	2,937.7	555.7
Other hardwoods	839.1	670.6	5.4	5.5	--	--	2,757.8	1,729.6	3,646.4	1,027.6	28,221.1	4,742.9
Total	33,490.6	6,011.4	6,904.1	2,194.6	6,713.1	2,046.5	24,339.5	4,667.9	154,275.9	6,645.6	629,763.8	17,591.1
Nonstocked	--	--	--	--	--	--	--	--	2,352.3	464.1	2,352.3	464.1
All forest types	155,561.3	11,767.4	69,496.9	8,715.5	84,998.0	10,282.9	354,617.7	24,256.5	164,797.4	6,754.9	2,238,115.7	28,955.7

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equation.

Table 68—Aboveground biomass of dead trees^a on forest land, by forest type group and stand age class, California, 2006-2015

Forest type group	Stand age class (years)													
	1-20		21-40		41-60		61-80		81-100		101-120		121-140	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>														
Softwoods:														
California mixed conifer	2,371.9	854.5	440.1	148.9	2,553.6	513.8	6,711.2	867.0	13,894.5	1,256.8	11,096.7	1,335.7	8,512.9	1,187.5
Douglas-fir	248.1	108.6	769.6	274.7	2,599.7	617.9	1,191.9	351.3	1,247.0	518.0	88.0	68.0	946.8	530.4
Fir / spruce / mtn. hemlock	2,768.6	1,641.9	107.5	67.4	607.0	209.2	3,424.3	812.2	5,441.5	1,147.7	4,963.4	1,020.5	4,690.6	1,160.2
Lodgepole pine	24.7	25.3	3.3	3.2	21.3	19.9	678.9	219.5	449.7	168.8	670.4	226.5	614.3	334.8
Pinyon / juniper woodlands	6.3	5.7	--	--	0.4	0.5	83.6	37.8	88.8	34.9	75.9	37.8	36.3	20.9
Ponderosa pine	275.6	102.5	48.5	24.6	340.3	103.1	666.0	226.6	1,147.5	255.7	1,055.5	352.1	359.6	151.9
Redwood	1,677.9	1,238.6	1,273.6	704.5	4,777.0	1,776.3	1,112.0	347.9	2,203.7	657.5	393.7	209.3	386.2	158.0
Western juniper	1.5	1.4	--	--	100.2	46.4	120.3	41.4	162.3	63.0	103.5	55.5	56.7	30.8
Western white pine	--	--	17.3	16.9	146.0	90.6	95.7	77.4	205.2	176.8	140.6	132.2	58.4	56.0
Other western softwoods	37.2	37.4	4.4	3.2	1,402.6	1,061.2	199.0	122.1	241.8	218.3	325.8	185.9	14.4	16.1
Total	7,411.6	2,222.9	2,664.3	772.9	12,547.9	2,223.2	14,283.0	1,345.1	25,082.0	1,917.8	18,913.4	1,744.8	15,676.3	1,776.3
Hardwoods:														
Alder / maple	1,009.8	613.2	861.1	411.5	754.4	637.0	85.1	59.3	61.0	55.0	156.8	154.6	93.0	87.0
Aspen / birch	--	--	16.3	16.3	10.8	8.7	14.1	12.6	--	--	--	--	55.5	44.6
Elm / ash / cottonwood	--	--	6.6	6.4	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	1,468.4	747.2	2,311.6	843.0	2,813.9	506.1	1,191.6	268.4	2,606.9	842.9	537.0	226.0	455.9	311.8
Western oak	5,253.4	2,030.1	469.0	158.4	1,369.0	221.1	3,814.0	692.7	4,273.8	582.6	2,127.0	383.9	1,607.3	384.4
Woodland hardwoods	46.2	46.1	--	--	33.2	19.4	250.4	148.1	159.0	134.1	21.1	19.4	--	--
Other hardwoods	318.0	205.6	250.6	106.8	162.8	77.3	367.5	163.7	318.7	193.5	192.8	139.9	121.5	87.7
Total	8,095.8	2,259.3	3,915.3	956.1	5,144.2	844.5	5,722.6	775.4	7,419.4	1,045.9	3,034.7	492.9	2,333.2	510.7
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All forest types	15,507.4	3,166.7	6,579.6	1,224.5	17,692.1	2,365.6	20,005.6	1,540.2	32,501.4	2,169.9	21,948.2	1,806.9	18,009.5	1,843.6

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory. Aboveground biomass is estimated from ground to actual height, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 68—Aboveground biomass of dead trees^a on forest land, by forest type group and stand age class, California, 2006-2015 (Continued)

Forest type group	Stand age class (years)										Unknown		All classes	
	141-160		161-180		181-200		201+							
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>														
Softwoods:														
California mixed conifer	11,205.9	1,457.2	4,129.3	1,099.8	6,305.3	1,246.3	23,024.5	2,739.4	635.9	546.8	90,881.7	4,017.0		
Douglas-fir	705.2	427.0	820.2	447.8	1,223.9	626.4	2,277.7	649.4	32.9	25.6	12,150.9	1,517.8		
Fir / spruce / mtn. hemlock	3,649.9	1,069.3	1,395.4	460.0	3,144.3	1,010.2	9,519.5	1,719.7	--	--	39,712.0	3,434.0		
Lodgepole pine	1,546.9	539.7	810.1	313.9	850.4	282.0	2,787.6	560.2	--	--	8,457.6	972.5		
Pinyon / juniper woodlands	71.3	47.8	49.6	25.6	45.6	25.7	119.0	37.5	670.7	135.1	1,247.5	163.6		
Ponderosa pine	334.2	135.0	52.2	36.9	74.5	78.5	422.9	167.8	10.3	10.1	4,787.2	586.7		
Redwood	--	--	308.9	228.6	310.2	243.5	1,801.0	740.6	--	--	14,244.0	2,532.9		
Western juniper	87.2	59.5	145.6	113.8	65.2	41.8	484.4	188.9	--	--	1,326.8	255.4		
Western white pine	--	--	65.8	68.1	183.8	144.8	767.2	268.6	--	--	1,680.0	404.4		
Other western softwoods	3.9	3.3	78.9	80.3	50.4	35.9	1,242.3	334.7	57.2	37.0	3,657.9	1,159.9		
Total	17,604.5	1,927.2	7,856.1	1,337.4	12,253.5	1,759.2	42,446.0	3,394.0	1,407.0	565.1	178,145.8	5,855.9		
Hardwoods:														
Alder / maple	82.0	82.6	--	--	--	--	--	--	76.0	57.2	3,179.2	998.0		
Aspen / birch	--	--	--	--	--	--	21.2	19.3	--	--	117.9	53.5		
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	57.6	51.1	64.2	51.5		
Tanoak / laurel	960.9	350.1	99.4	94.9	82.9	66.9	2,325.4	1,153.3	1,222.8	411.4	16,076.9	2,010.0		
Western oak	1,382.0	482.8	763.8	456.8	566.3	252.9	1,009.3	360.4	6,612.8	653.5	29,247.7	2,495.4		
Woodland hardwoods	77.0	58.3	--	--	--	--	4.8	4.9	241.0	72.1	832.7	226.5		
Other hardwoods	1.3	1.2	1.1	1.2	--	--	285.8	173.8	608.4	420.8	2,628.5	600.5		
Total	2,503.1	604.5	864.4	466.5	649.2	261.6	3,646.5	1,220.9	8,818.7	884.4	52,147.0	3,376.2		
Nonstocked	--	--	--	--	--	--	--	--	15,788.2	2,810.2	15,788.2	2,810.2		
All forest types	20,107.6	2,014.3	8,720.5	1,416.1	12,902.7	1,775.1	46,092.5	3,560.7	26,013.8	2,987.5	246,081.0	6,851.2		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50 bone-dry tons was estimated.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory. Aboveground biomass is estimated from ground to actual height, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 69—Aboveground biomass of live trees^a on forest land, by species group and diameter class, California, 2006–2015

Species group	Diameter class (inches)											
	1.0-2.9		3.0-4.9		5.0-6.9		7.0-8.9		9.0-10.9		11.0-12.9	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>												
Softwoods:												
Douglas-fir	1,319.6	80.6	3,461.7	239.0	10,800.3	434.9	15,075.5	628.2	18,680.2	776.9	21,571.1	953.0
Incense-cedar	421.1	38.6	1,137.4	103.9	2,688.9	152.5	3,234.0	187.6	4,066.7	253.6	4,483.3	302.0
Lodgepole pine	1,508.4	244.5	1,201.4	226.5	1,936.8	262.9	2,169.4	239.8	3,253.3	369.9	3,572.9	339.4
Ponderosa and Jeffrey pines	578.3	48.6	1,592.1	128.1	4,634.1	229.7	7,235.3	362.8	10,114.9	509.7	12,811.8	628.2
Redwood	328.7	48.9	553.9	84.9	1,251.7	119.3	2,029.1	193.6	2,807.3	283.3	3,937.2	396.8
Sitka spruce	22.4	15.9	26.8	18.7	41.1	21.3	88.4	39.2	68.0	33.2	108.5	71.6
Sugar pine	75.7	10.9	209.1	45.6	515.7	49.5	857.8	80.7	1,253.3	123.0	1,639.9	158.5
True fir	7,357.5	457.4	5,557.9	357.8	9,579.7	385.3	12,622.7	506.4	17,026.7	710.2	19,606.4	835.2
Western hemlock	36.2	15.6	118.0	54.7	101.8	47.2	128.9	42.1	167.4	62.7	215.0	81.1
Western juniper	121.4	20.4	400.7	74.8	628.5	55.4	1,018.3	88.9	1,341.9	116.9	1,287.5	122.6
Western white pine	273.2	59.3	168.6	42.9	246.9	34.3	290.2	44.0	369.8	62.5	368.9	66.2
Woodland softwoods	57.7	9.9	88.5	18.8	253.1	28.4	535.5	55.6	822.0	83.4	1,095.7	123.1
Other western softwoods	1,433.5	234.5	1,018.2	170.0	1,654.0	169.9	2,073.9	193.2	2,313.3	197.1	2,619.2	248.1
Total	13,533.7	592.6	15,534.4	557.1	34,332.7	717.6	47,358.8	950.5	62,284.9	1,247.3	73,317.4	1,497.5
Hardwoods:												
Cottonwood and aspen	308.4	81.5	254.0	97.8	155.7	55.1	132.3	40.6	134.6	41.3	167.8	56.9
Oak	4,945.3	309.2	15,136.2	937.3	27,610.3	1,010.9	36,118.1	1,248.6	37,801.6	1,328.3	34,174.8	1,292.5
Red alder	104.8	44.1	249.6	128.2	439.0	90.5	886.6	148.5	1,217.3	207.5	1,745.5	350.2
Tanoak	2,954.1	218.6	5,941.6	450.0	10,425.4	643.9	12,886.6	809.5	14,073.2	953.2	13,361.1	948.6
Woodland hardwoods	36.5	10.7	41.5	15.9	103.8	23.2	145.8	32.5	211.6	49.8	170.1	34.3
Other western hardwoods	1,886.2	155.5	4,158.0	393.9	5,907.6	331.5	7,393.8	411.1	8,160.5	484.5	7,915.0	526.8
Total	10,235.3	421.3	25,780.9	1,126.3	44,641.8	1,247.5	57,563.3	1,548.7	61,598.9	1,711.9	57,534.3	1,759.7
All species groups	23,769.0	714.9	41,315.3	1,244.0	78,974.5	1,412.4	104,922.0	1,752.6	123,883.8	2,033.5	130,851.7	2,196.0

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50 bone-dry tons was estimated.

^a Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 69—Aboveground biomass of live trees^a on forest land, by species group and diameter class, California, 2006-2015 (Continued)

Species group	Diameter class (inches)											
	13.0-14.9		15.0-16.9		17.0-18.9		19.0-20.9		21.0-22.9		23.0-24.9	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>												
Softwoods:												
Douglas-fir	23,288.3	1,079.6	23,776.2	1,182.3	26,165.1	1,371.6	23,814.6	1,439.5	20,608.1	1,379.8	18,807.9	1,162.7
Incense-cedar	4,092.4	304.8	4,836.8	378.0	4,852.0	418.1	5,383.4	485.6	4,806.1	537.9	4,259.4	427.0
Lodgepole pine	4,748.7	484.5	4,433.0	480.7	5,235.7	543.9	5,692.6	627.7	5,421.8	650.7	4,548.4	563.7
Ponderosa and Jeffrey pines	14,543.3	736.7	15,836.1	820.2	17,085.4	985.5	16,694.2	1,061.6	16,835.5	1,125.9	14,419.6	933.5
Redwood	4,628.9	439.7	5,678.1	560.9	5,869.1	586.4	6,814.3	816.4	7,031.9	851.1	7,750.2	873.4
Sitka spruce	164.4	86.0	207.1	142.5	302.7	208.5	172.4	105.1	583.4	396.4	93.5	51.5
Sugar pine	1,821.3	204.2	2,217.3	271.4	2,759.2	346.9	3,214.4	419.8	3,823.5	546.4	4,096.4	512.2
True fir	23,383.3	1,072.2	26,962.2	1,308.3	27,152.4	1,461.5	28,920.7	1,544.0	26,029.4	1,637.0	24,667.6	1,411.7
Western hemlock	260.4	118.0	232.9	107.3	316.1	130.9	333.5	181.7	392.2	213.2	11.3	11.4
Western juniper	1,466.3	157.7	1,219.3	147.2	1,567.1	194.0	1,058.1	165.8	882.5	152.0	769.1	133.2
Western white pine	429.8	84.5	497.4	125.2	738.5	176.6	628.3	160.7	550.7	155.2	584.9	122.0
Woodland softwoods	1,404.1	156.7	1,370.7	149.8	1,508.5	170.2	1,082.1	143.5	787.0	145.6	681.0	112.3
Other western softwoods	2,857.2	290.3	3,340.2	369.2	3,967.2	469.4	4,448.4	602.5	3,874.1	567.9	3,120.1	446.8
Total	83,088.6	1,792.8	90,607.4	2,084.5	97,519.0	2,425.8	98,256.8	2,619.4	91,626.1	2,808.8	83,809.5	2,387.9
Hardwoods:												
Cottonwood and aspen	228.0	79.7	306.1	119.8	187.2	85.7	324.7	153.5	266.5	126.4	401.6	181.1
Oak	30,142.9	1,292.7	26,237.6	1,177.5	24,410.4	1,290.8	18,780.4	1,188.0	15,453.0	1,186.9	12,833.2	990.8
Red alder	1,067.1	253.2	1,152.6	293.4	865.0	276.2	466.9	163.9	123.3	82.9	299.4	152.5
Tanoak	11,336.8	906.7	9,275.7	872.5	7,602.5	839.7	7,957.0	892.5	6,555.9	894.0	5,197.6	794.3
Woodland hardwoods	148.6	36.3	158.4	38.5	144.3	36.8	150.0	44.2	28.0	16.0	34.9	17.2
Other western hardwoods	8,141.1	593.6	6,216.1	561.0	7,015.7	682.1	4,276.6	538.3	3,722.3	553.5	3,496.2	472.1
Total	51,064.4	1,761.7	43,346.5	1,627.6	40,225.1	1,741.4	31,955.6	1,652.2	26,149.1	1,612.8	22,262.9	1,410.0
All species groups	134,152.9	2,416.2	133,953.9	2,539.9	137,744.1	2,890.4	130,212.4	3,021.2	117,775.2	3,191.7	106,072.4	2,730.8

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50 bone-dry tons was estimated.

^a Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 69—Aboveground biomass of live trees^a on forest land, by species group and diameter class, California, 2006-2015 (Continued)

Species group	Diameter class (inches)											
	25.0-26.9		27.0-28.9		29.0-30.9		31.0-32.9		33.0-34.9		35.0-36.9	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>												
Softwoods:												
Douglas-fir	20,614.0	918.3	19,046.3	929.9	19,256.4	1,011.7	17,966.9	974.4	17,371.1	1,016.5	15,754.1	1,045.3
Incense-cedar	5,040.1	361.1	4,137.5	313.8	3,866.8	330.8	3,643.9	320.4	3,647.6	337.6	3,119.9	334.6
Lodgepole pine	4,392.1	412.6	3,616.0	381.2	3,200.1	417.1	2,568.5	334.6	1,642.8	258.4	1,405.8	219.5
Ponderosa and Jeffrey pines	12,719.6	659.7	13,364.6	694.3	12,032.1	672.4	11,196.9	731.8	10,105.6	728.0	8,626.1	710.5
Redwood	8,469.0	865.0	8,227.5	767.6	7,446.1	787.6	6,842.2	790.3	6,528.5	754.6	5,394.6	664.7
Sitka spruce	221.3	88.9	124.4	56.9	189.7	82.3	101.0	54.2	200.0	85.5	115.6	93.1
Sugar pine	4,412.1	348.7	5,560.7	439.4	5,375.3	469.0	4,798.5	478.6	6,242.4	572.0	5,207.3	587.6
True fir	24,047.3	1,167.2	25,809.3	1,303.5	23,344.1	1,269.3	22,262.0	1,306.7	18,331.7	1,145.8	18,330.8	1,265.0
Western hemlock	184.0	72.6	141.9	76.5	89.1	43.8	106.5	81.4	41.7	44.0	29.8	28.6
Western juniper	559.3	71.0	401.3	63.2	358.4	59.1	317.8	59.8	275.2	56.0	202.0	56.4
Western white pine	771.6	109.5	657.5	122.7	857.0	139.4	884.4	162.9	753.8	138.2	740.3	138.0
Woodland softwoods	511.0	67.7	367.0	60.0	186.4	36.2	208.4	47.5	188.3	49.3	190.2	45.6
Other western softwoods	2,863.0	329.2	2,575.7	298.6	2,149.2	307.3	1,935.2	304.1	1,626.8	264.9	1,575.1	289.2
Total	84,804.4	1,930.4	84,029.9	1,975.3	78,350.5	2,045.6	72,832.3	2,038.1	66,955.6	1,997.4	60,691.5	2,043.4
Hardwoods:												
Cottonwood and aspen	146.9	55.2	252.3	91.8	127.7	53.1	75.9	37.8	10.7	10.9	76.7	47.0
Oak	8,973.0	497.8	6,940.0	475.8	5,517.5	429.6	5,109.2	450.5	3,837.1	426.4	2,328.9	319.5
Red alder	60.1	31.8	25.7	24.7	86.5	42.0	63.3	41.9	--	--	--	--
Tanoak	2,991.2	349.1	2,523.7	330.5	1,549.9	248.0	852.8	167.8	658.9	175.9	524.7	157.7
Woodland hardwoods	55.0	17.2	32.3	14.5	27.9	13.1	16.8	17.2	--	--	21.2	13.4
Other western hardwoods	2,150.4	222.6	1,739.0	210.2	1,457.8	216.2	1,107.2	230.5	720.1	164.9	934.1	229.4
Total	14,376.7	673.3	11,513.1	647.6	8,767.3	572.5	7,225.4	535.3	5,226.8	494.1	3,885.6	437.0
All species groups	99,181.0	2,020.6	95,543.0	2,070.4	87,117.9	2,116.7	80,057.7	2,103.0	72,182.4	2,062.8	64,577.2	2,092.7

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 69—Aboveground biomass of live trees on forest land, by species group and diameter class, California, 2006–2015 (Continued)

Species group	Diameter class (inches)																		All classes	
	37.0-38.9		39.0-40.9		41.0-42.9		43.0-44.9		45.0-46.9		47.0-48.9		49.0 +							
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>																				
Softwoods:																				
Douglas-fir	16,279.1	1,098.1	15,533.0	1,111.8	12,005.5	1,030.6	13,522.7	1,160.4	12,338.3	1,105.3	10,386.9	1,056.5	65,487.8	5,323.7	462,930.7	14,144.5				
Incense-cedar	3,272.4	395.3	2,752.2	357.7	2,497.4	332.6	2,265.2	321.6	1,772.2	317.0	1,419.4	306.4	8,866.6	1,201.9	90,562.7	4,247.1				
Lodgepole pine	1,017.1	181.6	981.6	213.2	645.0	158.4	613.9	179.4	316.7	106.6	194.2	91.4	189.1	140.9	64,505.4	4,479.4				
Ponderosa and Jeffrey pines	6,290.7	573.2	7,651.2	658.8	5,565.3	560.8	4,004.6	485.9	4,185.2	534.8	3,262.5	519.9	9,362.8	1,349.6	240,747.7	7,146.3				
Redwood	5,654.0	779.1	5,462.3	757.7	4,499.7	725.1	5,013.1	816.7	3,648.5	653.2	2,494.8	502.6	55,905.1	14,518.1	174,265.8	17,707.9				
Sitka spruce	136.1	73.2	77.2	56.2	209.4	99.9	141.0	78.9	79.5	69.8	--	--	829.7	685.2	4,303.7	1,489.5				
Sugar pine	4,238.7	511.2	4,368.5	557.8	3,742.0	535.2	2,964.1	524.3	3,769.7	579.3	3,768.9	654.5	21,576.4	3,250.3	98,508.2	5,523.2				
True fir	16,213.1	1,201.8	15,497.6	1,260.3	13,715.2	1,346.4	10,145.5	969.8	9,904.1	1,110.2	8,724.5	969.9	28,457.9	2,928.8	463,649.7	16,145.0				
Western hemlock	--	--	--	--	46.8	52.3	--	--	120.9	85.9	--	--	405.6	453.5	3,479.9	1,047.2				
Western juniper	299.5	75.1	252.1	75.5	195.4	54.8	90.4	36.6	153.3	58.8	117.6	50.1	735.8	193.8	15,718.9	1,056.2				
Western white pine	1,046.8	185.5	949.0	171.9	576.3	134.9	740.6	175.3	436.6	137.6	709.0	192.5	2,776.5	582.5	17,046.6	1,567.4				
Woodland softwoods	103.1	29.6	97.4	33.5	103.2	41.1	37.6	20.9	71.3	36.5	7.4	7.6	72.4	49.3	11,829.6	935.0				
Other western softwoods	1,445.6	257.4	842.5	201.0	780.6	201.9	581.3	214.8	603.7	181.3	520.0	190.7	2,581.9	1,200.8	52,800.0	3,975.6				
Total	55,996.3	2,048.7	54,464.7	2,048.9	44,581.8	2,030.1	40,120.0	1,908.9	37,400.0	1,935.3	31,605.2	1,751.3	197,247.6	17,086.0	1,700,348.9	27,743.3				
Hardwoods:																				
Cottonwood and aspen	50.0	50.8	--	--	--	--	--	--	--	--	--	--	42.0	43.0	3,649.3	810.4				
Oak	2,435.8	358.2	1,771.2	329.6	1,539.6	340.4	723.2	232.0	703.8	226.6	436.8	196.1	1,659.9	470.8	325,619.7	8,152.6				
Red alder	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8,852.9	1,412.4				
Tanoak	421.9	151.0	214.1	99.8	356.2	140.9	49.7	55.5	187.8	116.2	173.3	112.9	402.7	208.3	118,474.2	6,757.4				
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1,526.8	262.3				
Other western hardwoods	798.9	202.1	415.1	156.3	415.9	167.4	348.9	139.7	287.8	141.9	227.5	128.9	752.1	265.4	79,643.9	3,525.8				
Total	3,706.6	446.7	2,400.3	378.0	2,311.6	412.2	1,121.7	276.1	1,179.3	307.0	837.6	260.3	2,856.7	580.3	537,766.8	11,764.8				
All species groups	59,702.9	2,099.7	56,865.0	2,079.2	46,893.4	2,074.6	41,241.7	1,932.5	38,579.3	1,959.2	32,442.8	1,774.0	200,104.2	17,093.4	2,238,115.7	28,955.7				

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50 bone-dry tons was estimated.

^a Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations.

calculated with regional biomass equations.

Table 70—Aboveground biomass of dead trees^a on forest land, by species group and diameter class, California, 2006-2015

Species group	Diameter class (inches)																	
	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			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>																		
Softwoods:																		
Douglas-fir	939.5	83.5	1,083.7	107.6	1,241.8	160.9	1,372.9	169.8	1,465.9	186.2	2,037.6	317.7	1,389.4	256.4	1,564.7	299.8		
Incense-cedar	429.3	45.7	466.4	51.7	393.6	58.7	494.4	74.9	406.8	76.7	343.6	80.5	432.8	93.8	379.7	107.7		
Lodgepole pine	304.4	74.1	289.6	84.0	416.7	129.4	515.9	137.8	645.2	156.5	694.2	145.6	460.1	130.9	1,154.0	231.3		
Ponderosa and Jeffrey pines	472.9	58.0	565.8	77.8	731.4	108.9	603.9	97.3	833.7	126.3	642.1	108.4	837.9	173.4	576.4	141.1		
Redwood	111.3	25.1	96.7	24.5	184.2	40.5	107.6	30.9	27.5	25.7	118.8	44.7	125.3	42.9	107.4	56.4		
Sitka spruce	7.5	5.6	5.4	5.2	2.1	2.1	--	--	--	--	--	--	--	--	--	--	--	--
Sugar pine	104.5	19.4	253.0	41.8	256.9	45.3	337.7	68.9	374.0	93.3	471.8	106.4	367.2	116.0	416.3	149.8		
True fir	1,524.5	104.8	1,995.3	125.7	2,636.0	189.7	3,256.4	259.7	3,595.0	291.7	3,803.4	329.1	3,728.8	404.2	4,677.0	483.3		
Western hemlock	5.2	3.0	11.8	8.1	32.6	15.6	12.1	12.2	--	--	--	--	--	--	--	--	--	--
Western juniper	19.7	6.3	44.3	12.2	28.5	10.8	28.3	12.7	20.2	12.3	78.1	29.9	23.6	17.4	47.3	26.8		
Western white pine	58.5	14.8	51.2	20.5	89.5	26.5	82.7	26.4	71.9	42.1	54.2	35.0	81.3	42.8	180.8	88.3		
Woodland softwoods	43.5	8.0	83.8	14.9	135.2	25.5	166.2	37.9	183.4	47.3	199.9	48.7	159.8	48.5	200.7	68.6		
Other western softwoods	209.4	37.5	264.6	63.3	338.6	80.2	361.6	71.8	430.3	82.2	348.8	82.2	352.4	94.4	401.0	123.2		
Total	4,230.2	189.1	5,211.6	241.5	6,487.1	334.7	7,339.7	390.9	8,054.0	440.7	8,792.5	520.1	7,958.5	561.3	9,705.2	681.6		
Hardwoods:																		
Cottonwood and aspen	38.8	18.4	22.7	11.2	44.9	18.5	27.9	19.2	29.0	17.1	42.3	30.4	18.4	18.8	--	--		
Oak	3,199.0	231.5	3,301.1	276.7	2,687.4	307.2	1,806.9	208.2	1,602.0	207.6	1,529.8	231.2	1,332.6	221.8	817.6	212.4		
Red alder	56.9	14.1	82.3	22.8	139.1	44.0	89.9	32.5	45.4	35.3	69.0	66.6	64.7	36.7	--	--		
Tanoak	826.8	121.3	925.0	149.3	1,033.7	201.0	859.0	180.6	1,021.5	239.2	726.0	212.6	587.8	169.0	459.3	176.9		
Woodland hardwoods	46.3	13.0	98.9	27.3	115.9	26.5	88.4	30.2	107.5	40.3	72.7	41.8	66.1	33.4	56.7	32.0		
Other western hardwoods	751.9	82.2	793.3	99.5	760.9	99.9	727.8	111.6	423.4	97.4	544.7	127.5	449.5	131.7	306.3	120.8		
Total	4,919.6	283.5	5,223.2	344.4	4,781.8	393.1	3,599.8	307.7	3,228.8	333.9	2,984.6	354.5	2,519.1	311.7	1,640.0	303.0		
All species groups	9,149.8	349.0	10,434.8	430.3	11,268.9	516.0	10,939.5	501.1	11,282.8	555.0	11,777.1	629.2	10,477.6	642.4	11,345.3	740.9		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes all dead trees >= 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory. Aboveground biomass is estimated from ground to actual height, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 70—Aboveground biomass of dead trees^a on forest land, by species group and diameter class, California, 2006–2015 (Continued)

Species group	Diameter class (inches)																	
	21.0-22.9		23.0-24.9		25.0-26.9		27.0-28.9		29.0-30.9		31.0-32.9		33.0-34.9		35.0-36.9			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>																		
Softwoods:																		
Douglas-fir	1,254.3	275.2	1,485.3	259.3	1,648.4	173.8	1,738.0	217.5	1,648.7	208.2	1,860.7	262.1	2,090.4	261.0	1,874.6	255.8		
Incense-cedar	387.8	112.6	354.4	94.1	339.9	63.4	345.4	61.4	460.9	82.8	599.9	106.8	486.3	105.8	245.2	70.6		
Lodgepole pine	734.1	210.3	532.9	119.1	845.3	128.7	761.6	123.6	557.8	103.0	398.2	90.5	356.4	85.3	330.1	92.6		
Ponderosa and Jeffrey pines	876.3	196.1	972.1	188.8	967.5	136.8	886.8	117.1	992.2	138.1	1,205.1	160.6	815.1	139.1	723.0	145.2		
Redwood	67.3	26.6	160.6	97.4	63.0	18.2	167.2	49.1	111.0	30.2	88.8	22.4	190.3	51.5	201.3	48.9		
Sitka spruce	55.8	49.0	--	--	4.1	4.2	--	--	--	--	--	--	--	--	--	--	--	--
Sugar pine	297.4	124.8	285.2	67.2	579.5	106.7	516.8	101.8	602.6	116.3	722.4	174.0	621.4	159.6	503.4	148.3		
True fir	4,924.5	531.3	4,459.5	461.2	4,026.0	324.5	4,130.5	338.1	4,037.5	357.5	3,662.3	345.9	3,762.1	361.2	3,464.0	368.4		
Western hemlock	18.7	17.9	--	--	19.5	18.6	8.0	8.1	--	--	47.5	45.5	--	--	14.2	15.9		
Western juniper	19.8	20.0	75.0	41.7	35.4	16.0	9.7	7.3	27.6	14.4	24.3	14.4	9.8	9.0	26.0	26.9		
Western white pine	144.9	71.2	94.9	55.3	179.8	45.6	134.2	43.2	131.0	45.6	128.3	45.0	125.5	50.2	57.0	29.0		
Woodland softwoods	19.8	18.3	44.1	28.8	58.7	16.9	35.5	17.4	61.6	26.1	9.7	8.0	47.8	23.0	15.7	14.8		
Other western softwoods	425.0	126.1	661.1	152.2	316.4	71.1	329.8	71.3	311.3	72.2	274.1	68.5	228.9	69.3	151.0	63.9		
Total	9,225.8	709.3	9,125.1	617.1	9,083.6	451.4	9,063.4	470.6	8,942.2	488.4	9,021.4	525.1	8,733.9	514.8	7,605.6	508.1		
Hardwoods:																		
Cottonwood and aspen	--	--	7.5	8.4	--	--	--	--	--	--	--	--	47.3	30.5	--	--		
Oak	783.0	186.6	865.5	195.4	505.4	82.5	729.2	122.0	363.7	81.7	480.4	102.8	283.2	82.6	142.8	54.0		
Red alder	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Tanoak	275.6	132.9	156.5	94.7	101.4	36.3	107.5	43.6	156.9	61.9	45.9	26.7	41.2	30.6	73.6	45.9		
Woodland hardwoods	49.3	33.1	8.4	6.1	--	--	14.7	10.9	--	--	17.6	12.8	--	--	--	--	--	
Other western hardwoods	263.0	113.2	249.1	115.9	91.2	37.0	43.3	25.7	99.3	46.1	46.3	31.7	32.4	29.2	88.7	50.6		
Total	1,370.9	257.5	1,287.0	255.2	698.1	104.8	894.8	132.4	619.8	112.2	590.3	111.4	404.1	97.7	305.1	87.1		
All species groups	10,596.7	759.2	10,412.1	667.2	9,781.7	462.3	9,958.2	487.6	9,562.0	498.8	9,611.6	536.8	9,138.0	523.3	7,910.7	516.9		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory. Aboveground biomass is estimated from ground to actual height, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 70—Aboveground biomass of dead trees^a on forest land, by species group and diameter class, California, 2006-2015 (Continued)

Species group	Diameter class (inches)																	
	37.0-38.9		39.0-40.9		41.0-42.9		43.0-44.9		45.0-46.9		47.0-48.9		49.0 +		All classes			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>																		
Softwoods:																		
Douglas-fir	1,466.9	244.8	1,406.6	251.1	1,665.8	298.1	1,865.8	365.5	1,560.1	288.6	1,840.6	350.2	8,260.2	1,131.7	42,761.7	2,939.5		
Incense-cedar	408.8	95.9	234.9	78.2	377.9	103.7	402.6	122.6	225.3	96.4	304.6	124.5	1,103.7	289.8	9,624.4	714.4		
Lodgepole pine	270.3	96.4	175.8	70.9	178.0	71.9	76.5	47.1	74.4	49.6	32.9	34.0	108.4	77.3	9,912.7	1,079.1		
Ponderosa and Jeffrey pines	819.2	174.0	528.9	137.6	612.7	145.8	809.4	200.7	449.9	160.2	467.6	170.4	1,721.6	389.1	18,111.4	1,249.5		
Redwood	195.2	47.1	189.6	51.9	275.5	76.1	252.5	67.5	233.4	61.9	234.2	60.9	15,614.0	2,801.3	18,922.7	2,904.7		
Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--	74.9	50.0		
Sugar pine	688.5	206.0	1,089.2	275.1	738.0	240.3	1,080.5	309.8	421.7	174.1	548.2	236.0	6,367.9	1,292.4	17,644.2	1,927.7		
True fir	2,052.2	274.5	2,271.4	309.6	2,647.6	372.5	2,423.4	396.5	2,383.5	403.0	1,851.2	341.9	10,146.6	1,340.6	81,458.7	4,006.4		
Western hemlock	79.8	60.9	--	--	--	--	22.2	23.5	--	--	46.8	52.4	--	--	318.6	172.0		
Western juniper	11.0	11.1	--	--	20.3	21.0	--	--	10.3	10.4	--	--	18.5	19.0	577.7	116.6		
Western white pine	223.5	75.2	78.3	42.6	85.5	53.5	68.5	54.7	49.7	40.2	90.8	60.6	183.6	94.9	2,445.6	345.0		
Woodland softwoods	5.9	5.5	--	--	14.6	14.7	--	--	--	--	--	--	--	--	1,486.0	205.1		
Other western softwoods	174.9	72.6	--	--	96.2	52.9	91.5	59.0	28.3	32.0	--	--	795.0	577.9	6,590.3	865.2		
Total	6,396.2	508.6	5,974.7	524.8	6,712.0	570.1	7,092.8	671.9	5,436.6	562.8	5,417.0	587.1	44,319.4	3,717.0	209,928.7	6,595.2		
Hardwoods:																		
Cottonwood and aspen	--	--	--	--	--	--	--	--	--	--	--	--	--	--	278.9	87.0		
Oak	227.5	87.5	72.7	45.9	141.4	78.5	40.3	40.7	45.2	45.6	--	--	112.8	86.1	21,069.6	1,179.7		
Red alder	52.2	41.2	--	--	--	--	--	--	--	--	--	--	--	--	599.6	131.1		
Tanoak	--	--	59.6	44.3	41.9	35.4	60.7	56.8	--	--	--	--	--	--	7,559.9	1,051.6		
Woodland hardwoods	16.6	17.0	--	--	--	--	--	--	--	--	--	--	--	--	759.1	178.6		
Other western hardwoods	--	--	--	--	--	--	73.6	52.1	42.7	36.1	--	--	97.9	73.5	5,885.2	530.8		
Total	296.3	98.2	132.3	63.8	183.2	86.1	174.6	87.2	88.0	58.2	--	--	210.8	113.2	36,152.3	1,747.8		
All species groups	6,692.5	517.2	6,107.0	536.9	6,895.2	576.3	7,267.4	677.4	5,524.6	569.0	5,417.0	587.1	44,530.2	3,718.3	246,081.0	6,851.2		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory. Aboveground biomass is estimated from ground to actual height, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 71—Aboveground green biomass of live trees^a on forest land, by ownership and land status, California, 2006-2015

Ownership	Unreserved forests								Reserved forests								All forest land	
	Timberland		Other forest		Total		Productive		Other forest		Total		Total		Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>																		
USDA Forest Service:																		
National Forest	1,319,249.1	28,286.7	100,791.2	8,015.1	1,420,040.2	27,668.8	446,406.2	20,826.9	63,688.0	6,826.6	510,094.2	20,744.3	1,930,134.4	30,989.8				
Other federal government:																		
Bureau of Land Management	41,402.2	8,160.4	23,695.6	3,432.6	65,097.7	8,766.8	9,961.6	3,900.8	4,687.1	1,157.0	14,648.7	4,068.8	79,746.4	9,570.7				
Departments of Defense or Energy	1,011.1	788.1	3,073.8	1,119.7	4,084.9	1,369.3	--	--	509.0	526.6	509.0	526.6	4,593.9	1,467.1				
National Park Service	--	--	--	--	--	--	191,785.1	17,624.0	22,317.6	4,086.8	214,102.7	17,886.7	214,102.7	17,886.7				
U.S. Fish and Wildlife Service	--	--	--	--	--	--	94.4	96.5	57.1	57.5	151.5	112.4	151.5	112.4				
Other federal	--	--	1,910.1	621.4	1,910.1	621.4	--	--	305.6	212.9	305.6	212.9	2,215.7	656.9				
Total	42,413.2	8,185.2	28,679.5	3,644.5	71,092.7	8,867.4	201,841.1	17,851.9	27,876.5	4,234.3	229,717.5	18,092.0	300,810.2	18,775.2				
State and local government:																		
Local	8,370.6	3,391.9	7,781.3	2,027.0	16,151.9	3,982.6	10,689.4	4,237.2	12,618.8	2,659.6	23,308.2	4,839.4	39,460.1	6,240.2				
State	25,194.8	6,602.8	2,381.4	1,582.3	27,576.2	6,659.3	91,134.1	17,839.7	17,567.1	4,251.0	108,701.2	18,192.8	136,277.4	16,922.3				
Other public	--	--	74.3	67.3	74.3	67.3	1,249.7	1,391.6	150.0	162.4	1,399.7	1,401.1	1,474.0	1,402.7				
Total	33,565.4	7,383.2	10,236.9	2,572.2	43,802.3	7,721.2	103,073.2	18,294.7	30,336.0	4,917.3	133,409.2	18,692.1	177,211.5	17,736.3				
Corporate private	511,022.7	19,769.0	47,320.4	5,322.6	558,343.1	20,274.8	--	--	--	--	--	--	--	--	558,343.1	20,274.8		
Noncorporate private:																		
Nongovernmental conservation or natural resource organizations	24,313.7	4,521.9	3,888.6	976.6	28,202.2	4,626.2	--	--	--	--	--	--	--	--	28,202.2	4,626.2		
Unincorporated partnerships, associations, clubs	22,112.9	5,382.8	4,581.1	1,510.1	26,694.0	5,606.7	--	--	--	--	--	--	--	--	26,694.0	5,606.7		
Native American	39,749.5	8,907.2	2,167.8	1,053.6	41,917.3	8,962.5	--	--	--	--	--	--	--	--	41,917.3	8,962.5		
Individual	373,956.7	20,358.1	212,743.8	9,695.3	586,700.5	21,633.1	--	--	--	--	--	--	--	--	586,700.5	21,633.1		
Total	460,132.8	22,264.6	223,381.3	9,816.5	683,514.1	23,310.3	--	--	--	--	--	--	--	--	683,514.1	23,310.3		
All private	971,155.5	23,817.4	270,701.7	10,821.1	1,241,857.2	23,946.7	--	--	--	--	--	--	--	--	1,241,857.2	23,946.7		
All owners	2,366,383.1	37,622.5	410,409.3	14,134.4	2,776,792.4	37,230.8	751,320.5	32,923.8	121,900.4	9,406.9	873,220.9	33,205.9	3,650,013.3	44,247.3				

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error.

^a Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 72—Aboveground green biomass of live trees^a on forest land, by species group and diameter class, California, 2006–2015

Species group	Diameter class (inches)											
	1.0-2.9		3.0-4.9		5.0-6.9		7.0-8.9		9.0-10.9		11.0-12.9	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>												
Softwoods:												
Douglas-fir	2,455.5	149.9	6,441.5	444.8	20,097.1	809.3	28,052.1	1,168.9	34,759.7	1,445.7	40,139.1	1,773.3
Incense-cedar	564.4	51.7	1,524.4	139.3	3,603.7	204.4	4,334.3	251.5	5,450.2	339.9	6,008.6	404.7
Lodgepole pine	2,480.9	402.2	1,975.9	372.5	3,185.5	432.5	3,568.0	394.4	5,350.9	608.4	5,876.5	558.2
Ponderosa and Jeffrey pines	799.6	67.2	2,201.4	177.1	6,409.0	317.7	10,007.7	501.7	13,992.8	705.5	17,723.8	868.8
Redwood	395.0	58.7	665.7	102.1	1,504.3	143.4	2,438.6	232.7	3,373.9	340.4	4,731.8	476.9
Sitka spruce	39.3	27.8	47.0	32.9	72.1	37.4	155.1	68.8	119.4	58.3	190.4	125.6
Sugar pine	144.0	20.8	397.9	86.8	981.4	94.2	1,632.2	153.6	2,385.0	234.0	3,120.6	301.7
True fir	11,783.4	735.9	8,760.9	570.4	14,922.5	603.0	19,643.3	793.0	26,499.5	1,111.4	30,333.2	1,286.6
Western hemlock	71.4	30.8	232.5	107.8	200.7	93.1	254.1	82.9	330.0	123.5	423.7	159.8
Western juniper	193.9	32.6	639.9	119.4	1,003.8	88.4	1,626.3	142.0	2,143.2	186.7	2,056.3	195.8
Western white pine	493.8	107.2	304.8	77.5	446.2	62.0	524.4	79.5	668.2	112.9	666.8	119.7
Woodland softwoods	97.2	16.7	149.2	31.7	427.7	48.0	904.1	94.2	1,386.7	141.1	1,848.6	208.4
Other western softwoods	2,451.9	399.1	1,745.3	290.9	2,838.1	290.6	3,554.3	328.8	3,940.5	335.2	4,457.7	425.2
Total	21,970.3	967.5	25,086.4	915.8	55,692.0	1,193.0	76,694.7	1,582.0	100,399.9	2,047.1	117,577.1	2,449.1
Hardwoods:												
Cottonwood and aspen	613.9	162.4	504.8	194.7	309.6	109.6	263.3	80.8	266.8	82.0	332.9	112.5
Oak	9,198.8	575.0	28,135.5	1,738.4	51,400.1	1,891.2	67,290.7	2,336.8	70,448.1	2,488.9	63,682.9	2,420.5
Red alder	180.3	75.9	429.4	220.5	755.0	155.7	1,524.9	255.5	2,093.8	356.9	3,002.2	602.4
Tanoak	4,756.8	351.9	9,567.6	724.6	16,787.7	1,036.8	20,750.8	1,303.4	22,661.6	1,535.0	21,514.8	1,527.6
Woodland hardwoods	65.7	19.2	74.7	28.6	183.1	41.1	253.6	56.5	361.3	81.7	295.0	58.4
Other western hardwoods	3,165.2	251.0	6,836.1	620.1	9,750.3	536.8	12,340.3	680.4	13,477.9	782.0	13,162.7	873.4
Total	17,980.6	743.1	45,547.9	2,008.5	79,185.8	2,227.7	102,423.6	2,765.4	109,309.5	3,033.0	101,990.6	3,106.5
All species groups	39,950.9	1,200.9	70,634.3	2,191.7	134,877.9	2,500.4	179,118.3	3,104.7	209,709.4	3,544.4	219,567.7	3,786.1

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error.

^a Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 72—Aboveground green biomass of live trees^a on forest land, by species group and diameter class, California, 2006-2015 (Continued)

Species group	Diameter class (inches)											
	13.0-14.9		15.0-16.9		17.0-18.9		19.0-20.9		21.0-22.9		23.0-24.9	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>												
Softwoods:												
Douglas-fir	43,334.5	2,008.9	44,242.3	2,200.0	48,687.3	2,552.3	44,313.7	2,678.6	38,346.5	2,567.4	34,996.9	2,163.6
Incense-cedar	5,484.7	408.5	6,482.4	506.6	6,502.8	560.3	7,214.9	650.7	6,441.2	721.0	5,708.6	572.3
Lodgepole pine	7,810.4	796.9	7,291.1	790.6	8,611.4	894.6	9,362.8	1,032.3	8,917.5	1,070.2	7,481.0	927.1
Ponderosa and Jeffrey pines	20,119.5	1,019.0	21,914.0	1,135.1	23,642.3	1,363.3	23,092.5	1,467.5	23,291.5	1,556.9	19,948.8	1,290.9
Redwood	5,563.0	528.5	6,823.9	674.1	7,053.4	704.7	8,189.4	981.1	8,450.9	1,022.8	9,314.2	1,049.6
Sitka spruce	288.5	151.0	363.5	250.1	531.2	365.9	302.5	184.4	1,023.8	695.6	164.1	90.4
Sugar pine	3,465.8	388.5	4,219.3	516.4	5,250.4	660.0	6,116.6	798.8	7,275.7	1,039.7	7,794.9	974.7
True fir	36,085.7	1,665.1	41,514.1	2,032.5	41,838.5	2,279.6	44,486.6	2,394.2	39,666.9	2,499.7	37,588.0	2,170.4
Western hemlock	513.2	232.7	459.1	211.4	623.0	258.0	657.3	358.2	773.0	420.3	22.3	22.5
Western juniper	2,341.9	251.8	1,947.3	235.1	2,502.8	309.8	1,689.8	264.9	1,409.5	242.8	1,228.3	212.8
Western white pine	776.8	152.8	898.9	226.2	1,334.6	319.1	1,135.4	290.4	995.2	280.5	1,057.0	220.5
Woodland softwoods	2,365.5	265.2	2,305.5	253.1	2,537.3	287.5	1,815.9	241.5	1,321.0	245.9	1,139.9	188.4
Other western softwoods	4,924.0	511.6	5,646.4	635.5	6,573.4	787.6	7,522.3	1,024.3	6,630.4	1,005.3	5,300.6	782.5
Total	133,073.6	2,937.8	144,107.9	3,379.0	155,688.5	3,952.7	155,899.9	4,217.0	144,543.0	4,486.9	131,744.6	3,785.5
Hardwoods:												
Cottonwood and aspen	446.3	154.8	594.8	231.3	371.3	170.1	634.8	295.6	517.7	244.7	795.3	360.5
Oak	56,276.7	2,422.2	49,060.8	2,207.4	45,532.3	2,410.5	35,067.7	2,220.6	28,869.2	2,219.7	24,027.1	1,861.3
Red alder	1,835.4	435.4	1,982.5	504.6	1,487.8	475.0	803.0	281.8	212.0	142.5	515.0	262.3
Tanoak	18,255.2	1,460.0	14,936.2	1,405.0	12,242.0	1,352.1	12,812.8	1,437.2	10,556.7	1,439.6	8,369.5	1,279.0
Woodland hardwoods	260.1	61.9	276.5	66.5	254.8	64.7	269.8	79.5	50.4	28.7	62.8	30.9
Other western hardwoods	13,326.9	972.8	10,120.1	906.7	11,783.2	1,140.1	7,019.1	879.7	6,010.7	887.2	5,618.6	756.0
Total	90,400.5	3,106.1	76,970.9	2,859.9	71,671.3	3,078.3	56,607.2	2,909.5	46,216.9	2,836.9	39,388.3	2,476.8
All species groups	223,474.1	4,126.6	221,078.9	4,259.4	227,359.8	4,855.9	212,507.0	5,006.3	190,759.9	5,236.2	171,132.8	4,456.1

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error.

^a Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 72—Aboveground green biomass of live trees^a on forest land, by species group and diameter class, California, 2006-2015 (Continued)

Species group	Diameter class (inches)											
	25.0-26.9		27.0-28.9		29.0-30.9		31.0-32.9		33.0-34.9		35.0-36.9	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>												
Softwoods:												
Douglas-fir	38,358.0	1,708.7	35,440.8	1,730.3	35,831.5	1,882.6	33,432.2	1,813.2	32,323.7	1,891.4	29,314.8	1,945.0
Incense-cedar	6,754.9	483.9	5,545.1	420.6	5,182.3	443.4	4,883.7	429.4	4,888.6	452.5	4,181.3	448.5
Lodgepole pine	7,223.9	678.6	5,947.3	626.9	5,263.3	686.0	4,224.5	550.3	2,702.0	425.0	2,312.1	361.0
Ponderosa and Jeffrey pines	17,600.2	913.0	18,486.7	959.8	16,646.0	929.7	15,490.8	1,011.5	13,985.5	1,006.5	11,933.5	982.1
Redwood	10,178.0	1,039.6	9,887.8	922.6	8,948.7	946.5	8,223.0	949.8	7,845.9	906.9	6,483.2	798.8
Sitka spruce	388.4	156.0	218.3	99.8	333.0	144.4	177.3	95.0	351.0	150.0	202.9	163.4
Sugar pine	8,395.8	663.6	10,581.4	836.2	10,228.6	892.4	9,131.0	910.7	11,878.5	1,088.4	9,909.0	1,118.2
True fir	36,472.2	1,745.8	38,745.0	1,935.1	35,085.4	1,911.6	33,042.7	1,925.2	27,218.9	1,723.6	26,781.2	1,842.8
Western hemlock	362.6	143.2	279.7	150.8	175.6	86.4	210.0	160.5	82.3	86.8	58.7	56.4
Western juniper	893.3	113.4	641.0	100.9	572.4	94.3	507.6	95.5	439.6	89.4	322.5	90.1
Western white pine	1,394.4	197.9	1,188.3	221.7	1,548.7	251.8	1,598.3	294.4	1,362.3	249.8	1,337.9	249.4
Woodland softwoods	855.4	113.7	614.5	101.1	309.4	60.3	347.8	79.9	311.6	81.7	317.1	76.3
Other western softwoods	4,905.0	586.5	4,418.1	531.4	3,729.0	552.1	3,302.5	546.9	2,793.2	459.4	2,716.6	506.9
Total	133,782.0	2,980.8	131,994.2	3,077.6	123,853.8	3,238.5	114,571.3	3,175.6	106,183.0	3,181.3	95,870.8	3,234.0
Hardwoods:												
Cottonwood and aspen	287.9	107.8	496.3	181.1	246.2	101.7	151.4	75.4	21.4	21.7	146.6	89.4
Oak	16,842.6	935.4	13,022.8	891.1	10,349.3	805.6	9,585.4	845.7	7,238.9	806.0	4,398.0	604.0
Red alder	103.4	54.8	44.2	42.5	148.7	72.2	108.9	72.0	--	--	--	--
Tanoak	4,816.6	562.1	4,063.8	532.2	2,495.7	399.4	1,373.3	270.3	1,060.9	283.3	845.0	253.9
Woodland hardwoods	97.4	30.6	55.5	24.9	46.6	20.9	23.8	24.3	--	--	33.9	20.3
Other western hardwoods	3,497.1	360.6	2,899.6	350.5	2,374.2	351.6	1,812.5	382.3	1,218.4	278.5	1,501.8	369.0
Total	25,645.1	1,190.2	20,582.3	1,145.9	15,660.7	1,017.0	13,055.3	970.0	9,539.6	905.0	6,925.3	774.7
All species groups	159,427.2	3,170.2	152,576.4	3,268.0	139,514.6	3,385.3	127,626.6	3,320.3	115,722.7	3,318.2	102,796.0	3,330.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error.

^a Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 72—Aboveground green biomass of live trees on forest land, by species group and diameter class, California, 2006-2015 (Continued)

Species group	Diameter class (inches)																	
	37.0-38.9		39.0-40.9		41.0-42.9		43.0-44.9		45.0-46.9		47.0-48.9		49.0 +		All classes			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>																		
Softwoods:																		
Douglas-fir	30,291.7	2,043.3	28,903.2	2,068.9	22,339.5	1,917.8	25,162.8	2,159.3	22,958.7	2,056.8	19,327.5	1,965.9	121,858.6	9,906.2	861,409.2	26,319.8		
Incense-cedar	4,385.8	529.8	3,688.6	479.4	3,347.1	445.8	3,035.8	431.0	2,375.1	424.8	1,902.3	410.6	11,883.2	1,610.7	121,374.1	5,692.0		
Lodgepole pine	1,672.9	298.7	1,614.5	350.7	1,060.9	260.6	1,009.8	295.0	520.8	175.4	319.4	150.3	311.0	231.7	106,094.3	7,367.5		
Ponderosa and Jeffrey pines	8,706.3	793.0	10,594.4	911.7	7,705.2	776.4	5,548.8	673.1	5,792.9	739.8	4,519.7	719.9	12,974.9	1,867.8	333,127.8	9,886.3		
Redwood	6,795.0	936.3	6,564.6	910.6	5,407.7	871.4	6,024.7	981.5	4,384.7	785.1	2,998.2	604.0	67,186.6	17,447.8	209,432.3	21,281.4		
Sitka spruce	238.8	128.4	135.5	98.6	367.5	175.4	247.4	138.4	139.5	122.4	--	--	1,456.0	1,202.5	7,552.6	2,614.0		
Sugar pine	8,065.7	972.8	8,312.9	1,061.4	7,120.5	1,018.5	5,640.4	997.7	7,173.2	1,102.4	7,171.9	1,245.5	41,057.4	6,184.9	187,449.9	10,510.1		
True fir	23,512.1	1,720.5	22,262.4	1,790.2	19,794.0	1,989.6	15,055.1	1,461.0	14,056.7	1,599.8	12,530.6	1,418.9	38,886.3	3,899.5	696,565.2	23,788.9		
Western hemlock	--	--	--	--	92.2	103.0	--	--	238.3	169.3	--	--	799.5	893.9	6,859.3	2,064.2		
Western juniper	478.3	120.0	402.7	120.7	312.2	87.5	144.4	58.5	244.9	93.9	187.8	80.0	1,175.1	309.5	25,104.9	1,686.8		
Western white pine	1,891.8	335.3	1,715.0	310.7	1,041.5	243.8	1,338.5	316.7	789.1	248.7	1,281.3	347.8	5,017.7	1,052.7	30,806.7	2,832.7		
Woodland softwoods	169.0	48.7	159.5	54.9	169.4	67.9	61.8	34.7	115.6	59.3	12.1	12.4	118.2	80.4	19,860.1	1,574.2		
Other western softwoods	2,505.0	452.5	1,427.8	353.3	1,348.5	354.6	1,011.6	377.6	1,077.4	328.5	845.0	316.0	3,939.5	1,602.0	89,604.2	6,867.7		
Total	88,712.4	3,241.1	85,781.0	3,221.4	70,106.2	3,205.7	64,281.2	3,094.1	59,867.0	3,125.0	51,095.8	2,898.3	306,664.1	23,133.8	2,695,240.7	41,333.5		
Hardwoods:																		
Cottonwood and aspen	94.4	96.0	--	--	--	--	--	--	--	--	--	--	83.7	85.7	7,179.5	1,581.4		
Oak	4,545.7	668.8	3,334.9	620.5	2,866.1	633.3	1,344.5	427.7	1,285.6	410.0	833.1	373.3	3,136.3	890.6	607,773.0	15,271.8		
Red alder	--	--	--	--	--	--	--	--	--	--	--	--	--	--	15,226.6	2,429.3		
Tanoak	679.4	243.1	344.7	160.7	573.5	226.9	80.0	89.4	302.4	187.1	279.1	181.7	648.4	335.4	190,774.3	10,881.1		
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2,665.0	451.2		
Other western hardwoods	1,275.2	324.8	637.4	236.9	727.2	313.2	559.0	223.9	471.9	238.2	355.2	202.5	1,213.5	425.9	131,154.1	5,742.5		
Total	6,594.7	795.9	4,317.1	683.0	4,166.7	752.6	1,983.5	490.5	2,059.9	532.7	1,467.3	461.8	5,081.9	1,045.3	954,772.6	20,525.1		
All species groups	95,307.1	3,345.6	90,098.1	3,286.1	74,272.9	3,299.0	66,264.7	3,138.4	61,926.9	3,169.8	52,563.2	2,941.1	311,746.0	23,154.3	3,650,013.3	44,247.3		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error.

a Includes all live trees >= 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 73—Average aboveground biomass per acre of live trees^a on forest land, by forest type group and ownership group, California, 2006–2015

Forest type group	Ownership Group													
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All private		All owners	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Tons per acre</i>														
Softwoods:														
California mixed conifer	111.43	2.23	123.55	8.47	135.66	19.83	66.02	2.77	78.69	4.38	69.15	2.35	101.02	1.74
Douglas-fir	158.85	13.55	159.00	32.47	158.17	22.21	102.46	6.45	118.58	9.67	110.38	5.82	129.41	5.92
Fir / spruce / mtn. hemlock	125.80	5.16	141.27	12.49	109.03	12.78	77.71	8.31	74.31	14.39	76.90	7.18	121.15	4.34
Hemlock / Sitka spruce														
Lodgepole pine	61.58	3.60	72.19	8.34	35.10	17.38	45.00	8.48	70.94	12.45	58.88	8.64	63.43	3.20
Pinyon / juniper woodlands	10.40	0.96	7.70	0.75	8.93	2.90	5.00	1.25	4.88	1.36	4.91	1.06	8.72	0.57
Ponderosa pine	44.60	2.31	35.88	6.24	32.87	15.36	34.44	3.22	53.88	4.15	43.24	2.67	43.73	1.71
Redwood	393.36	106.08	624.17	99.43	448.64	102.67	140.67	10.96	216.65	17.72	168.44	10.13	228.44	19.77
Western juniper	15.87	1.41	9.90	1.11	21.56	18.67	8.34	1.28	9.92	1.10	9.62	0.93	12.93	0.84
Western larch														
Western white pine	45.19	6.02	38.39	11.70	--	--	--	--	--	--	--	--	44.67	5.65
Other western softwoods	26.12	2.93	27.56	5.96	26.51	21.22	106.42	28.17	133.42	35.54	119.58	22.58	38.64	4.88
Total	87.07	1.51	69.52	5.05	176.58	32.61	73.59	2.52	81.21	4.27	76.57	2.20	84.01	1.39
Hardwoods:														
Alder / maple	55.36	18.60	115.94	16.40	145.65	6.18	92.22	13.32	68.32	11.07	82.73	9.41	86.17	8.12
Aspen / birch	24.50	7.89	1.43	0.26	43.59	43.59	97.58	97.58	23.34	23.34	44.14	18.87	25.61	6.86
Elm / ash / cottonwood	49.50	49.50	--	--	45.68	13.47	26.01	26.01	52.14	21.90	49.60	20.48	47.61	12.05
Tanoak / laurel	112.44	9.45	108.27	21.27	134.86	19.25	101.67	6.33	119.28	5.92	111.55	4.39	113.60	4.03
Western oak	50.63	2.31	35.26	3.14	41.45	3.33	46.30	2.78	35.19	1.04	37.26	0.99	41.09	0.93
Woodland hardwoods	11.22	1.94	7.94	1.65	21.85	9.78	11.87	11.87	10.03	5.15	10.27	4.47	11.09	1.49
Other hardwoods	39.72	11.49	33.33	15.28	116.80	30.50	63.30	16.18	51.51	8.88	54.58	7.84	52.01	6.96
Total	55.72	2.40	42.52	3.80	68.15	6.30	66.53	3.12	46.57	1.48	51.36	1.33	52.93	1.13
Nonstocked														
Nonstocked	2.30	0.55	0.52	0.25	--	--	4.68	1.48	1.54	0.74	3.98	1.17	2.54	0.47
All forest types	76.67	1.22	60.47	3.67	106.60	12.26	68.90	1.90	55.84	1.59	61.13	1.16	70.07	0.91

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 bone-dry tons per acre was estimated;

the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 74—Average aboveground biomass per acre of dead trees^a on forest land, by forest type group and ownership group, California, 2006-2015

Forest type group	Ownership Group													
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All private		All owners	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Tons per acre</i>														
Softwoods:														
California mixed conifer	13.55	0.59	19.99	2.53	11.95	5.89	4.19	0.40	3.88	0.84	4.11	0.37	11.39	0.45
Douglas-fir	17.74	2.64	9.25	3.85	13.98	6.99	7.74	1.51	7.11	1.39	7.43	1.03	10.80	1.11
Fir / spruce / mtn. hemlock	19.66	1.46	33.45	6.48	13.95	3.53	5.89	2.02	8.26	2.82	6.45	1.68	19.34	1.35
Hemlock / Sitka spruce	--	--	--	--	--	--	48.60	29.78	7.59	7.94	39.60	24.54	37.64	23.41
Lodgepole pine	7.73	0.85	9.30	1.79	6.81	2.90	14.12	6.53	7.57	1.77	10.62	3.32	8.26	0.75
Pinyon / juniper woodlands	1.10	0.18	0.55	0.10	0.61	0.27	0.40	0.23	0.50	0.19	0.47	0.15	0.81	0.10
Ponderosa pine	2.46	0.34	2.84	1.86	0.53	0.59	1.03	0.21	1.35	0.32	1.18	0.19	2.02	0.23
Redwood	0.50	0.50	68.23	33.63	19.89	4.96	16.38	3.78	17.13	4.41	16.65	2.89	18.69	2.91
Western juniper	1.27	0.28	0.46	0.16	2.47	2.47	0.47	0.26	0.39	0.12	0.41	0.11	0.87	0.16
Western white pine	9.84	1.76	9.34	2.49	--	--	--	--	--	--	--	--	9.80	1.64
Other western softwoods	3.91	0.84	3.66	1.33	2.52	1.61	--	--	13.55	6.06	10.12	5.12	4.24	0.76
Total	10.72	0.37	10.51	1.18	10.86	2.16	6.07	0.67	5.00	0.65	5.65	0.48	9.32	0.29
Hardwoods:														
Alder / maple	11.19	3.73	21.10	13.46	2.87	0.61	20.17	7.20	4.83	1.88	14.08	4.65	14.51	3.90
Aspen / birch	1.93	0.75	--	--	6.97	6.97	--	--	--	--	--	--	1.47	0.58
Elm / ash / cottonwood	1.10	1.10	--	--	0.37	0.37	--	--	3.75	2.15	3.39	2.03	2.14	1.35
Tanoak / laurel	13.52	2.88	19.19	7.57	6.95	1.85	8.79	1.87	4.81	0.67	6.56	0.91	8.69	0.97
Western oak	6.97	0.89	3.32	0.62	2.34	0.58	2.38	0.29	1.45	0.11	1.62	0.11	3.28	0.27
Woodland hardwoods	4.37	1.31	2.05	0.63	2.28	0.45	0.47	0.47	1.17	0.76	1.08	0.65	3.14	0.74
Other hardwoods	7.63	2.13	3.03	2.70	2.99	1.63	3.27	1.04	2.85	0.90	2.96	0.72	4.84	0.98
Total	7.68	0.77	5.31	1.12	3.42	0.60	5.28	0.75	1.96	0.14	2.76	0.21	4.38	0.27
Nonstocked	23.33	3.78	1.63	0.70	42.21	42.21	3.84	1.42	1.29	0.50	3.27	1.12	17.04	2.69
All forest types	10.57	0.36	8.87	0.88	6.39	0.92	5.73	0.49	2.79	0.21	3.98	0.23	7.70	0.22

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 bone-dry tons per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory. Aboveground biomass is estimated from ground to actual height, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 75—Average aboveground biomass per acre of live trees^a on forest land, by forest type group and stand size class, California, 2006-2015

Forest type group	Stand size class							
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		All classes	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Tons per acre</i>								
Softwoods:								
California mixed conifer	106.58	1.77	27.28	3.98	9.00	1.09	101.02	1.74
Douglas-fir	141.50	6.12	44.38	7.46	22.71	6.17	129.41	5.92
Fir / spruce / mtn. hemlock	127.95	4.40	44.36	11.00	12.31	2.60	121.15	4.34
Lodgepole pine	67.11	3.37	38.02	12.52	17.84	5.25	63.43	3.20
Pinyon / juniper woodlands	9.60	0.62	3.21	1.73	1.15	0.47	8.72	0.57
Ponderosa pine	49.32	1.84	14.45	1.94	4.67	1.06	43.73	1.71
Redwood	247.07	20.84	21.52	5.19	12.22	2.49	228.44	19.77
Western juniper	14.63	0.96	5.51	1.04	3.60	0.84	12.93	0.84
Western white pine	54.80	6.19	--	--	14.92	3.92	44.67	5.65
Other western softwoods	56.85	7.04	13.38	3.25	8.37	1.92	38.64	4.88
Total	92.01	1.51	18.26	1.70	8.89	0.77	84.01	1.39
Hardwoods:								
Alder / maple	108.71	7.56	53.05	15.03	21.82	13.70	86.17	8.12
Aspen / birch	55.90	12.31	39.48	14.77	8.75	2.96	25.61	6.86
Elm / ash / cottonwood	48.61	12.19	--	--	--	--	47.61	12.05
Tanoak / laurel	137.38	4.53	76.87	5.02	19.43	3.24	113.60	4.03
Western oak	54.51	1.46	33.73	1.20	11.66	0.89	41.09	0.93
Woodland hardwoods	11.79	1.52	11.65	7.20	0.37	0.17	11.09	1.49
Other hardwoods	108.82	12.26	32.56	6.60	5.70	1.40	52.01	6.96
Total	72.84	1.76	37.77	1.26	11.85	0.81	52.93	1.13
Nonstocked	--	--	--	--	--	--	2.54	0.47
All forest types	86.77	1.17	34.28	1.12	10.69	0.58	70.07	0.91

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 bone-dry tons per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 76—Average aboveground biomass per acre of dead trees^a on forest land, by forest type group and stand size class, California, 2006-2015

Forest type group	Stand size class							
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		All classes	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Tons per acre</i>								
Softwoods:								
California mixed conifer	11.85	0.47	3.26	0.96	4.40	1.56	11.39	0.45
Douglas-fir	11.28	1.18	1.60	0.76	14.06	7.35	10.80	1.11
Fir / spruce / mtn. hemlock	18.70	1.19	15.91	8.34	32.05	14.37	19.34	1.35
Hemlock / Sitka spruce	40.90	24.93	--	--	0.70	0.70	37.64	23.41
Lodgepole pine	8.91	0.80	1.00	0.47	1.70	0.78	8.26	0.75
Pinyon / juniper woodlands	0.82	0.10	0.21	0.08	1.55	0.85	0.81	0.10
Ponderosa pine	2.22	0.26	0.59	0.24	1.03	0.48	2.02	0.23
Redwood	19.90	3.13	7.90	2.32	2.78	2.08	18.69	2.91
Western juniper	1.00	0.19	0.48	0.21	0.01	0.01	0.87	0.16
Western white pine	11.39	2.08	--	--	5.22	1.66	9.80	1.64
Other western softwoods	9.71	3.08	2.79	1.59	0.43	0.31	6.49	1.94
Total	9.90	0.31	2.06	0.46	5.62	1.61	9.32	0.29
Hardwoods:								
Alder / maple	14.45	4.49	4.60	3.58	30.89	17.14	14.51	3.90
Aspen / birch	5.44	1.03	1.30	0.82	0.07	0.05	1.47	0.58
Elm / ash / cottonwood	2.19	1.37	--	--	--	--	2.14	1.35
Tanoak / laurel	8.63	0.93	4.74	1.76	15.76	5.80	8.69	0.97
Western oak	3.57	0.24	1.84	0.15	5.75	1.60	3.28	0.27
Woodland hardwoods	2.72	0.63	6.10	4.48	4.17	3.24	3.14	0.74
Other hardwoods	6.71	1.28	1.91	0.68	4.85	2.16	4.84	0.98
Total	4.91	0.29	2.17	0.22	7.01	1.40	4.38	0.27
Nonstocked	--	--	--	--	--	--	17.04	2.69
All forest types	8.54	0.24	2.15	0.20	6.47	1.06	7.70	0.22

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 bone-dry tons per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory. Aboveground biomass is estimated from ground to actual height, includes stem wood, bark, and branches; calculated with regional biomass equations.

Table 77—Average aboveground biomass per acre of live trees^a on forest land, by forest type group and stand age class, California, 2006-2015

Forest type group	Stand age class (years)													
	1-20		21-40		41-60		61-80		81-100		101-120		121-140	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Tons per acre</i>														
Softwoods:														
California mixed conifer	14.31	3.43	39.39	4.15	57.24	3.30	82.60	3.11	94.49	3.25	108.27	4.76	139.09	6.88
Douglas-fir	32.34	6.03	86.71	6.24	111.68	7.86	146.86	12.03	115.26	10.76	187.35	30.45	217.77	30.85
Fir / spruce / mtn. hemlock	7.01	2.89	24.87	7.23	68.73	7.94	85.66	8.72	107.30	5.87	126.91	10.70	127.11	12.78
Hemlock / Sitka spruce	--	--	91.20	91.20	137.75	30.13	--	--	126.59	126.59	527.45	527.45	--	--
Lodgepole pine	5.71	2.75	19.06	9.25	47.83	17.68	50.75	7.09	46.50	9.13	54.65	8.11	68.62	9.93
Pinyon / juniper woodlands	2.18	2.18	2.13	0.14	2.54	0.75	10.49	2.52	12.78	2.02	9.61	3.33	8.58	3.32
Ponderosa pine	7.17	1.40	23.20	2.70	49.25	5.88	41.10	3.34	53.42	3.02	57.42	5.28	69.51	11.92
Redwood	30.17	8.50	89.46	15.22	159.48	15.76	161.14	14.94	256.34	15.37	247.25	26.77	219.85	39.01
Western juniper	--	--	5.45	1.31	6.56	1.01	8.27	0.79	12.95	1.25	16.66	2.88	13.39	3.42
Western white pine			62.06	62.06	19.80	6.06	35.99	35.99	41.03	22.40	51.25	27.49	11.84	11.84
Other western softwoods	16.43	10.34	30.96	14.78	84.47	23.19	31.05	10.85	46.30	27.22	31.55	11.67	24.65	16.29
Total	14.21	1.86	46.00	3.11	68.29	3.39	70.36	2.63	82.05	2.66	92.71	3.80	116.16	5.69
Hardwoods:														
Alder / maple	33.26	13.01	83.90	12.52	103.49	16.86	121.03	17.30	102.62	6.15	201.00	201.00	73.06	73.06
Aspen / birch	--	--	12.91	6.88	28.12	17.80	21.99	1.22	--	--	--	--	81.25	81.25
Elm / ash / cottonwood	--	--	46.67	46.67	--	--	--	--	115.98	115.98	--	--	--	--
Tanoak / laurel	15.96	3.18	73.14	5.55	122.85	5.92	132.05	10.04	139.68	10.70	154.39	23.54	132.64	30.61
Western oak	8.42	1.56	23.09	3.18	36.06	2.55	47.04	2.59	54.09	3.03	65.62	6.14	61.37	6.90
Woodland hardwoods	--	--	0.63	0.63	6.91	0.65	11.53	2.61	10.04	3.12	16.95	16.95	--	--
Other hardwoods	2.03	1.41	32.52	14.11	71.10	16.54	76.73	18.45	64.52	22.04	131.03	44.61	124.36	59.34
Total	10.49	1.54	46.11	3.66	69.85	3.71	64.12	3.59	67.48	3.64	78.77	6.82	71.01	7.89
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All forest types	12.55	1.25	46.05	2.36	69.00	2.48	68.25	2.11	77.95	2.17	89.41	3.32	106.48	4.90

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 bone-dry tons per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all live trees >= 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches;

calculated with regional biomass equations.

Table 77—Average aboveground biomass per acre of live trees^a on forest land, by forest type group and stand age class, California, 2006-2015 (Continued)

Forest type group	Stand age class (years)								Unknown		All classes	
	141-160		161-180		181-200		201+		Mean	SE	Mean	SE
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Tons per acre</i>												
Softwoods:												
California mixed conifer	119.76	5.89	128.97	13.23	133.50	11.50	141.88	6.44	28.23	9.78	101.02	1.74
Douglas-fir	144.84	30.88	201.17	69.79	248.26	43.38	212.00	22.74	32.22	11.97	129.41	5.92
Fir / spruce / mtn. hemlock	123.91	14.46	156.19	22.12	168.01	25.97	188.15	11.89	37.36	37.36	121.15	4.34
Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	128.02	27.25
Lodgepole pine	73.61	9.07	66.13	10.12	73.12	13.25	75.42	7.06	--	--	63.43	3.20
Pinyon / juniper woodlands	5.49	0.58	13.76	2.72	9.92	1.95	15.75	2.02	6.94	0.73	8.72	0.57
Ponderosa pine	54.51	11.37	27.82	6.02	46.05	2.94	51.45	9.95	27.91	27.91	43.73	1.71
Redwood	--	--	226.33	44.99	378.26	150.00	612.13	98.12	--	--	228.44	19.77
Western juniper	18.93	5.36	19.29	6.15	13.74	4.52	23.64	4.07	20.29	2.53	12.93	0.84
Western white pine	47.31	47.31	12.69	12.69	55.41	17.83	54.23	8.54	--	--	44.67	5.65
Other western softwoods	12.19	2.80	20.84	4.32	19.05	3.37	40.31	5.31	33.46	14.20	38.64	4.88
Total	96.93	4.85	105.84	9.58	118.05	10.10	132.91	7.39	8.91	0.99	84.01	1.39
Hardwoods:												
Alder / maple	167.49	167.49	--	--	--	--	--	--	61.27	17.81	86.17	8.12
Aspen / birch	--	--	--	--	--	--	38.82	38.82	6.84	4.88	25.61	6.86
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	46.91	13.58	47.61	12.05
Tanoak / laurel	219.85	22.83	139.71	4.07	86.95	31.04	160.50	17.56	68.29	8.10	113.60	4.03
Western oak	65.88	7.49	58.61	13.73	61.82	11.18	69.14	11.46	33.56	1.04	41.09	0.93
Woodland hardwoods	10.07	4.27	--	--	--	--	47.02	47.02	11.02	2.16	11.09	1.49
Other hardwoods	70.66	18.36	0.81	0.81	--	--	171.20	43.71	25.97	5.87	52.01	6.96
Total	97.34	11.68	63.49	13.48	68.03	11.74	101.38	11.42	34.35	1.06	52.93	1.13
Nonstocked	--	--	--	--	--	--	--	--	2.54	0.47	2.54	0.47
All forest types	97.02	4.55	99.26	8.48	111.57	9.05	130.13	6.82	26.02	0.85	70.07	0.91

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 bone-dry tons per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes. Aboveground biomass of the tree from ground to tip, includes stem wood, bark, and branches;

calculated with regional biomass equations.

Table 78—Average aboveground biomass per acre of dead trees^a on forest land, by forest type group and stand age class, California, 2006-2015

Forest type group	Stand age class (years)													
	1-20		21-40		41-60		61-80		81-100		101-120		121-140	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Tons per acre</i>														
Softwoods:														
California mixed conifer	8.61	2.88	1.88	0.56	3.96	0.71	5.32	0.59	8.33	0.58	10.61	1.01	13.64	1.37
Douglas-fir	3.58	1.19	3.40	1.08	9.79	1.82	6.55	1.52	14.19	5.14	2.42	1.58	23.94	9.35
Fir / spruce / mtn. hemlock	49.91	23.49	3.25	1.64	4.53	1.22	10.79	2.10	14.95	2.51	19.16	2.71	24.11	4.37
Lodgepole pine	1.48	1.48	0.18	0.18	1.34	1.34	6.71	1.47	4.18	1.25	6.80	1.56	6.69	3.13
Pinyon / juniper woodlands	0.59	0.59	--	--	0.02	0.02	0.85	0.31	0.79	0.25	1.03	0.42	0.59	0.28
Ponderosa pine	1.32	0.45	0.15	0.07	1.51	0.41	1.73	0.55	1.87	0.38	3.67	1.10	2.99	1.07
Redwood	26.69	17.54	16.20	7.81	32.25	10.19	9.23	2.19	16.71	3.85	9.27	3.25	8.44	1.62
Western juniper	0.11	0.11	--	--	0.52	0.22	0.33	0.10	0.47	0.17	0.65	0.32	0.89	0.38
Western white pine			3.45	3.45	6.62	2.27	10.51	10.51	15.15	12.33	11.30	6.20	8.30	8.30
Other western softwoods	2.59	1.94	0.13	0.08	24.32	16.37	2.75	1.44	4.01	3.35	8.05	4.01	1.05	1.05
Other softwoods														
Total	10.19	2.91	2.64	0.74	7.27	1.22	4.90	0.41	7.15	0.48	9.20	0.71	12.41	1.14
Hardwoods:														
Alder / maple	28.23	13.48	12.52	4.55	14.68	11.10	5.92	1.80	3.38	3.38	32.19	32.19	22.23	22.23
Aspen / birch			0.66	0.66	0.61	0.48	1.17	1.17					7.07	7.07
Elm / ash / cottonwood			2.19	2.19	--	--			--	--				
Tanoak / laurel	13.42	6.03	9.04	2.96	5.55	0.80	4.28	0.74	12.47	3.35	6.74	2.14	19.47	8.75
Western oak	14.64	5.30	1.41	0.43	1.72	0.24	3.61	0.60	4.03	0.47	4.00	0.59	5.62	1.11
Woodland hardwoods	6.67	6.67	--	--	2.13	0.71	5.96	2.86	6.79	4.58	2.95	2.95		
Other hardwoods	4.49	2.60	3.89	1.38	3.17	1.14	4.51	1.57	5.21	2.65	12.39	4.38	5.29	2.72
Total	13.92	3.61	5.20	1.18	3.57	0.54	3.86	0.47	5.40	0.68	4.75	0.62	6.77	1.23
Nonstocked														
All forest types	11.85	2.28	3.73	0.66	5.59	0.71	4.55	0.31	6.66	0.39	8.14	0.57	11.20	0.94

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 bone-dry tons per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory. Aboveground biomass is estimated from ground to actual height, includes stem wood, bark, and branches;

calculated with regional biomass equations.

Table 78—Average aboveground biomass per acre of dead trees^a on forest land, by forest type group and stand age class, California, 2006–2015 (Continued)

Forest type group	Stand age class (years)											
	141-160		161-180		181-200		201+		Unknown		All classes	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Tons per acre</i>												
Softwoods:												
California mixed conifer	17.51	1.55	19.19	3.80	20.39	2.85	22.05	2.08	34.29	20.23	11.39	0.45
Douglas-fir	14.27	6.97	27.23	8.14	42.19	12.72	22.89	3.64	3.17	1.57	10.80	1.11
Fir / spruce / mtn. hemlock	20.77	4.64	15.25	3.29	33.76	7.22	28.56	3.34	--	--	19.34	1.35
Lodgepole pine	11.90	3.17	8.63	2.46	9.52	1.93	10.73	1.50	--	--	8.26	0.75
Pinyon / juniper woodlands	0.82	0.50	0.99	0.36	1.23	0.45	0.81	0.19	0.80	0.15	0.81	0.10
Ponderosa pine	3.82	1.21	3.20	2.37	5.84	5.19	5.46	1.55	2.75	2.75	2.02	0.23
Redwood			12.00	6.66	24.05	5.84	19.33	6.08			18.69	2.91
Western juniper	1.56	0.93	3.30	2.22	1.70	0.93	2.62	0.88	--	--	0.87	0.16
Western white pine	--	--	12.91	12.91	13.99	5.52	9.82	2.31	--	--	9.80	1.64
Other western softwoods	0.14	0.10	4.10	3.31	1.78	0.88	7.39	1.41	2.04	1.02	6.49	1.94
Other softwoods	--	--	--	--	--	--	--	--	--	--	--	--
Total	13.98	1.20	13.28	1.79	18.48	2.03	17.08	1.12	1.53	0.60	9.32	0.29
Hardwoods:												
Alder / maple	22.08	22.08	--	--	--	--	--	--	4.25	2.77	14.51	3.90
Aspen / birch	--	--	--	--	--	--	3.19	3.19	--	--	1.47	0.58
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	2.17	1.52	2.14	1.35
Tanoak / laurel	12.28	2.86	8.79	5.33	3.40	2.08	33.15	13.53	6.03	1.71	8.69	0.97
Western oak	6.27	1.93	8.42	4.51	7.62	2.69	7.10	2.04	1.67	0.15	3.28	0.27
Woodland hardwoods	2.60	1.55	--	--	--	--	0.97	0.97	1.83	0.40	3.14	0.74
Other hardwoods	0.11	0.11	0.17	0.17	--	--	17.74	1.56	4.33	2.83	4.84	0.98
Total	7.28	1.48	7.95	3.84	6.58	2.13	15.19	4.52	1.96	0.18	4.38	0.27
Nonstocked	--	--	--	--	--	--	--	--	17.04	2.69	17.04	2.69
All forest types	12.54	1.01	12.46	1.64	16.94	1.83	16.91	1.09	4.11	0.45	7.70	0.22

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 bone-dry tons per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes all dead trees ≥ 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory. Aboveground biomass is estimated from ground to actual height, includes stem wood, bark, and branches;

calculated with regional biomass equations.

Table 79—Aboveground carbon mass^a of live trees^b on forest land, by ownership and land status, California, 2006–2015

Ownership	Land Status														
	Unreserved forests							Reserved forests							
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest land		
Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand megagrams</i>															
USDA Forest Service:															
National Forest	365,717.0	7,682.1	25,854.6	2,003.6	391,571.6	7,493.2	124,727.1	5,921.0	16,627.9	1,752.1	141,355.0	5,869.4	532,926.6	8,561.9	
Other federal government:															
Bureau of Land Management	10,756.7	2,071.8	6,171.1	857.0	16,927.8	2,222.2	2,517.6	987.0	1,236.4	301.0	3,753.9	1,031.9	20,681.7	2,426.2	
Departments of Defense or Energy	249.8	194.7	767.5	274.5	1,017.3	336.5	--	--	141.9	146.8	141.9	146.8	1,159.2	367.1	
National Park Service	--	--	--	--	--	--	57,670.0	5,509.3	6,035.2	1,104.8	63,705.3	5,563.8	63,705.3	5,563.8	
U.S. Fish and Wildlife Service	--	--	--	--	--	--	26.0	26.6	13.7	13.8	39.7	30.0	39.7	30.0	
Other federal	--	--	483.4	154.2	483.4	154.2	--	--	77.4	53.1	77.4	53.1	560.8	163.1	
Total	11,006.5	2,077.8	7,421.9	907.8	18,428.5	2,246.0	60,213.6	5,550.4	7,504.6	1,140.8	67,718.3	5,598.6	86,146.7	5,686.2	
State and local government:															
Local	2,490.8	1,081.9	2,015.4	522.8	4,506.1	1,209.3	3,384.5	1,353.4	3,308.4	732.5	6,692.9	1,498.0	11,199.1	1,918.8	
State	7,459.3	1,976.1	591.5	387.9	8,050.8	1,981.6	28,361.8	6,219.6	4,539.7	1,129.7	32,901.4	6,286.2	40,952.2	5,913.7	
Other public	--	--	21.1	19.1	21.1	19.1	310.7	346.0	36.5	39.4	347.1	348.2	368.2	348.7	
Total	9,950.1	2,241.9	2,627.9	651.2	12,578.0	2,310.8	32,056.9	6,351.7	7,884.6	1,322.9	39,941.5	6,429.2	52,519.5	6,142.4	
Corporate private	144,937.3	5,688.8	11,983.6	1,347.4	156,920.9	5,794.6	--	--	--	--	--	--	156,920.9	5,794.6	
Noncorporate private:															
Nongovernmental conservation or natural resource organizations	6,939.6	1,264.8	995.0	250.8	7,934.6	1,289.5	--	--	--	--	--	--	7,934.6	1,289.5	
Unincorporated partnerships, associations, clubs	6,624.8	1,647.6	1,157.2	379.5	7,782.0	1,694.2	--	--	--	--	--	--	7,782.0	1,694.2	
Native American	10,350.1	2,297.9	528.0	254.6	10,878.2	2,310.3	--	--	--	--	--	--	10,878.2	2,310.3	
Individual	106,188.9	5,962.6	53,911.8	2,475.0	160,100.7	6,232.4	--	--	--	--	--	--	160,100.7	6,232.4	
Total	130,103.5	6,432.1	56,592.1	2,504.4	186,695.5	6,650.7	--	--	--	--	--	--	186,695.5	6,650.7	
All private	275,040.8	6,924.4	68,575.6	2,757.8	343,616.4	6,904.4	--	--	--	--	--	--	343,616.4	6,904.4	
All owners	661,714.4	10,531.7	104,480.1	3,573.7	766,194.5	10,373.8	216,997.7	10,294.2	32,017.0	2,470.9	249,014.8	10,334.2	1,015,209.3	13,134.3	

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 megagrams was estimated.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units. Convert megagrams of carbon to tons of biomass by multiplying by 2.204586. The result will be approximate due to rounding.

^b Includes all live trees >= 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 80—Aboveground carbon mass^a of dead trees^b on forest land, by ownership and land status, California, 2006-2015

Ownership	Land Status													
	Unreserved forests						Reserved forests							
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest land	
Thousand megagrams														
USDA Forest Service:	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
National Forest	47,101.2	2,051.0	2,449.3	263.2	49,550.5	2,049.2	21,390.4	1,490.2	2,503.4	360.4	23,893.8	1,498.2	73,444.3	2,492.6
Other federal government:														
Bureau of Land Management	851.3	303.3	449.5	90.4	1,300.8	310.9	237.9	145.5	96.3	32.0	334.2	149.0	1,635.0	344.3
Departments of Defense or Energy	--	--	29.8	18.2	29.8	18.2	--	--	--	--	--	--	29.8	18.2
National Park Service	--	--	--	--	--	--	10,222.6	1,265.0	671.9	158.1	10,894.5	1,272.0	10,894.5	1,272.0
U.S. Fish and Wildlife Service	--	--	--	--	--	--	11.2	11.5	--	--	11.2	11.5	11.2	11.5
Other federal	--	--	62.6	52.0	62.6	52.0	--	--	1.1	1.3	1.1	1.3	63.7	52.1
Total	851.3	303.3	541.9	105.9	1,393.2	315.7	10,471.7	1,269.3	769.4	160.7	11,241.1	1,276.2	12,634.3	1,287.7
State and local government:														
Local	127.9	55.6	76.2	36.6	204.1	66.6	209.6	113.1	112.6	47.0	322.2	122.4	526.3	138.9
State	565.3	275.0	29.5	17.2	594.8	275.5	1,696.7	379.4	321.3	114.2	2,018.0	393.5	2,612.9	435.1
Other public	--	--	--	--	--	--	5.1	5.7	2.0	2.2	7.1	6.1	7.1	6.1
Total	693.2	280.3	105.7	40.5	799.0	283.2	1,911.4	394.6	435.9	123.3	2,347.3	410.5	3,146.3	454.1
Corporate private	12,543.0	1,162.9	516.8	100.9	13,059.8	1,166.0	--	--	--	--	--	--	13,059.8	1,166.0
Noncorporate private:														
Nongovernmental conservation or natural resource organizations	486.1	159.4	50.9	24.2	537.0	161.2	--	--	--	--	--	--	537.0	161.2
Unincorporated partnerships, associations, clubs	267.0	110.7	29.6	17.0	296.7	111.9	--	--	--	--	--	--	296.7	111.9
Native American	644.2	245.2	14.7	13.2	658.9	245.6	--	--	--	--	--	--	658.9	245.6
Individual	5,529.1	625.1	2,316.1	205.1	7,845.2	653.8	--	--	--	--	--	--	7,845.2	653.8
Total	6,926.4	693.0	2,411.3	207.0	9,337.7	718.6	--	--	--	--	--	--	9,337.7	718.6
All private	19,469.5	1,312.1	2,928.1	228.7	22,397.5	1,325.0	--	--	--	--	--	--	22,397.5	1,325.0
All owners	68,115.1	2,459.7	6,025.0	366.1	74,140.1	2,465.8	33,773.5	1,996.3	3,708.7	413.2	37,482.2	2,009.2	111,622.3	3,107.7

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 megagrams was estimated.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units.

Convert megagrams of carbon to tons of biomass by multiplying by 2.204586. The result will be approximate due to rounding.

^b Includes all dead trees >= 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 81—Aboveground carbon mass^a of live trees^b on forest land by, forest type group and ownership group, California, 2006–2015

Forest type group	Ownership Group													
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All private		All owners	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand megagrams</i>														
Softwoods:														
California mixed conifer	264,085.5	8,221.0	28,431.4	3,427.4	5,448.8	1,608.0	48,724.4	3,335.6	19,057.0	2,217.9	67,781.4	3,841.9	365,747.0	9,633.3
Douglas-fir	23,282.0	3,597.8	4,896.1	1,767.2	3,696.4	1,355.0	16,149.1	2,240.6	18,042.3	2,788.6	34,191.3	3,509.2	66,065.9	5,504.9
Fir / spruce / mtn. hemlock	90,037.5	6,327.9	12,980.4	2,503.0	1,026.4	602.1	6,782.8	1,362.5	2,017.5	764.4	8,800.3	1,554.4	112,844.6	7,014.4
Lodgepole pine	19,867.7	2,038.7	7,602.4	1,447.9	231.6	199.5	623.9	305.9	1,131.0	509.9	1,754.9	594.4	29,456.5	2,564.8
Pinyon / juniper woodlands	3,490.3	431.7	1,978.1	272.2	239.6	112.3	100.2	45.9	293.6	102.3	393.8	112.1	6,101.8	533.6
Ponderosa pine	29,731.2	2,298.7	1,232.6	388.3	392.7	241.8	6,824.8	1,005.2	8,834.9	1,260.3	15,659.8	1,590.2	47,016.3	2,829.5
Redwood	3,592.9	2,316.5	8,580.9	4,148.9	19,885.5	6,449.2	24,853.3	3,540.7	22,043.9	3,865.2	46,897.2	5,132.2	78,956.5	9,544.3
Western juniper	5,471.9	674.8	1,585.8	264.1	165.3	179.2	281.8	86.3	1,428.3	251.2	1,710.1	264.8	8,933.0	792.2
Western white pine	3,248.6	778.0	225.3	158.1	--	--	--	--	--	--	--	--	3,473.8	793.9
Other western softwoods	3,831.6	671.1	1,907.6	548.5	178.3	177.6	1,810.6	891.6	2,157.9	994.4	3,968.4	1,335.6	9,886.0	1,603.9
Other softwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	446,639.1	9,201.0	69,420.5	5,671.0	31,264.7	6,216.2	106,150.8	5,161.9	75,006.3	5,346.5	181,157.1	6,628.0	728,481.4	13,786.5
Hardwoods:														
Alder / maple	926.6	417.0	2,093.7	891.9	463.1	377.2	3,414.4	1,029.6	1,665.0	593.5	5,079.4	1,184.8	8,562.7	1,584.3
Aspen / birch	634.1	278.1	5.6	4.2	21.4	23.8	167.8	161.4	103.1	84.0	271.0	181.9	932.0	333.2
Elm / ash / cottonwood	105.2	109.0	--	--	169.3	141.4	19.0	19.5	353.3	263.6	372.3	264.3	646.8	318.9
Tanoak / laurel	21,812.2	3,150.6	3,529.3	1,202.3	9,571.5	2,267.3	24,180.3	2,915.8	36,207.6	3,781.6	60,387.9	4,632.4	95,300.8	6,128.1
Western oak	57,517.5	3,681.9	10,173.6	1,277.5	8,453.5	1,055.7	20,838.3	1,984.9	69,102.0	2,912.4	89,940.3	3,390.8	166,084.9	5,229.0
Woodland hardwoods	709.6	185.6	233.7	81.9	202.1	112.7	29.1	28.0	158.0	94.4	187.1	98.4	1,332.5	252.1
Other hardwoods	3,928.8	1,301.8	673.3	381.5	2,374.0	1,093.7	1,758.9	677.8	4,066.2	981.2	5,825.1	1,187.9	12,801.1	2,151.4
Total	85,634.0	4,896.3	16,709.1	1,971.1	21,254.8	2,603.5	50,407.8	3,658.6	111,655.2	4,683.9	162,062.9	5,547.5	285,660.9	7,979.3
Nonstocked	653.6	167.1	17.1	8.5	--	--	362.3	126.3	34.0	19.1	396.3	127.7	1,067.0	210.5
All forest types	532,926.6	8,561.9	86,146.7	5,686.2	52,519.5	6,142.4	156,920.9	5,794.6	186,695.5	6,650.7	343,616.4	6,904.4	1,015,209.3	13,134.3

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- less than 50 megagrams was estimated.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units.

Convert megagrams of carbon to tons of biomass by multiplying by 2.204586. The result will be approximate due to rounding.

^b Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 82—Aboveground carbon mass^a of dead trees^b on forest land, by forest type group and ownership group, California, 2006-2015

Forest type group	Ownership Group													
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All private		All owners	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand megagrams</i>														
Softwoods:														
California mixed conifer	32,114.5	1,610.8	4,599.3	733.1	480.0	267.8	3,090.0	343.0	940.1	223.5	4,030.1	405.2	41,223.9	1,822.1
Douglas-fir	2,599.6	518.0	284.7	146.7	326.7	198.2	1,219.3	282.3	1,081.3	258.1	2,300.7	380.7	5,511.7	688.5
Fir / spruce / mtn. hemlock	14,069.8	1,321.6	3,073.5	787.9	131.4	80.6	514.4	198.2	224.3	107.2	738.6	225.0	18,013.4	1,557.7
Lodgepole pine	2,495.3	343.2	979.8	241.1	44.9	35.6	195.7	123.8	120.7	56.9	316.4	136.1	3,836.4	441.1
Pinyon / juniper woodlands	370.0	66.3	141.7	28.7	16.4	9.1	7.9	5.5	29.8	13.4	37.8	14.5	565.9	74.2
Ponderosa pine	1,641.0	245.8	97.5	68.7	6.3	8.0	204.8	48.3	221.7	58.1	426.6	75.3	2,171.5	266.1
Redwood	4.5	3.6	938.0	630.0	881.6	299.3	2,893.6	758.2	1,743.4	517.6	4,637.0	913.0	6,461.1	1,148.9
Western juniper	436.6	106.2	74.1	27.6	18.9	30.3	15.7	9.6	56.4	19.3	72.2	21.5	601.8	115.9
Western white pine	707.3	178.6	54.8	41.6	--	--	--	--	--	--	--	--	762.1	183.4
Other western softwoods	574.2	144.8	252.2	104.6	15.8	12.8	619.2	481.3	197.8	114.5	817.0	494.7	1,659.2	526.1
Other softwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	55,012.7	2,017.1	10,495.6	1,241.3	1,922.2	407.0	8,760.7	1,013.9	4,615.7	639.6	13,376.4	1,177.7	80,806.9	2,656.2
Hardwoods:														
Alder / maple	187.3	94.9	381.1	295.4	9.1	6.9	746.8	325.4	117.8	54.7	864.6	329.7	1,442.1	452.7
Aspen / birch	50.0	24.0	--	--	3.4	3.8	--	--	--	--	--	--	53.5	24.3
Elm / ash / cottonwood	2.3	2.4	--	--	1.4	1.9	--	--	25.4	23.2	25.4	23.2	29.1	23.4
Tanoak / laurel	2,622.5	635.5	625.7	317.6	493.5	163.6	2,091.3	495.8	1,459.4	243.3	3,550.7	548.8	7,292.5	911.7
Western oak	7,914.5	1,072.0	956.5	199.5	476.4	128.0	1,072.0	152.0	2,847.3	239.1	3,919.3	280.3	13,266.8	1,131.9
Woodland hardwoods	276.7	97.9	60.3	25.9	21.1	12.7	1.2	1.1	18.4	11.9	19.6	12.0	377.7	102.8
Other hardwoods	754.5	246.7	61.1	60.0	60.7	40.0	90.8	39.5	225.2	81.3	315.9	90.2	1,192.3	272.4
Total	11,808.0	1,267.3	2,084.7	469.3	1,065.7	208.8	4,002.0	610.6	4,693.5	351.0	8,695.5	694.7	23,653.9	1,531.4
Nonstocked	6,623.5	1,255.9	54.0	28.3	158.3	177.0	297.1	124.3	28.6	12.6	325.7	124.9	7,161.5	1,274.7
All forest types	73,444.3	2,492.6	12,634.3	1,287.7	3,146.3	454.1	13,059.8	1,166.0	9,337.7	718.6	22,397.5	1,325.0	111,622.3	3,107.7

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 megagrams was estimated.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units.

Convert megagrams of carbon to tons of biomass by multiplying by 2.204586. The result will be approximate due to rounding.

^b Includes all dead trees >= 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 83—Aboveground carbon mass^a of live trees^b on forest land, by forest type group and stand size class, California, 2006-2015

Forest type group	Stand size class						All classes	
	Large-diameter stands		Medium-diameter stands		Small-diameter stands			
	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand megagrams</i>								
Softwoods:								
California mixed conifer	362,671.4	9,642.8	1,664.2	417.9	1,411.4	245.2	365,747.0	9,633.3
Douglas-fir	64,042.5	5,474.8	1,450.7	455.6	572.7	254.5	66,065.9	5,504.9
Fir / spruce / mtn. hemlock	111,779.3	7,004.8	489.5	211.9	575.8	184.9	112,844.6	7,014.4
Lodgepole pine	28,442.6	2,541.9	547.3	306.1	466.6	204.1	29,456.5	2,564.8
Pinyon / juniper woodlands	5,896.8	526.9	165.8	98.0	39.2	19.9	6,101.8	533.6
Ponderosa pine	45,568.5	2,824.5	1,096.2	226.0	351.6	103.7	47,016.3	2,829.5
Redwood	78,509.5	9,544.1	246.2	132.9	200.7	95.2	78,956.5	9,544.3
Western juniper	8,409.7	786.1	305.0	76.5	218.4	68.3	8,933.0	792.2
Western white pine	3,192.5	783.2	--	--	281.3	130.0	3,473.8	793.9
Other western softwoods	8,803.3	1,582.2	633.5	220.9	449.1	145.4	9,886.0	1,603.9
Other softwoods	--	--	--	--	--	--	--	--
Total	717,316.0	13,829.0	6,598.5	805.0	4,566.9	510.2	728,481.4	13,786.5
Hardwoods:								
Alder / maple	7,199.0	1,486.7	1,087.8	513.0	275.9	200.4	8,562.7	1,584.3
Aspen / birch	423.3	256.4	329.5	192.4	179.2	90.9	932.0	333.2
Elm / ash / cottonwood	646.8	318.9	--	--	--	--	646.8	318.9
Tanoak / laurel	81,773.3	5,915.6	11,767.0	1,722.3	1,760.6	408.8	95,300.8	6,128.1
Western oak	111,805.2	4,745.5	47,468.6	2,572.6	6,811.1	681.1	166,084.9	5,229.0
Woodland hardwoods	1,190.1	236.1	139.8	88.5	2.6	1.4	1,332.5	252.1
Other hardwoods	10,319.6	2,072.7	1,962.6	577.8	518.8	153.2	12,801.1	2,151.4
Total	213,357.3	7,657.4	62,755.4	3,158.5	9,548.2	834.4	285,660.9	7,979.3
Nonstocked	--	--	--	--	--	--	1,067.0	210.5
	930,673.3	13,660.0	69,353.8	3,246.4	14,115.1	972.0	1,015,209.3	13,134.3
All forest types								

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 megagrams was estimated.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units. Convert megagrams of carbon to tons of biomass by multiplying by 2.204586. The result will be approximate due to rounding.

^b Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 84—Aboveground carbon mass^a of dead trees^b on forest land, by forest type group and stand size class, California, 2006-2015

Forest type group	Stand size class								All classes	
	Large-diameter stands		Medium-diameter stands		Small-diameter stands					
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand megagrams</i>										
Softwoods:										
California mixed conifer	40,335.4	1,806.3	198.6	71.5	689.9	258.6	41,223.9	1,822.1		
Douglas-fir	5,104.8	654.6	52.4	27.5	354.5	207.5	5,511.7	688.5		
Fir / spruce / mtn. hemlock	16,338.4	1,349.4	175.6	122.2	1,499.4	779.6	18,013.4	1,557.7		
Lodgepole pine	3,777.7	440.4	14.3	9.8	44.4	24.8	3,836.4	441.1		
Pinyon / juniper woodlands	502.1	66.6	10.9	4.7	52.9	33.0	565.9	74.2		
Ponderosa pine	2,049.4	262.8	44.5	19.1	77.5	38.7	2,171.5	266.1		
Redwood	6,325.0	1,140.8	90.3	53.7	45.7	34.2	6,461.1	1,148.9		
Western juniper	574.4	115.1	26.8	13.5	0.7	0.6	601.8	115.9		
Western white pine	663.7	177.0	--	--	98.4	48.4	762.1	183.4		
Other western softwoods	1,504.1	519.4	132.1	81.7	23.0	17.2	1,659.2	526.1		
Other softwoods	--	--	--	--	--	--	--	--		
Total	77,175.0	2,520.9	745.5	176.0	2,886.4	851.1	80,806.9	2,656.2		
Hardwoods:										
Alder / maple	957.0	357.4	94.4	82.5	390.6	266.4	1,442.1	452.7		
Aspen / birch	41.2	22.8	10.8	8.3	1.5	1.1	53.5	24.3		
Elm / ash / cottonwood	29.1	23.4	--	--	--	--	29.1	23.4		
Tanoak / laurel	5,138.9	649.2	725.3	287.9	1,428.2	584.1	7,292.5	911.7		
Western oak	7,318.9	560.1	2,591.5	242.9	3,356.3	963.1	13,266.8	1,131.9		
Woodland hardwoods	274.6	77.2	73.2	64.0	29.9	22.6	377.7	102.8		
Other hardwoods	636.1	161.5	114.9	47.5	441.3	213.0	1,192.3	272.4		
Total	14,395.8	933.7	3,610.2	393.1	5,647.8	1,177.1	23,653.9	1,531.4		
Nonstocked	--	--	--	--	--	--	7,161.5	1,274.7		
All forest types	91,570.9	2,586.4	4,355.7	431.1	8,534.2	1,445.2	111,622.3	3,107.7		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 megagrams was estimated.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units. Convert megagrams of carbon to tons of biomass by multiplying by 2.204586. The result will be approximate due to rounding.

^b Includes all dead trees >= 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 85—Aboveground carbon mass^a of live trees^b on forest land, by species group and diameter class, California, 2006–2015

Species group	Diameter class (inches)													
	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	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand megagrams</i>														
Softwoods:														
Douglas-fir	598.6	36.5	1,570.2	108.4	4,899.0	197.3	6,838.2	284.9	8,473.3	352.4	9,784.6	432.3	10,563.6	489.7
Incense-cedar	191.0	17.5	515.9	47.1	1,219.7	69.2	1,466.9	85.1	1,844.6	115.0	2,033.6	137.0	1,856.3	138.3
Lodgepole pine	684.2	110.9	544.9	102.7	878.5	119.3	984.0	108.8	1,475.7	167.8	1,620.7	154.0	2,154.0	219.8
Ponderosa and Jeffrey pines	262.3	22.0	722.2	58.1	2,102.0	104.2	3,281.9	164.6	4,588.1	231.2	5,811.4	284.9	6,596.8	334.2
Redwood	149.1	22.2	251.3	38.5	567.8	54.1	920.4	87.8	1,273.4	128.5	1,785.9	180.0	2,099.7	199.5
Sitka spruce	10.2	7.2	12.1	8.5	18.6	9.7	40.1	17.8	30.9	15.1	49.2	32.5	74.6	39.0
Sugar pine	34.3	4.9	94.9	20.7	233.9	22.5	389.1	36.6	568.5	55.8	743.9	71.9	826.1	92.6
True fir	3,337.4	207.5	2,521.1	162.3	4,345.4	174.8	5,725.6	229.7	7,723.3	322.2	8,893.5	378.8	10,606.7	486.3
Western hemlock	16.4	7.1	53.5	24.8	46.2	21.4	58.5	19.1	75.9	28.4	97.5	36.8	118.1	53.5
Western juniper	55.1	9.3	181.7	33.9	285.1	25.1	461.9	40.3	608.7	53.0	584.0	55.6	665.1	71.5
Western white pine	123.9	26.9	76.5	19.4	112.0	15.5	131.6	20.0	167.7	28.3	167.4	30.0	195.0	38.3
Woodland softwoods	26.2	4.5	40.2	8.5	114.8	12.9	242.9	25.2	372.9	37.8	497.0	55.8	636.9	71.1
Other western softwoods	650.2	106.3	461.9	77.1	750.3	77.0	940.7	87.6	1,049.3	89.4	1,188.1	112.5	1,296.0	131.7
Total	6,138.9	268.8	7,046.4	252.7	15,573.3	325.5	21,481.9	431.2	28,252.4	565.8	33,256.8	679.3	37,689.0	813.2
Hardwoods:														
Cottonwood and aspen	139.9	37.0	115.2	44.3	70.6	25.0	60.0	18.4	61.0	18.7	76.1	25.8	103.4	36.2
Oak	2,243.2	140.3	6,865.8	425.2	12,524.0	458.5	16,383.1	566.4	17,146.8	602.5	15,501.7	586.3	13,672.8	586.3
Red alder	47.5	20.0	113.2	58.2	199.1	41.1	402.2	67.4	552.2	94.1	791.8	158.9	484.0	114.8
Tanoak	1,340.0	99.1	2,695.1	204.1	4,729.0	292.1	5,845.4	367.2	6,383.6	432.4	6,060.6	430.3	5,142.4	411.3
Woodland hardwoods	16.6	4.8	18.8	7.2	47.1	10.5	66.1	14.8	96.0	22.6	77.1	15.6	67.4	16.5
Other western hardwoods	855.6	70.5	1,886.1	178.7	2,679.7	150.4	3,353.8	186.5	3,701.6	219.8	3,590.3	239.0	3,692.8	269.3
Total	4,642.7	191.1	11,694.2	510.9	20,249.5	565.9	26,110.7	702.5	27,941.2	776.5	26,097.6	798.2	23,162.8	799.1
All species groups	10,781.6	324.3	18,740.6	564.3	35,822.8	640.7	47,592.6	795.0	56,193.7	922.4	59,354.3	996.1	60,851.8	1,096.0

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50 megagrams was estimated.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units.

Convert megagrams of carbon to tons of biomass by multiplying by 2.204586. The result will be approximate due to rounding.

^b Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 85—Aboveground carbon mass^a of live trees^b on forest land, by species group and diameter class, California, 2006–2015 (Continued)

Species group	Diameter class (inches)													
	15.0-16.9		17.0-18.9		19.0-20.9		21.0-22.9		23.0-24.9		25.0-26.9		27.0-28.9	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand megagrams</i>														
Softwoods:														
Douglas-fir	10,784.9	536.3	11,868.5	622.2	10,802.3	653.0	9,347.8	625.9	8,531.3	527.4	9,350.5	416.5	8,639.4	421.8
Incense-cedar	2,194.0	171.5	2,200.9	189.6	2,441.9	220.2	2,180.0	244.0	1,932.1	193.7	2,286.2	163.8	1,876.8	142.4
Lodgepole pine	2,010.8	218.0	2,374.9	246.7	2,582.2	284.7	2,459.3	295.1	2,063.2	255.7	1,992.3	187.2	1,640.2	172.9
Ponderosa and Jeffrey pines	7,183.3	372.0	7,749.9	447.0	7,572.5	481.5	7,636.6	510.7	6,540.7	423.4	5,769.6	299.2	6,062.2	314.9
Redwood	2,575.6	254.4	2,662.2	266.0	3,091.0	370.3	3,189.7	386.0	3,515.5	396.2	3,841.5	392.4	3,732.0	348.2
Sitka spruce	93.9	64.6	137.3	94.6	78.2	47.7	264.6	179.8	42.4	23.4	100.4	40.3	56.4	25.8
Sugar pine	1,005.8	123.1	1,251.6	157.3	1,458.0	190.4	1,734.3	247.8	1,858.1	232.4	2,001.3	158.2	2,522.3	199.3
True fir	12,230.1	593.4	12,316.3	662.9	13,118.4	700.3	11,806.9	742.5	11,189.2	640.4	10,907.8	529.5	11,707.1	591.3
Western hemlock	105.7	48.6	143.4	59.4	151.3	82.4	177.9	96.7	5.1	5.2	83.4	33.0	64.4	34.7
Western juniper	553.1	66.8	710.8	88.0	479.9	75.2	400.3	69.0	348.9	60.4	253.7	32.2	182.0	28.7
Western white pine	225.6	56.8	335.0	80.1	285.0	72.9	249.8	70.4	265.3	55.3	350.0	49.7	298.3	55.7
Woodland softwoods	621.7	68.0	684.3	77.2	490.8	65.1	357.0	66.0	308.9	51.0	231.8	30.7	166.5	27.2
Other western softwoods	1,515.1	167.5	1,799.5	212.9	2,017.8	273.3	1,757.3	257.6	1,415.3	202.7	1,298.6	149.3	1,168.4	135.4
Total	41,099.5	945.5	44,234.6	1,100.4	44,569.3	1,188.2	41,561.6	1,274.1	38,016.0	1,083.1	38,467.3	875.6	38,116.0	896.0
Hardwoods:														
Cottonwood and aspen	138.8	54.3	84.9	38.9	147.3	69.6	120.9	57.3	182.1	82.2	66.6	25.1	114.5	41.7
Oak	11,901.4	534.1	11,072.6	585.5	8,518.8	538.9	7,009.5	538.4	5,821.2	449.4	4,070.2	225.8	3,148.0	215.8
Red alder	522.8	133.1	392.4	125.3	211.8	74.3	55.9	37.6	135.8	69.2	27.3	14.4	11.7	11.2
Tanoak	4,207.4	395.8	3,448.5	380.9	3,609.3	404.8	2,973.8	405.5	2,357.6	360.3	1,356.8	158.3	1,144.8	149.9
Woodland hardwoods	71.9	17.4	65.4	16.7	68.0	20.1	12.7	7.2	15.8	7.8	25.0	7.8	14.6	6.6
Other western hardwoods	2,819.6	254.5	3,182.3	309.4	1,939.9	244.2	1,688.5	251.1	1,585.9	214.2	975.4	101.0	788.8	95.4
Total	19,662.0	738.3	18,246.1	789.9	14,495.1	749.4	11,861.2	731.6	10,098.5	639.6	6,521.3	305.4	5,222.3	293.7
All species groups	60,761.5	1,152.1	62,480.7	1,311.1	59,064.3	1,370.4	53,422.8	1,447.8	48,114.4	1,238.7	44,988.5	916.5	43,338.3	939.1

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50 megagrams was estimated.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units.

Convert megagrams of carbon to tons of biomass by multiplying by 2.204586. The result will be approximate due to rounding.

^b Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 85—Aboveground carbon mass^a of live trees^b on forest land, by species group and diameter class, California, 2006–2015 (Continued)

Species group	Diameter class (inches)													
	29.0-30.9		31.0-32.9		33.0-34.9		35.0-36.9		37.0-38.9		39.0-40.9		41.0-42.9	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand megagrams</i>														
Softwoods:														
Douglas-fir	8,734.7	458.9	8,149.8	442.0	7,879.5	461.1	7,146.0	474.1	7,384.2	498.1	7,045.8	504.3	5,445.7	467.5
Incense-cedar	1,754.0	150.1	1,652.9	145.3	1,654.5	153.1	1,415.2	151.8	1,484.4	179.3	1,248.4	162.2	1,132.8	150.9
Lodgepole pine	1,451.6	189.2	1,165.1	151.8	745.2	117.2	637.7	99.5	461.4	82.4	445.3	96.7	292.6	71.9
Ponderosa and Jeffrey pines	5,457.8	305.0	5,078.9	331.9	4,583.9	330.2	3,912.8	322.3	2,853.5	260.0	3,470.6	298.8	2,524.4	254.4
Redwood	3,377.5	357.3	3,103.6	358.5	2,961.3	342.3	2,447.0	301.5	2,564.7	353.4	2,477.7	343.7	2,041.1	328.9
Sitka spruce	86.1	37.3	45.8	24.6	90.7	38.8	52.4	42.2	61.7	33.2	35.0	25.5	95.0	45.3
Sugar pine	2,438.2	212.7	2,176.6	217.1	2,831.5	259.4	2,362.0	266.5	1,922.7	231.9	1,981.6	253.0	1,697.4	242.8
True fir	10,588.9	575.7	10,098.1	592.7	8,315.3	519.7	8,314.8	573.8	7,354.3	545.1	7,029.7	571.7	6,221.2	610.7
Western hemlock	40.4	19.9	48.3	36.9	18.9	20.0	13.5	13.0	--	--	--	--	21.2	23.7
Western juniper	162.6	26.8	144.2	27.1	124.8	25.4	91.6	25.6	135.8	34.1	114.4	34.3	88.7	24.9
Western white pine	388.7	63.2	401.2	73.9	341.9	62.7	335.8	62.6	474.8	84.2	430.5	78.0	261.4	61.2
Woodland softwoods	84.5	16.4	94.5	21.5	85.4	22.3	86.3	20.7	46.8	13.4	44.2	15.2	46.8	18.6
Other western softwoods	974.9	139.4	877.8	137.9	737.9	120.2	714.5	131.2	655.7	116.8	382.2	91.2	354.1	91.6
Total	35,539.8	927.9	33,036.7	924.5	30,371.1	906.0	27,529.7	926.9	25,399.9	929.3	24,705.2	929.4	20,222.3	920.8
Hardwoods:														
Cottonwood and aspen	57.9	24.1	34.4	17.2	4.9	4.9	34.8	21.3	22.7	23.1	--	--	--	--
Oak	2,502.7	194.9	2,317.5	204.4	1,740.5	193.4	1,056.4	144.9	1,104.9	162.5	803.4	149.5	698.3	154.4
Red alder	39.2	19.0	28.7	19.0	--	--	--	--	--	--	--	--	--	--
Tanoak	703.0	112.5	386.8	76.1	298.9	79.8	238.0	71.5	191.4	68.5	97.1	45.3	161.5	63.9
Woodland hardwoods	12.7	6.0	7.6	7.8	--	--	9.6	6.1	--	--	--	--	--	--
Other western hardwoods	661.3	98.0	502.2	104.6	326.6	74.8	423.7	104.0	362.4	91.7	188.3	70.9	188.6	75.9
Total	3,976.9	259.7	3,277.4	242.8	2,370.9	224.1	1,762.5	198.2	1,681.3	202.6	1,088.8	171.5	1,048.5	187.0
All species groups	39,516.7	960.1	36,314.2	953.9	32,742.0	935.7	29,292.2	949.2	27,081.2	952.4	25,794.0	943.1	21,270.8	941.0

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 megagrams was estimated.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units.

Convert megagrams of carbon to tons of biomass by multiplying by 2.204586. The result will be approximate due to rounding.

^b Includes all live trees ≥ 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 85—Aboveground carbon mass^a of live trees^b on forest land, by species group and diameter class, California, 2006-2015 (Continued)

Species group	Diameter class (inches)									
	43.0-44.9		45.0-46.9		47.0-48.9		49.0 +		All classes	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand megagrams</i>										
Softwoods:										
Douglas-fir	6,133.9	526.4	5,596.7	501.4	4,711.5	479.2	29,705.3	2,414.8	209,985.4	6,415.9
Incense-cedar	1,027.5	145.9	803.9	143.8	643.9	139.0	4,021.9	545.2	41,079.2	1,926.5
Lodgepole pine	278.5	81.4	143.6	48.4	88.1	41.4	85.8	63.9	29,259.6	2,031.9
Ponderosa and Jeffrey pines	1,816.5	220.4	1,898.4	242.6	1,479.9	235.8	4,247.0	612.2	109,203.1	3,241.6
Redwood	2,273.9	370.4	1,654.9	296.3	1,131.6	228.0	25,358.5	6,585.4	79,047.0	8,032.3
Sitka spruce	63.9	35.8	36.1	31.6	--	--	376.4	310.8	1,952.2	675.7
Sugar pine	1,344.5	237.8	1,709.9	262.8	1,709.6	296.9	9,787.1	1,474.3	44,683.3	2,505.3
True fir	4,602.0	439.9	4,492.5	503.6	3,957.4	439.9	12,908.5	1,328.5	210,311.5	7,323.4
Western hemlock	--	--	54.8	39.0	--	--	184.0	205.7	1,578.5	475.0
Western juniper	41.0	16.6	69.6	26.7	53.3	22.7	333.7	87.9	7,130.1	479.1
Western white pine	336.0	79.5	198.1	62.4	321.6	87.3	1,259.4	264.2	7,732.3	711.0
Woodland softwoods	17.0	9.5	32.4	16.6	3.4	3.4	32.9	22.3	5,365.9	424.1
Other western softwoods	263.7	97.4	273.8	82.2	235.9	86.5	1,171.2	544.7	23,950.1	1,803.3
Total	18,198.4	865.9	16,964.6	877.8	14,336.1	794.4	89,471.5	7,750.2	771,278.3	12,584.4
Hardwoods:										
Cottonwood and aspen	--	--	--	--	--	--	19.0	19.5	1,655.3	367.6
Oak	328.0	105.2	319.2	102.8	198.1	88.9	752.9	213.6	147,701.1	3,698.0
Red alder	--	--	--	--	--	--	--	--	4,015.7	640.7
Tanoak	22.5	25.2	85.2	52.7	78.6	51.2	182.7	94.5	53,739.9	3,065.1
Woodland hardwoods	--	--	--	--	--	--	--	--	692.6	119.0
Other western hardwoods	158.2	63.4	130.5	64.3	103.2	58.5	341.2	120.4	36,126.5	1,599.3
Total	508.8	125.3	534.9	139.3	379.9	118.1	1,295.8	263.2	243,931.0	5,336.5
All species groups	18,707.2	876.6	17,499.6	888.7	14,716.1	804.7	90,767.3	7,753.6	1,015,209.3	13,134.3

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 megagrams was estimated.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units.

Convert megagrams of carbon to tons of biomass by multiplying by 2.204586. The result will be approximate due to rounding.

^b Includes all live trees >= 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 86—Aboveground carbon mass^a of dead trees^b on forest land, by species group and diameter class, California, 2006-2015

Species group	Diameter class (inches)																	
	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			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand megagrams</i>																		
Softwoods:																		
Douglas-fir	426.2	37.9	491.6	48.8	563.3	73.0	622.7	77.0	664.9	84.5	924.3	144.1	630.2	116.3	709.7	136.0		
Incense-cedar	194.7	20.7	211.6	23.4	178.5	26.6	224.3	34.0	184.5	34.8	155.9	36.5	196.3	42.6	172.2	48.9		
Lodgepole pine	138.1	33.6	131.3	38.1	189.0	58.7	234.0	62.5	292.7	71.0	314.9	66.0	208.7	59.4	523.4	104.9		
Ponderosa and Jeffrey pines	214.5	26.3	256.6	35.3	331.8	49.4	273.9	44.1	378.2	57.3	291.2	49.2	380.1	78.7	261.4	64.0		
Redwood	50.5	11.4	43.9	11.1	83.6	18.4	48.8	14.0	12.5	11.7	53.9	20.3	56.8	19.5	48.7	25.6		
Sitka spruce	3.4	2.5	2.4	2.4	1.0	0.9	--	--	--	--	--	--	--	--	--	--	--	--
Sugar pine	47.4	8.8	114.8	18.9	116.5	20.5	153.2	31.2	169.6	42.3	214.0	48.3	166.6	52.6	188.8	67.9		
True fir	691.5	47.6	905.1	57.0	1,195.7	86.0	1,477.1	117.8	1,630.7	132.3	1,725.2	149.3	1,691.4	183.4	2,121.5	219.2		
Western hemlock	2.4	1.4	5.4	3.7	14.8	7.1	5.5	5.5	--	--	--	--	--	--	--	--	--	--
Western juniper	8.9	2.9	20.1	5.5	12.9	4.9	12.8	5.8	9.2	5.6	35.4	13.5	10.7	7.9	21.4	12.2		
Western white pine	26.5	6.7	23.2	9.3	40.6	12.0	37.5	12.0	32.6	19.1	24.6	15.9	36.9	19.4	82.0	40.1		
Woodland softwoods	19.7	3.6	38.0	6.8	61.3	11.6	75.4	17.2	83.2	21.5	90.7	22.1	72.5	22.0	91.1	31.1		
Other western softwoods	95.0	17.0	120.0	28.7	153.6	36.4	164.0	32.6	195.2	37.3	158.2	37.3	159.9	42.8	181.9	55.9		
Total	1,918.8	85.8	2,364.0	109.5	2,942.6	151.8	3,329.3	177.3	3,653.3	199.9	3,988.3	235.9	3,610.0	254.6	4,402.3	309.2		
Hardwoods:																		
Cottonwood and aspen	17.6	8.3	10.3	5.1	20.4	8.4	12.7	8.7	13.2	7.8	19.2	13.8	8.4	8.5	--	--		
Oak	1,451.0	105.0	1,497.4	125.5	1,219.0	139.4	819.6	94.5	726.7	94.2	693.9	104.9	604.5	100.6	370.9	96.3		
Red alder	25.8	6.4	37.3	10.3	63.1	20.0	40.8	14.7	20.6	16.0	31.3	30.2	29.3	16.7	--	--		
Tanoak	375.0	55.0	419.6	67.7	468.9	91.2	389.6	81.9	463.4	108.5	329.3	96.4	266.6	76.7	208.4	80.2		
Woodland hardwoods	21.0	5.9	44.9	12.4	52.6	12.0	40.1	13.7	48.7	18.3	33.0	19.0	30.0	15.2	25.7	14.5		
Other western hardwoods	341.1	37.3	359.8	45.1	345.1	45.3	330.1	50.6	192.0	44.2	247.1	57.8	203.9	59.7	139.0	54.8		
Total	2,231.5	128.6	2,369.2	156.2	2,169.0	178.3	1,632.9	139.6	1,464.6	151.5	1,353.8	160.8	1,142.7	141.4	743.9	137.4		
All species groups	4,150.4	158.3	4,733.2	195.2	5,111.6	234.0	4,962.2	227.3	5,117.9	251.7	5,342.1	285.4	4,752.6	291.4	5,146.2	336.1		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 megagrams was estimated.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units. Convert megagrams of carbon to tons of biomass by multiplying by 2.204586. The result will be Convert megagrams of carbon to tons of biomass by multiplying by 2.204586. The result will be approximate due to rounding.

^b Includes all dead trees >= 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 86—Aboveground carbon mass^a of dead trees^b on forest land, by species group and diameter class, California, 2006-2015 (Continued)

Species group	Diameter class (inches)																	
	21.0-22.9		23.0-24.9		25.0-26.9		27.0-28.9		29.0-30.9		31.0-32.9		33.0-34.9		35.0-36.9			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand megagrams</i>																		
Softwoods:																		
Douglas-fir	569.0	124.8	673.7	117.6	747.7	78.8	788.3	98.7	747.8	94.4	844.0	118.9	948.2	118.4	850.3	116.0		
Incense-cedar	175.9	51.1	160.8	42.7	154.2	28.8	156.7	27.9	209.1	37.6	272.1	48.4	220.6	48.0	111.2	32.0		
Lodgepole pine	333.0	95.4	241.7	54.0	383.4	58.4	345.5	56.0	253.0	46.7	180.6	41.1	161.6	38.7	149.7	42.0		
Ponderosa and Jeffrey pines	397.5	89.0	440.9	85.6	438.8	62.0	402.2	53.1	450.1	62.6	546.6	72.9	369.7	63.1	328.0	65.8		
Redwood	30.5	12.1	72.9	44.2	28.6	8.3	75.8	22.3	50.4	13.7	40.3	10.2	86.3	23.4	91.3	22.2		
Sitka spruce	25.3	22.2	--	--	1.9	1.9	--	--	--	--	--	--	--	--	--	--	--	--
Sugar pine	134.9	56.6	129.4	30.5	262.9	48.4	234.4	46.2	273.3	52.8	327.7	78.9	281.9	72.4	228.4	67.3		
True fir	2,233.8	241.0	2,022.8	209.2	1,826.2	147.2	1,873.6	153.4	1,831.4	162.2	1,661.2	156.9	1,706.5	163.9	1,571.3	167.1		
Western hemlock	8.5	8.1	--	--	8.8	8.5	3.6	3.7	--	--	21.6	20.7	--	--	6.4	7.2		
Western juniper	9.0	9.1	34.0	18.9	16.1	7.3	4.4	3.3	12.5	6.5	11.0	6.5	4.4	4.1	11.8	12.2		
Western white pine	65.7	32.3	43.0	25.1	81.6	20.7	60.9	19.6	59.4	20.7	58.2	20.4	56.9	22.8	25.8	13.1		
Woodland softwoods	9.0	8.3	20.0	13.0	26.6	7.7	16.1	7.9	27.9	11.9	4.4	3.6	21.7	10.4	7.1	6.7		
Other western softwoods	192.8	57.2	299.9	69.1	143.5	32.2	149.6	32.3	141.2	32.8	124.3	31.1	103.8	31.4	68.5	29.0		
Total	4,184.8	321.7	4,139.2	279.9	4,120.3	204.7	4,111.2	213.5	4,056.2	221.5	4,092.1	238.2	3,961.7	233.5	3,449.9	230.5		
Hardwoods:																		
Cottonwood and aspen	--	--	3.4	3.8	--	--	--	--	--	--	--	--	21.5	13.8	--	--	--	--
Oak	355.2	84.6	392.6	88.6	229.2	37.4	330.8	55.3	165.0	37.1	217.9	46.6	128.5	37.5	64.8	24.5		
Red alder	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak	125.0	60.3	71.0	42.9	46.0	16.5	48.8	19.8	71.1	28.1	20.8	12.1	18.7	13.9	33.4	20.8		
Woodland hardwoods	22.4	15.0	3.8	2.8	--	--	6.7	4.9	--	--	8.0	5.8	--	--	--	--	--	--
Other western hardwoods	119.3	51.3	113.0	52.6	41.4	16.8	19.6	11.7	45.0	20.9	21.0	14.4	14.7	13.2	40.2	23.0		
Total	621.9	116.8	583.8	115.7	316.6	47.6	405.9	60.1	281.2	50.9	267.8	50.5	183.3	44.3	138.4	39.5		
All species groups	4,806.7	344.4	4,722.9	302.6	4,437.0	209.7	4,517.0	221.2	4,337.3	226.3	4,359.8	243.5	4,145.0	237.4	3,588.3	234.5		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 megagrams was estimated.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units. Convert megagrams of carbon to tons of biomass by multiplying by 2.204586. The result will be Convert megagrams of carbon to tons of biomass by multiplying by 2.204586. The result will be approximate due to rounding.

^b Includes all dead trees >= 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 86—Aboveground carbon mass^a of dead trees^b on forest land, by species group and diameter class, California, 2006-2015 (Continued)

Species group	Diameter class (inches)																All classes	
	37.0-38.9		39.0-40.9		41.0-42.9		43.0-44.9		45.0-46.9		47.0-48.9		49.0 +					
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand megagrams</i>																		
Softwoods:																		
Douglas-fir	665.4	111.0	638.0	113.9	755.6	135.2	846.3	165.8	707.7	130.9	834.9	158.9	3,746.8	513.3	19,396.7	1,333.3		
Incense-cedar	185.4	43.5	106.6	35.5	171.4	47.0	182.6	55.6	102.2	43.7	138.2	56.5	500.6	131.4	4,365.6	324.0		
Lodgepole pine	122.6	43.7	79.8	32.1	80.8	32.6	34.7	21.3	33.8	22.5	14.9	15.4	49.2	35.0	4,496.4	489.5		
Ponderosa and Jeffrey pines	371.6	78.9	239.9	62.4	277.9	66.1	367.1	91.0	204.1	72.7	212.1	77.3	780.9	176.5	8,215.3	566.8		
Redwood	88.5	21.4	86.0	23.5	125.0	34.5	114.5	30.6	105.9	28.1	106.2	27.6	7,082.5	1,270.7	8,583.3	1,317.6		
Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--	34.0	22.7		
Sugar pine	312.3	93.4	494.0	124.8	334.7	109.0	490.1	140.5	191.3	79.0	248.7	107.1	2,888.5	586.2	8,003.4	874.4		
True fir	930.9	124.5	1,030.3	140.4	1,200.9	169.0	1,099.3	179.9	1,081.1	182.8	839.7	155.1	4,602.5	608.1	36,949.7	1,817.3		
Western hemlock	36.2	27.6	--	--	--	--	10.1	10.6	--	--	21.2	23.8	--	--	144.5	78.0		
Western juniper	5.0	5.0	--	--	9.2	9.5	--	--	4.7	4.7	--	--	8.4	8.6	262.0	52.9		
Western white pine	101.4	34.1	35.5	19.3	38.8	24.3	31.1	24.8	22.5	18.2	41.2	27.5	83.3	43.0	1,109.3	156.5		
Woodland softwoods	2.7	2.5	--	--	6.6	6.7	--	--	--	--	--	--	--	--	674.1	93.1		
Other western softwoods	79.3	32.9	--	--	43.6	24.0	41.5	26.8	12.8	14.5	--	--	360.6	262.1	2,989.3	392.5		
Total	2,901.3	230.7	2,710.1	238.0	3,044.6	258.6	3,217.3	304.8	2,466.1	255.3	2,457.1	266.3	20,103.3	1,686.0	95,223.7	2,991.6		
Hardwoods:																		
Cottonwood and aspen	--	--	--	--	--	--	--	--	--	--	--	--	--	--	126.5	39.5		
Oak	103.2	39.7	33.0	20.8	64.1	35.6	18.3	18.5	20.5	20.7	--	--	51.2	39.1	9,557.2	535.1		
Red alder	23.7	18.7	--	--	--	--	--	--	--	--	--	--	--	--	272.0	59.5		
Tanoak	--	--	27.0	20.1	19.0	16.0	27.5	25.8	--	--	--	--	--	--	3,429.2	477.0		
Woodland hardwoods	7.5	7.7	--	--	--	--	--	--	--	--	--	--	--	--	344.3	81.0		
Other western hardwoods	--	--	--	--	--	--	33.4	23.6	19.4	16.4	--	--	44.4	33.3	2,669.5	240.8		
Total	134.4	44.6	60.0	28.9	83.1	39.0	79.2	39.5	39.9	26.4	--	--	95.6	51.4	16,398.7	792.8		
All species groups	3,035.7	234.6	2,770.1	243.5	3,127.7	261.4	3,296.5	307.3	2,506.0	258.1	2,457.1	266.3	20,198.9	1,686.6	111,622.3	3,107.7		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 megagrams was estimated.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units.

Convert megagrams of carbon to tons of biomass by multiplying by 2.204586. The result will be approximate due to rounding.

^b Includes all dead trees >= 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 87—Average aboveground carbon mass^a per hectare of live trees^b on forest land, by forest type group and ownership group, California, 2006-2015

Forest type group	Ownership Group													
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All private		All owners	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Kilograms per hectare</i>														
Softwoods:														
California mixed conifer	124,895.56	2,496.17	138,479.42	9,492.98	152,057.10	22,228.91	74,004.51	3,099.98	88,196.89	4,913.48	77,511.30	2,630.90	113,232.05	1,945.93
Douglas-fir	178,047.84	15,192.09	178,220.08	36,398.46	177,286.17	24,895.52	114,839.49	7,233.63	132,917.42	10,842.36	123,718.76	6,526.48	145,056.81	6,633.79
Fir / spruce / mtn. hemlock	141,006.44	5,785.95	158,348.75	14,000.38	122,212.55	14,323.36	87,101.96	9,312.94	83,286.33	16,132.50	86,196.64	8,043.44	135,793.35	4,863.98
Lodgepole pine	69,018.38	4,035.03	80,920.49	9,348.59	39,338.81	19,485.37	50,441.14	9,508.68	79,517.82	13,956.07	65,993.73	9,687.42	71,101.51	3,591.92
Pinyon / juniper woodlands	11,655.95	1,078.61	8,626.64	837.69	10,003.85	3,246.82	5,606.68	1,399.13	5,465.17	1,519.98	5,500.50	1,192.90	9,773.97	641.48
Ponderosa pine	49,990.73	2,583.81	40,216.13	6,994.48	36,845.30	17,221.74	38,600.89	3,610.11	60,395.23	4,651.03	48,468.69	2,991.10	49,019.58	1,921.23
Redwood	440,903.04	118,904.11	699,612.18	111,450.99	502,871.92	115,077.99	157,677.41	12,279.76	242,832.60	19,865.03	188,797.57	11,352.42	256,055.09	22,162.36
Western juniper	17,783.44	1,577.56	11,091.28	1,249.63	24,170.63	20,921.21	9,352.69	1,429.24	11,113.55	1,233.51	10,779.17	1,040.11	14,497.99	941.87
Western white pine	50,646.69	6,747.50	43,033.91	13,112.65	--	--	--	--	--	--	--	--	50,072.30	6,338.01
Other western softwoods	29,273.20	3,287.07	30,891.40	6,677.92	29,718.94	23,784.70	119,281.51	31,570.55	149,551.74	39,831.26	134,033.24	25,303.89	43,311.66	5,464.79
Total	97,590.53	1,693.59	77,922.98	5,665.28	197,926.53	36,550.49	82,487.76	2,823.77	91,027.80	4,782.27	85,821.44	2,469.85	94,163.18	1,559.59
Hardwoods:														
Alder / maple	62,051.23	20,847.49	129,953.39	18,384.80	163,253.15	6,927.11	103,365.96	14,928.56	76,582.73	12,407.66	92,734.66	10,549.36	96,586.74	9,105.92
Aspen / birch	27,458.10	8,840.62	1,604.21	287.46	48,864.15	48,864.15	109,370.38	109,370.38	26,158.42	26,158.42	49,473.41	21,152.70	28,703.23	7,684.74
Elm / ash / cottonwood	55,483.54	55,483.54	--	--	51,202.22	15,102.54	29,154.34	29,154.34	58,445.01	24,545.06	55,590.13	22,951.66	53,364.72	13,508.14
Tanoak / laurel	126,034.53	10,589.01	121,351.60	23,835.41	151,159.54	21,578.43	113,958.03	7,100.03	133,700.23	6,639.41	125,027.28	4,915.11	127,328.14	4,511.65
Western oak	56,754.17	2,588.87	39,520.03	3,519.78	46,457.41	3,736.88	51,895.05	3,113.10	39,439.04	1,168.77	41,761.44	1,113.97	46,051.42	1,045.57
Woodland hardwoods	12,573.23	2,170.58	8,897.44	1,845.71	24,488.38	10,967.35	13,307.04	13,307.04	11,237.86	5,772.07	11,516.14	5,011.92	12,429.97	1,675.08
Other hardwoods	44,525.10	12,883.42	37,358.41	17,125.38	130,921.66	34,191.55	70,949.00	18,132.13	57,738.15	9,952.00	61,177.81	8,786.18	58,290.82	7,802.32
Total	62,455.77	2,687.98	47,659.57	4,260.14	76,387.58	7,064.13	74,575.73	3,498.01	52,196.18	1,654.00	57,569.73	1,496.26	59,326.93	1,272.09
Nonstocked	2,580.63	618.18	578.96	274.76	--	--	5,250.05	1,657.07	1,720.96	833.81	4,464.32	1,310.29	2,846.24	525.78
All forest types	85,941.45	1,364.21	67,780.44	4,117.23	119,482.73	13,746.58	77,232.20	2,133.58	62,588.51	1,779.52	68,521.68	1,295.87	78,538.41	1,022.06

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 kilograms per hectare was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units.

Convert kilograms per hectare of carbon to tons per acre of biomass by multiplying by .00089. The result will be approximate due to rounding.

^b Includes all live trees >= 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 88—Average aboveground carbon mass^a per hectare of dead trees^b on forest land, by forest type group and ownership group, California, 2006-2015

Forest type group	Ownership Group													
	USDA Forest Service		Other federal		State and local government		Corporate		Noncorporate		All private		All owners	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Kilograms per hectare</i>														
Softwoods:														
California mixed conifer	15,188.12	662.78	22,401.47	2,832.80	13,396.25	6,606.55	4,693.25	453.86	4,350.85	936.15	4,608.64	412.60	12,762.57	503.58
Douglas-fir	19,880.07	2,964.67	10,362.59	4,315.26	15,670.84	7,832.52	8,670.85	1,696.75	7,966.28	1,559.60	8,324.79	1,154.82	12,101.62	1,240.37
Fir / spruce / mtn. hemlock	22,034.53	1,639.82	37,494.29	7,264.28	15,641.55	3,954.59	6,605.10	2,258.64	9,259.08	3,157.79	7,234.80	1,887.78	21,676.66	1,513.01
Lodgepole pine	8,668.29	950.64	10,428.89	2,004.42	7,630.55	3,253.59	15,823.70	7,318.81	8,486.72	1,984.55	11,899.28	3,716.44	9,260.18	840.74
Pinyon / juniper woodlands	1,235.56	196.49	618.07	109.08	685.93	301.60	443.77	254.32	555.05	213.94	527.27	173.12	906.44	106.55
Ponderosa pine	2,759.20	378.27	3,182.66	2,080.29	594.84	666.19	1,158.55	237.99	1,515.87	358.94	1,320.33	208.23	2,263.98	256.54
Redwood	555.83	555.83	76,472.61	37,692.24	22,293.46	5,559.39	18,358.08	4,238.94	19,205.35	4,944.58	18,667.72	3,236.02	20,953.28	3,264.94
Western juniper	1,418.97	318.69	518.26	180.83	2,769.35	2,769.35	522.64	286.84	439.07	135.97	454.94	123.03	976.74	177.05
Western white pine	11,026.43	1,976.79	10,468.38	2,786.27	--	--	--	--	--	--	--	--	10,984.32	1,838.79
Other western softwoods	4,387.07	940.17	4,084.15	1,481.63	2,640.60	1,670.37	40,791.92	26,674.30	13,708.17	5,970.94	27,593.07	14,604.33	7,269.37	2,173.94
Total	12,020.27	418.61	11,781.08	1,323.21	12,168.77	2,418.63	6,807.79	748.75	5,601.58	728.27	6,336.93	537.28	10,445.07	330.44
Hardwoods:														
Alder / maple	12,543.71	4,182.16	23,654.21	15,086.21	3,216.90	679.89	22,607.59	8,072.61	5,417.20	2,107.44	15,784.07	5,208.68	16,266.39	4,368.04
Aspen / birch	2,167.21	837.14	--	--	7,816.43	7,816.43	--	--	--	--	--	--	1,646.64	652.69
Elm / ash / cottonwood	1,227.94	1,227.94	--	--	418.05	418.05	--	--	4,204.26	2,408.18	3,794.48	2,271.80	2,402.85	1,513.15
Tanoak / laurel	15,153.42	3,222.62	21,514.13	8,480.12	7,794.40	2,076.02	9,855.80	2,094.42	5,389.08	746.43	7,351.36	1,023.28	9,743.21	1,090.15
Western oak	7,809.44	994.10	3,715.69	699.10	2,618.26	651.02	2,669.78	324.48	1,625.05	126.52	1,819.83	119.73	3,678.56	300.90
Woodland hardwoods	4,903.40	1,467.03	2,294.45	703.56	2,560.99	508.45	531.27	531.27	1,310.64	850.43	1,205.82	733.19	3,523.58	827.52
Other hardwoods	8,551.09	2,385.44	3,391.47	3,029.20	3,347.43	1,824.00	3,660.69	1,169.46	3,197.55	1,007.61	3,318.13	805.66	5,429.15	1,097.18
Total	8,611.95	862.84	5,946.22	1,254.26	3,830.12	677.28	5,920.74	842.57	2,194.10	152.05	3,088.91	235.95	4,912.51	302.62
Nonstocked	26,152.69	4,242.00	1,830.66	787.85	47,312.96	47,312.96	4,305.25	1,587.27	1,444.75	561.55	3,668.37	1,259.34	19,103.71	3,018.17
All forest types	11,843.86	400.19	9,940.69	985.43	7,157.79	1,031.03	6,427.69	551.77	3,130.41	230.85	4,466.37	262.36	8,635.30	241.12

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 kilograms per hectare was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units.

Convert kilograms per hectare of carbon to tons per acre of biomass by multiplying by .00089. The result will be approximate due to rounding.

^b Includes all dead trees >= 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 89—Average aboveground carbon mass^a per hectare of live trees^b on forest land, by forest type group and stand size class, California, 2006–2015

Forest type group	Stand size class							
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		All size classes	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Kilograms per hectare</i>								
Softwoods:								
California mixed conifer	119,465.81	1,983.82	30,582.48	4,462.79	10,090.70	1,216.51	113,232.05	1,945.93
Douglas-fir	158,603.11	6,855.46	49,747.57	8,360.29	25,458.94	6,918.51	145,056.81	6,633.79
Fir / spruce / mtn. hemlock	143,414.01	4,930.85	49,719.44	12,327.06	13,795.47	2,911.65	135,793.35	4,863.98
Lodgepole pine	75,222.65	3,774.14	42,611.41	14,032.78	19,999.07	5,887.18	71,101.51	3,591.92
Pinyon / juniper woodlands	10,764.72	689.79	3,602.67	1,937.89	1,286.88	529.86	9,773.97	641.48
Ponderosa pine	55,283.66	2,059.60	16,196.13	2,173.66	5,233.38	1,193.57	49,019.58	1,921.23
Redwood	276,930.91	23,357.57	24,123.94	5,812.58	13,697.66	2,788.58	256,055.09	22,162.36
Western juniper	16,403.33	1,074.62	6,171.80	1,160.69	4,039.38	940.60	14,497.99	941.87
Western white pine	61,419.29	6,937.54	--	--	16,728.38	4,390.70	50,072.30	6,338.01
Other western softwoods	63,716.00	7,887.65	15,001.62	3,639.65	9,384.35	2,154.06	43,311.66	5,464.79
Total	103,129.71	1,692.06	20,466.03	1,907.77	9,960.79	858.76	94,163.18	1,559.59
Hardwoods:								
Alder / maple	121,853.58	8,470.01	59,465.96	16,843.68	24,455.18	15,360.38	96,586.74	9,105.92
Aspen / birch	62,656.04	13,798.88	44,253.10	16,559.13	9,810.23	3,317.81	28,703.23	7,684.74
Elm / ash / cottonwood	54,486.48	13,666.71	--	--	--	--	53,364.72	13,508.14
Tanoak / laurel	153,985.79	5,078.08	86,161.55	5,622.22	21,774.78	3,636.41	127,328.14	4,511.65
Western oak	61,097.94	1,639.76	37,809.26	1,344.74	13,070.62	991.98	46,051.42	1,045.57
Woodland hardwoods	13,209.44	1,701.97	13,060.16	8,071.98	409.99	191.64	12,429.97	1,675.08
Other hardwoods	121,974.76	13,737.45	36,500.40	7,399.93	6,387.16	1,572.49	58,290.82	7,802.32
Total	81,640.32	1,971.69	42,330.51	1,417.35	13,277.29	907.37	59,326.93	1,272.09
Nonstocked	--	--	--	--	--	--	2,846.24	525.78
All forest types	97,260.67	1,307.17	38,424.88	1,252.48	11,986.07	649.72	78,538.41	1,022.06

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 kilograms per hectare was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units. Convert kilograms per hectare of carbon to tons per acre of biomass by multiplying by .00089. The result will be approximate due to rounding.

^b Includes all live trees \geq 1 inches in diameter at breast height, consisting of growing stock, rough cull, and rotten cull tree classes.

Table 90—Average aboveground carbon mass^a per hectare of dead trees^b on forest land, by forest type group and stand size class, California, 2006-2015

Forest type group	Stand size class							
	Large-diameter stands		Medium-diameter stands		Small-diameter stands		All size classes	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Kilograms per hectare</i>								
Softwoods:								
California mixed conifer	13,286.70	527.44	3,649.03	1,074.76	4,932.57	1,747.34	12,762.57	503.58
Douglas-fir	12,642.16	1,327.19	1,797.11	847.93	15,756.95	8,234.77	12,101.62	1,240.37
Fir / spruce / mountain hemlock	20,962.36	1,338.02	17,833.85	9,348.76	35,921.14	16,108.44	21,676.66	1,513.01
Lodgepole pine	9,990.85	900.39	1,116.58	525.19	1,902.05	877.81	9,260.18	840.74
Pinyon / juniper woodlands	916.54	107.09	236.70	85.08	1,736.20	953.97	906.44	106.55
Ponderosa pine	2,486.36	292.53	657.97	265.70	1,153.60	538.98	2,263.98	256.54
Redwood	22,310.63	3,508.69	8,851.01	2,602.17	3,120.93	2,336.53	20,953.28	3,264.94
Western juniper	1,120.37	210.07	541.37	238.24	12.48	12.48	976.74	177.05
Western white pine	12,767.89	2,330.00	--	--	5,850.69	1,864.62	10,984.32	1,838.79
Other western softwoods	10,886.54	3,455.89	3,128.18	1,781.34	480.60	343.24	7,269.37	2,173.94
Total	11,095.58	345.77	2,312.31	512.31	6,295.42	1,799.75	10,445.07	330.44
Hardwoods:								
Alder / maple	16,198.95	5,035.08	5,161.49	4,007.28	34,628.43	19,215.18	16,266.39	4,368.04
Aspen / birch	6,092.89	1,153.15	1,454.58	916.85	80.70	51.03	1,646.64	652.69
Elm / ash / cottonwood	2,453.36	1,539.92	--	--	--	--	2,402.85	1,513.15
Tanoak / laurel	9,677.03	1,037.33	5,311.11	1,978.01	17,664.09	6,496.76	9,743.21	1,090.15
Western oak	3,999.55	273.55	2,064.17	173.49	6,440.88	1,791.89	3,678.56	300.90
Woodland hardwoods	3,048.28	705.68	6,837.89	5,026.17	4,669.54	3,632.30	3,523.58	827.52
Other hardwoods	7,518.08	1,437.32	2,137.02	766.74	5,432.63	2,426.67	5,429.15	1,097.18
Total	5,508.51	322.19	2,435.20	247.67	7,853.63	1,570.14	4,912.51	302.62
Nonstocked	--	--	--	--	--	--	19,103.71	3,018.17
All forest types	9,569.68	265.06	2,413.25	223.58	7,246.97	1,183.17	8,635.30	241.12

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.005 kilograms per hectare was estimated;

the average was calculated using a ratio of means formula across plots within forest type groups.

^a Total aboveground carbon mass of the tree from ground to tip, includes stem wood, bark, and branches; calculated by applying a factor of 0.5 to aboveground biomass estimated from regional biomass equations, and converting to metric units. Convert kilograms per hectare of carbon to tons per acre of biomass by multiplying by .00089. The result will be approximate due to rounding.

^b Includes all dead trees >= 5 inches in diameter at breast height; smaller dead trees were not measured in this inventory.

Table 91—Biomass of down wood^a on forest land, by forest type group, ownership group, and land status, California, 2006–2015

Forest type group	Ownership Group and Land Status																				
	U.S. Forest Service				Other Federal				State and local government				Private								
	Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		All forest land				
Thousand tons																					
Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Softwoods:																					
California mixed conifer	47,634.9	2,171.7	12,201.0	1,146.1	500.6	166.0	6,705.9	1,020.9	300.6	140.8	656.0	262.3	21,798.4	1,338.2	37.9	30.9	89,835.2	2,941.4			
Douglas-fir	1,937.9	488.9	1,348.1	453.1	120.8	80.3	562.5	342.9	163.8	100.0	1,110.5	605.6	10,382.5	1,332.5	--	--	15,626.0	1,646.8			
Fir / spruce / mtn. hemlock	13,141.1	1,150.0	5,774.6	1,135.9	62.6	65.1	2,612.6	615.9	68.0	54.9	156.4	140.1	2,358.8	435.6	--	--	24,174.1	1,788.3			
Lodgepole pine	2,574.2	571.1	3,769.8	728.4	--	--	2,240.0	600.7	49.5	43.0	32.4	36.1	611.1	213.0	--	--	9,277.1	1,123.2			
Pinyon / juniper woodlands	27.0	26.7	2,514.2	392.3	--	--	1,255.7	270.0	--	--	103.6	53.7	--	--	217.7	84.3	4,118.3	486.9			
Ponderosa pine	5,916.2	656.6	1,459.5	358.6	299.8	217.2	217.9	176.4	2.4	2.4	95.1	63.9	4,435.8	538.1	7.9	4.7	12,434.6	962.2			
Redwood	86.8	79.7	390.5	246.6	--	--	1,365.6	676.3	652.7	418.0	1,414.1	552.0	12,320.8	1,812.2	--	--	16,230.5	2,065.1			
Western juniper	419.2	113.0	1,802.6	327.7	96.2	65.1	449.9	110.5	--	--	104.1	163.4	119.8	65.1	397.8	98.4	3,389.5	420.0			
Western white pine	235.4	117.2	470.1	149.9	--	--	110.0	89.3	--	--	--	--	--	--	--	--	815.4	210.2			
Other western softwoods	256.1	140.2	1,630.8	350.6	8.9	7.3	978.3	355.7	--	--	42.4	27.0	944.1	377.5	44.6	44.4	3,905.2	643.7			
Total	72,228.8	2,404.0	31,361.3	1,793.0	1,088.8	299.5	16,498.3	1,497.8	1,236.9	450.8	3,714.7	815.5	52,971.2	2,489.3	706.0	140.4	179,805.9	4,159.3			
Hardwoods:																					
Alder / maple	333.6	170.7	312.0	228.9	93.4	60.7	588.1	372.2	--	--	96.2	71.5	1,492.9	433.7	220.6	155.2	3,136.7	663.8			
Aspen / birch	51.9	36.9	390.9	208.0	--	--	23.3	18.4	--	--	6.2	6.9	177.4	127.6	--	--	649.7	247.6			
Elm / ash / cottonwood	--	--	15.4	15.9	--	--	--	--	--	--	17.2	15.4	--	--	98.2	70.7	130.7	74.1			
Tanoak / laurel	2,839.2	649.8	2,217.7	562.7	170.9	80.0	368.7	208.2	151.6	147.6	1,484.4	377.3	14,110.6	1,411.7	1,010.2	289.7	22,353.4	1,729.9			
Western oak	6,838.0	779.3	7,456.8	759.7	496.0	161.4	2,268.2	435.2	95.0	55.9	1,539.7	320.4	7,896.7	934.7	11,701.6	735.1	38,292.0	1,692.9			
Woodland hardwoods	66.5	28.9	254.3	83.8	--	--	244.5	102.8	--	--	71.1	40.2	9.6	7.2	3.2	1.6	649.2	141.7			
Other hardwoods	1,204.6	362.0	345.5	143.7	51.8	33.2	18.8	13.2	160.1	145.6	168.4	87.8	1,608.1	424.7	237.5	87.5	3,794.7	607.1			
Total	11,333.7	1,070.8	10,992.7	996.2	812.0	193.2	3,511.5	616.2	406.7	213.5	3,383.1	517.5	25,295.3	1,761.1	13,271.3	809.1	69,006.4	2,520.0			
Nonstocked																					
2,388.1	445.8	1,741.9	450.2	19.3	19.2	470.7	232.2	--	--	33.0	29.5	1,271.0	272.3	27.2	16.0	5,951.2	728.3				
All forest types																					
85,950.6	2,459.1	44,095.9	1,961.2	1,920.1	358.7	20,480.5	1,570.6	1,643.6	563.5	7,130.7	906.7	79,537.5	2,750.0	14,004.5	818.9	254,763.5	4,382.7				

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 bone-dry tons was estimated.

^a Includes down wood with diameters >= 0.1 inch.

Table 92—Carbon mass of down wood^a on forest land, by forest type group, ownership group, and land status, California, 2006–2015

Forest type group	Ownership Group and Land Status																	
	U.S. Forest Service				Other Federal				State and local government				Private					
	Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		All forest land	
Thousand megagrams																		
Softwoods:	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
California mixed conifer	21,607.2	985.1	5,534.4	519.9	227.1	75.3	3,041.8	463.1	136.3	63.9	297.6	119.0	9,887.8	607.0	17.2	14.0	40,749.3	1,334.2
Douglas-fir	879.0	221.7	611.5	205.5	54.8	36.4	255.2	155.5	74.3	45.4	503.7	274.7	4,709.5	604.4	--	--	7,087.9	747.0
Fir / spruce / mtn. hemlock	5,960.8	521.6	2,619.4	515.2	28.4	29.5	1,185.1	279.4	30.9	24.9	70.9	63.5	1,069.9	197.6	--	--	10,965.4	811.2
Lodgepole pine	1,167.7	259.1	1,710.0	330.4	--	--	1,016.1	272.5	22.4	19.5	14.7	16.4	277.2	96.6	--	--	4,208.1	509.5
Pinyon / juniper woodlands	12.3	12.1	1,140.4	177.9	--	--	569.6	122.5	--	--	47.0	24.3	--	--	98.8	38.2	1,868.1	220.8
Ponderosa pine	2,683.6	297.8	662.0	162.7	136.0	98.5	98.8	80.0	1.1	1.1	43.1	29.0	2,012.1	244.1	3.6	2.2	5,640.3	436.4
Redwood	39.4	36.2	177.1	111.8	--	--	619.4	306.8	296.1	189.6	641.5	250.4	5,588.7	822.0	--	--	7,362.2	936.7
Western juniper	190.1	51.2	817.6	148.6	43.6	29.5	204.1	50.1	--	--	47.2	74.1	54.3	29.5	180.5	44.6	1,537.5	190.5
Western white pine	106.8	53.2	213.2	68.0	--	--	49.9	40.5	--	--	--	--	--	--	--	--	369.9	95.3
Other western softwoods	116.2	63.6	739.7	159.0	4.0	3.3	443.8	161.3	--	--	19.2	12.3	428.3	171.2	20.2	20.2	1,771.4	292.0
Total	32,763.0	1,090.5	14,225.5	813.3	493.9	135.8	7,483.6	679.4	561.1	204.5	1,685.0	369.9	24,027.8	1,129.2	320.2	63.7	81,560.0	1,886.7
Hardwoods:																		
Alder / maple	151.3	77.4	141.5	103.8	42.4	27.5	266.8	168.8	--	--	43.6	32.4	677.2	196.7	100.1	70.4	1,422.8	301.1
Aspen / birch	23.5	16.7	177.3	94.4	--	--	10.6	8.3	--	--	2.8	3.1	80.5	57.9	--	--	294.7	112.3
Elm / ash / cottonwood	--	--	7.0	7.2	--	--	--	--	--	--	7.8	7.0	--	--	44.5	32.1	59.3	33.6
Tanoak / laurel	1,287.9	294.8	1,006.0	255.3	77.5	36.3	167.2	94.5	68.8	66.9	673.3	171.1	6,400.6	640.4	458.2	131.4	10,139.5	784.7
Western oak	3,101.7	353.5	3,382.4	344.6	225.0	73.2	1,028.8	197.4	43.1	25.4	698.4	145.3	3,582.0	424.0	5,307.8	333.5	17,369.2	767.9
Woodland hardwoods	30.2	13.1	115.4	38.0	--	--	110.9	46.6	--	--	32.3	18.2	4.3	3.3	1.5	0.7	294.5	64.3
Other hardwoods	546.4	164.2	156.7	65.2	23.5	15.1	8.5	6.0	72.6	66.1	76.4	39.8	729.4	192.7	107.7	39.7	1,721.3	275.4
Total	5,141.0	485.7	4,986.3	451.9	368.3	87.7	1,592.8	279.5	184.5	96.8	1,534.6	234.8	11,473.9	798.8	6,019.9	367.0	31,301.3	1,143.1
Nonstocked	1,083.2	202.2	790.1	204.2	8.8	8.7	213.5	105.3	--	--	15.0	13.4	576.5	123.5	12.3	7.3	2,699.4	330.4
All forest types	38,987.2	1,115.5	20,001.9	889.6	871.0	162.7	9,290.0	712.4	745.5	255.6	3,234.5	411.3	36,078.2	1,247.4	6,352.4	371.5	115,560.7	1,988.0

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 megagrams was estimated.

^a Includes down wood with diameters ≥ 0.1 inch.

Table 93—Biomass of down wood^a on forest land, by county and land status, California, 2006–2015

County	Land Status													
	Unreserved forests						Reserved forests							
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest land	
Thousand tons														
Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total
Alameda	5.4	5.0	453.1	212.2	458.4	212.3	51.3	45.6	43.5	19.3	94.7	47.7	553.2	217.4
Alpine	911.9	315.1	168.2	90.1	1,080.1	327.6	1,612.8	470.7	144.6	68.6	1,757.5	477.3	2,837.6	578.9
Amador	1,334.2	446.8	189.3	70.9	1,523.5	452.3	182.1	133.7	1.2	1.2	183.2	133.7	1,706.8	471.7
Butte	3,714.2	560.6	425.7	134.8	4,139.8	575.2	--	--	123.8	95.8	123.8	95.8	4,263.7	583.1
Calaveras	1,835.5	406.9	720.0	178.4	2,555.5	443.7	74.6	71.4	--	--	74.6	71.4	2,630.1	449.5
Colusa	538.6	229.0	320.7	105.0	859.4	251.3	--	--	--	--	--	--	859.4	251.3
Contra Costa	--	--	86.7	55.0	86.7	55.0	--	--	56.8	34.5	56.8	34.5	143.5	62.6
Del Norte	2,494.6	528.4	37.1	26.0	2,531.7	528.2	3,673.8	822.1	111.4	38.9	3,785.2	823.0	6,316.9	976.8
El Dorado	7,779.0	1,033.5	669.5	258.5	8,448.5	1,064.8	801.2	423.2	70.4	45.8	871.6	425.7	9,320.2	1,146.7
Fresno	2,234.2	458.0	998.3	311.5	3,232.4	553.1	4,493.2	926.5	730.6	209.8	5,223.8	945.8	8,456.3	1,094.3
Glenn	788.3	248.5	332.3	139.9	1,120.6	285.7	22.9	23.9	14.7	15.0	37.6	28.2	1,158.2	287.1
Humboldt	24,812.1	2,311.1	531.4	268.1	25,343.5	2,326.5	5,132.9	1,180.0	--	--	5,132.9	1,180.0	30,476.3	2,604.4
Imperial	--	--	27.7	16.2	27.7	16.2	--	--	2.4	3.3	2.4	3.3	30.1	16.6
Inyo	74.8	50.4	598.7	149.8	673.5	158.0	149.3	119.0	770.4	186.9	919.7	221.6	1,593.2	271.6
Kern	1,397.5	392.1	1,582.9	320.8	2,980.3	506.4	12.4	13.9	307.8	194.9	320.2	195.4	3,300.6	542.8
Lake	1,618.8	380.9	412.5	126.8	2,031.3	400.8	107.3	69.8	97.4	53.8	204.7	88.0	2,236.0	410.3
Lassen	7,153.6	843.2	868.9	178.5	8,022.5	861.9	552.3	280.4	--	--	552.3	280.4	8,574.8	906.0
Los Angeles	87.9	54.9	293.7	118.0	381.6	130.1	111.2	61.6	142.5	86.5	253.7	105.9	635.3	167.8
Madera	2,346.1	558.6	387.6	129.4	2,733.7	574.0	2,264.2	885.6	233.5	127.5	2,497.8	894.3	5,231.5	1,062.7
Marin	651.5	512.2	107.8	68.1	759.3	516.7	111.9	66.3	64.1	27.7	175.9	71.9	935.2	521.7
Mariposa	1,643.2	483.7	716.4	167.9	2,359.5	511.2	3,272.2	792.5	402.3	215.3	3,674.5	817.2	6,034.1	963.6
Mendocino	13,366.0	1,327.3	1,571.0	337.2	14,937.0	1,366.7	288.6	139.5	421.9	221.9	710.6	261.5	15,647.5	1,390.8
Merced	--	--	16.5	15.3	16.5	15.3	--	--	10.9	12.1	10.9	12.1	27.5	19.5
Modoc	4,531.3	559.9	952.0	209.9	5,483.3	597.7	336.8	181.6	33.9	37.0	370.7	185.2	5,854.0	625.8
Mono	1,117.5	328.4	1,680.2	299.1	2,797.7	439.6	199.9	137.5	812.3	223.3	1,012.3	262.2	3,810.0	508.5
Monterey	299.9	229.3	786.6	199.9	1,086.4	304.2	412.0	247.2	523.6	212.2	935.6	378.3	2,022.0	485.4
Napa	427.6	177.4	255.6	76.8	683.2	193.3	--	--	161.7	117.2	161.7	117.2	844.9	226.0
Nevada	3,067.0	700.2	371.8	149.1	3,438.8	715.9	54.0	60.1	50.6	49.8	104.6	78.1	3,543.4	721.0
Orange	--	--	--	--	--	--	--	--	13.4	18.3	13.4	18.3	13.4	18.3
Placer	4,457.2	705.8	462.8	138.8	4,920.0	722.7	408.0	228.1	5.8	3.8	413.9	228.2	5,333.8	757.9
Plumas	12,435.8	1,075.5	205.1	120.4	12,640.9	1,082.7	238.2	116.7	--	--	238.2	116.7	12,879.1	1,089.0
Riverside	5.7	5.6	150.5	76.9	156.2	77.1	214.2	164.8	65.3	42.9	279.5	170.3	435.8	184.9
Sacramento	--	--	0.0	0.0	0.0	0.0	--	--	--	--	--	--	0.0	0.0
San Benito	--	--	228.9	68.3	228.9	68.3	--	--	--	--	--	--	228.9	68.3
San Bernardino	960.8	315.4	871.5	236.0	1,832.3	465.7	309.1	155.9	260.7	137.3	569.8	207.7	2,402.1	509.8
San Diego	24.1	20.1	239.2	104.4	263.3	106.1	25.8	28.8	122.5	96.0	148.3	100.2	411.6	145.8
San Joaquin	--	--	100.3	74.0	100.3	74.0	--	--	--	--	--	--	100.3	74.0
San Luis Obispo	--	--	701.3	179.3	701.3	179.3	--	--	280.7	205.0	280.7	205.0	982.0	272.6
San Mateo	1,262.8	524.9	2.9	2.8	1,265.7	524.9	83.8	53.3	326.3	282.5	410.2	287.4	1,675.8	599.2
Santa Barbara	138.0	106.8	375.1	116.9	513.1	158.4	81.4	55.8	172.0	127.5	253.4	139.0	766.5	210.8
Santa Clara	19.1	14.7	820.3	197.0	839.4	197.5	60.0	44.1	223.1	71.4	283.2	83.9	1,122.6	214.5
Santa Cruz	1,204.9	346.5	77.7	38.6	1,282.6	348.6	600.2	286.1	2.3	3.6	602.5	286.2	1,885.1	450.4
Shasta	9,646.6	912.7	1,356.1	308.5	11,002.7	962.7	1,759.1	512.6	307.9	112.3	2,067.0	525.0	13,069.7	1,093.8
Sierra	4,835.1	651.0	27.8	20.0	4,862.9	651.3	21.6	20.8	--	--	21.6	20.8	4,884.6	651.4
Siskiyou	21,430.2	1,556.1	789.2	135.8	22,219.5	1,560.2	3,839.4	657.5	292.4	137.2	4,131.8	669.6	26,351.3	1,694.1
Solano	--	--	58.2	31.6	58.2	31.6	--	--	10.0	9.1	10.0	9.1	68.2	38.0
Sonoma	2,902.3	531.1	322.2	95.4	3,224.6	539.4	442.8	229.0	31.5	21.0	474.4	230.0	3,698.9	585.9
Stanislaus	--	--	145.7	76.5	145.7	76.5	--	--	60.6	44.7	60.6	44.7	206.3	88.6
Sutter	--	--	9.9	9.7	9.9	9.7	--	--	--	--	--	--	9.9	9.7
Tehama	5,699.8	909.4	908.2	247.1	6,608.0	942.1	434.7	178.8	346.2	226.2	780.9	287.8	7,388.9	985.1
Trinity	11,773.9	1,108.0	1,046.9	389.7	12,820.8	1,173.5	6,143.6	872.1	237.4	137.7	6,381.0	882.8	19,201.8	1,467.0
Tulare	1,837.6	505.4	373.3	102.1	2,210.9	515.6	5,894.5	846.0	2,123.1	480.0	8,017.5	966.1	10,228.4	1,093.6
Tuolumne	4,626.1	680.4	704.8	195.0	5,330.9	706.9	4,227.0	762.6	382.1	169.1	4,609.0	780.5	9,939.9	1,051.4
Ventura	2.4	2.1	323.2	91.9	325.7	91.9	24.8	11.7	194.6	93.3	219.4	94.1	545.1	131.5
Yolo	--	--	81.5	31.6	81.5	31.6	--	--	--	--	--	--	81.5	31.6
Yuba	1,558.8	581.3	251.2	83.2	1,810.0	587.1	--	--	0.0	0.0	0.0	0.0	1,810.0	587.1

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — or not present= less than 50 bone-dry tons was estimated.

^aDown wood includes diameters >= .1 inches

Table 94—Carbon mass of down wood^a on forest land, by county and land status, California, 2006-2015

County	Land Status														
	Unreserved forests						Reserved forests								
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest land		
Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand megagrams</i>															
Alameda	2.4	2.3	205.5	96.3	207.9	96.3	23.2	20.7	19.7	8.8	43.0	21.6	250.9	98.6	
Alpine	413.6	142.9	76.3	40.9	489.9	148.6	731.6	213.5	65.6	31.1	797.2	216.5	1,287.1	262.6	
Amador	605.2	202.7	85.9	32.2	691.1	205.2	82.6	60.6	0.5	0.5	83.1	60.6	774.2	214.0	
Butte	1,684.7	254.3	193.1	61.1	1,877.8	260.9	--	--	56.2	43.5	56.2	43.5	1,934.0	264.5	
Calaveras	832.6	184.6	326.6	80.9	1,159.2	201.3	33.8	32.4	--	--	33.8	32.4	1,193.0	203.9	
Colusa	244.3	103.9	145.5	47.6	389.8	114.0	--	--	--	--	--	--	389.8	114.0	
Contra Costa	--	--	39.3	24.9	39.3	24.9	--	--	25.8	15.7	25.8	15.7	65.1	28.4	
Del Norte	1,131.6	239.7	16.8	11.8	1,148.4	239.6	1,666.4	372.9	50.5	17.7	1,717.0	373.3	2,865.3	443.1	
El Dorado	3,528.6	468.8	303.7	117.2	3,823.2	483.0	363.4	192.0	31.9	20.8	395.4	193.1	4,227.6	520.1	
Fresno	1,013.4	207.8	452.8	141.3	1,466.2	250.9	2,038.1	420.2	331.4	95.2	2,369.5	429.0	3,835.8	496.4	
Glenn	357.6	112.7	150.7	63.4	508.3	129.6	10.4	10.8	6.7	6.8	17.1	12.8	525.4	130.2	
Humboldt	11,254.8	1,048.3	241.0	121.6	11,495.8	1,055.3	2,328.3	535.3	--	--	2,328.3	535.3	13,824.1	1,181.3	
Imperial	--	--	12.6	7.4	12.6	7.4	--	--	1.1	1.5	1.1	1.5	13.7	7.5	
Inyo	33.9	22.9	271.6	67.9	305.5	71.7	67.7	54.0	349.4	84.8	417.2	100.5	722.7	123.2	
Kern	633.9	177.8	718.0	145.5	1,351.9	229.7	5.6	6.3	139.6	88.4	145.3	88.7	1,497.1	246.2	
Lake	734.3	172.8	187.1	57.5	921.4	181.8	48.7	31.6	44.2	24.4	92.8	39.9	1,014.2	186.1	
Lassen	3,244.9	382.5	394.1	81.0	3,639.0	391.0	250.5	127.2	--	--	250.5	127.2	3,889.5	411.0	
Los Angeles	39.9	24.9	133.2	53.5	173.1	59.0	50.4	27.9	64.6	39.2	115.1	48.0	288.2	76.1	
Madera	1,064.2	253.4	175.8	58.7	1,240.0	260.4	1,027.1	401.7	105.9	57.8	1,133.0	405.7	2,373.0	482.0	
Marin	295.5	232.3	48.9	30.9	344.4	234.4	50.7	30.1	29.1	12.6	79.8	32.6	424.2	236.6	
Mariposa	745.3	219.4	324.9	76.2	1,070.3	231.9	1,484.3	359.5	182.5	97.6	1,666.8	370.7	2,737.0	437.1	
Mendocino	6,062.8	602.0	712.6	153.0	6,775.4	619.9	130.9	63.3	191.4	100.7	322.3	118.6	7,097.7	630.9	
Merced	--	--	7.5	6.9	7.5	6.9	--	--	5.0	5.5	5.0	5.5	12.5	8.8	
Modoc	2,055.4	254.0	431.8	95.2	2,487.2	271.1	152.8	82.4	15.4	16.8	168.2	84.0	2,655.4	283.8	
Mono	506.9	149.0	762.2	135.7	1,269.1	199.4	90.7	62.4	368.5	101.3	459.2	119.0	1,728.2	230.7	
Monterey	136.0	104.0	356.8	90.7	492.8	138.0	186.9	112.1	237.5	96.3	424.4	171.6	917.2	220.2	
Napa	194.0	80.4	115.9	34.9	309.9	87.7	--	--	73.4	53.2	73.4	53.2	383.2	102.5	
Nevada	1,391.2	317.6	168.6	67.6	1,559.8	324.7	24.5	27.3	22.9	22.6	47.4	35.4	1,607.3	327.0	
Orange	--	--	--	--	--	--	--	--	6.1	8.3	6.1	8.3	6.1	8.3	
Placer	2,021.8	320.2	209.9	62.9	2,231.7	327.8	185.1	103.5	2.7	1.7	187.7	103.5	2,419.4	343.8	
Plumas	5,640.9	487.9	93.0	54.6	5,733.9	491.1	108.1	52.9	--	--	108.1	52.9	5,842.0	494.0	
Riverside	2.6	2.5	68.3	34.9	70.9	35.0	97.2	74.7	29.6	19.5	126.8	77.2	197.7	83.9	
Sacramento	--	--	0.0	0.0	0.0	0.0	--	--	--	--	--	--	0.0	0.0	
San Benito	--	--	103.8	31.0	103.8	31.0	--	--	--	--	--	--	103.8	31.0	
San Bernardino	435.8	143.1	395.3	107.1	831.1	211.2	140.2	70.7	118.2	62.3	258.4	94.2	1,089.6	231.2	
San Diego	10.9	9.1	108.5	47.4	119.4	48.1	11.7	13.1	55.6	43.5	67.3	45.4	186.7	66.1	
San Joaquin	--	--	45.5	33.6	45.5	33.6	--	--	--	--	--	--	45.5	33.6	
San Luis Obispo	--	--	318.1	81.3	318.1	81.3	--	--	127.3	93.0	127.3	93.0	445.4	123.6	
San Mateo	572.8	238.1	1.3	1.3	574.1	238.1	38.0	24.2	148.0	128.2	186.1	130.4	760.2	271.8	
Santa Barbara	62.6	48.4	170.2	53.0	232.7	71.9	36.9	25.3	78.0	57.8	114.9	63.1	347.7	95.6	
Santa Clara	8.7	6.6	372.1	89.3	380.8	89.6	27.2	20.0	101.2	32.4	128.4	38.1	509.2	97.3	
Santa Cruz	546.5	157.2	35.3	17.5	581.8	158.1	272.3	129.8	1.0	1.7	273.3	129.8	855.1	204.3	
Shasta	4,375.7	414.0	615.1	139.9	4,990.8	436.7	797.9	232.5	139.7	50.9	937.6	238.2	5,928.4	496.1	
Sierra	2,193.2	295.3	12.6	9.1	2,205.8	295.4	9.8	9.4	--	--	9.8	9.4	2,215.6	295.5	
Siskiyou	9,720.8	705.8	358.0	61.6	10,078.8	707.7	1,741.5	298.3	132.6	62.2	1,874.2	303.7	11,952.9	768.4	
Solano	--	--	26.4	14.3	26.4	14.3	--	--	4.5	4.1	4.5	4.1	30.9	17.2	
Sonoma	1,316.5	240.9	146.2	43.3	1,462.7	244.7	200.9	103.9	14.3	9.5	215.2	104.3	1,677.8	265.8	
Stanislaus	--	--	66.1	34.7	66.1	34.7	--	--	27.5	20.3	27.5	20.3	93.6	40.2	
Sutter	--	--	4.5	4.4	4.5	4.4	--	--	--	--	--	--	4.5	4.4	
Tehama	2,585.4	412.5	412.0	112.1	2,997.4	427.3	197.2	81.1	157.0	102.6	354.2	130.5	3,351.6	446.8	
Trinity	5,340.7	502.6	474.9	176.8	5,815.5	532.3	2,786.7	395.6	107.7	62.5	2,894.4	400.4	8,710.0	665.4	
Tulare	833.5	229.3	169.3	46.3	1,002.9	233.9	2,673.7	383.7	963.0	217.7	3,636.8	438.2	4,639.6	496.1	
Tuolumne	2,098.4	308.6	319.7	88.5	2,418.1	320.7	1,917.4	345.9	173.3	76.7	2,090.7	354.0	4,508.8	476.9	
Ventura	1.1	1.0	146.6	41.7	147.7	41.7	11.3	5.3	88.3	42.3	99.5	42.7	247.2	59.6	
Yolo	--	--	37.0	14.3	37.0	14.3	--	--	--	--	--	--	37.0	14.3	
Yuba	707.1	263.7	113.9	37.7	821.0	266.3	--	--	0.0	0.0	0.0	0.0	821.0	266.3	

All counties 76,681.9 1,685.6 11,882.5 537.9 88,564.4 1,716.5 22,101.7 1,114.1 4,894.6 419.1 26,996.4 1,156.9 115,560.7 1,988.0

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — or not present= less than 50 megagrams was estimated.

^aDown wood includes diameters >= .1 inches

Table 95—Average biomass per acre of down wood^a on forest land, by forest type group, ownership group, and land status, California, 2006–2015

Forest type group	Ownership Group and Land Status																	
	U.S. Forest Service				Other Federal				State and local government				Private					
	Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Mean	SE
<i>Tons per acre</i>																		
Softwoods:																		
California mixed conifer	11.369	0.411	11.787	0.806	6.891	1.134	15.427	1.643	8.926	1.476	11.956	2.978	10.103	0.410	11.832	11.832	11.255	0.282
Douglas-fir	12.400	2.065	8.080	2.244	6.558	1.996	11.371	5.649	7.459	2.889	37.556	9.820	15.203	1.368	--	--	13.884	1.076
Fir / spruce / mountain hemlock	11.841	0.646	12.338	2.023	11.163	11.163	13.265	2.096	6.631	6.631	14.902	5.050	9.350	1.011	--	--	11.772	0.628
Lodgepole pine	11.110	1.708	7.860	1.279	--	--	9.649	2.036	5.648	5.648	5.601	5.601	9.300	1.563	--	--	9.062	0.863
Pinyon / juniper woodlands	2.561	2.008	3.447	0.454	--	--	2.216	0.423	--	--	1.751	0.687	--	--	1.231	0.417	2.670	0.275
Ponderosa pine	4.740	0.433	6.591	1.250	7.694	5.055	5.926	4.098	0.645	0.645	4.194	1.766	5.596	0.517	1.396	0.212	5.247	0.328
Redwood	25.874	25.874	23.270	6.952	--	--	45.058	8.743	19.541	9.593	21.987	5.208	20.073	2.273	--	--	21.301	2.018
Western juniper	3.280	0.496	2.850	0.439	5.703	1.301	1.337	0.276	--	--	6.160	8.754	2.643	1.105	1.148	0.245	2.226	0.239
Western white pine	13.209	1.743	3.342	0.806	--	--	8.501	3.953	--	--	--	--	--	--	--	--	4.757	0.903
Other western softwoods	7.851	2.498	5.608	0.922	3.568	2.863	6.517	1.993	--	--	2.858	0.662	14.148	3.750	6.937	6.937	6.924	0.897
Total	10.133	0.288	7.500	0.388	7.025	1.412	8.062	0.653	11.072	3.225	13.332	2.449	11.326	0.447	1.310	0.226	9.406	0.196
Hardwoods:																		
Alder / maple	15.889	2.509	19.616	6.015	7.800	1.321	21.124	8.711	--	--	13.718	6.535	12.441	2.367	14.367	7.966	14.318	1.973
Aspen / birch	4.003	1.874	8.862	3.671	--	--	2.725	0.255	--	--	5.729	5.729	13.109	2.458	--	--	8.097	2.284
Elm / ash / cottonwood	--	--	3.284	3.284	--	--	--	--	--	--	2.100	0.858	--	--	5.933	2.577	4.365	1.649
Tanoak / laurel	13.328	2.081	10.333	1.982	5.521	1.771	9.011	3.541	14.406	9.160	10.171	1.656	13.403	0.958	7.179	1.381	12.086	0.677
Western oak	7.331	0.623	4.745	0.397	5.406	1.136	4.167	0.679	5.624	1.327	3.558	0.619	7.550	0.707	2.737	0.150	4.297	0.162
Woodland hardwoods	1.913	0.414	2.429	0.615	--	--	3.767	1.093	--	--	3.487	0.993	1.443	0.143	0.096	0.040	2.451	0.408
Other hardwoods	9.249	1.944	3.935	1.210	4.075	0.682	0.590	0.318	35.972	15.540	4.172	1.310	10.797	2.132	2.751	0.866	6.993	0.892
Total	8.428	0.602	5.380	0.406	5.510	0.822	4.884	0.733	12.764	5.132	5.159	0.626	10.593	0.577	2.905	0.154	5.800	0.182
Nonstocked																		
Nonstocked	6.002	0.866	7.643	1.549	2.340	2.264	7.284	2.795	--	--	3.990	0.456	6.794	1.008	0.841	0.338	6.424	0.611
All forest types	9.689	0.251	6.834	0.286	6.182	0.819	7.237	0.508	11.448	3.217	7.565	0.863	10.968	0.346	2.725	0.140	7.976	0.136

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.0005 bone-dry tons per acre was estimated; the average was calculated using a ratio of means formula across plots within forest type groups.

^a Includes down wood with diameters ≥ 0.1 inch.

Table 96—Average biomass per acre of down wood^a on forest land, by ownership and land status, California, 2006-2015

Ownership	Land Status																									
	Unreserved forests						Reserved forests																			
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest land													
Tons per acre																										
USDA Forest Service:																										
National Forest	9.689	0.251	3.710	0.268	8.400	0.209	10.498	0.573	4.744	0.424	8.733	0.426	8.487	0.190												
Other federal government:																										
Bureau of Land Management	6.274	0.852	2.485	0.312	3.401	0.329	8.426	2.811	4.227	1.075	5.033	1.057	3.688	0.331												
Department of Defense	4.123	0.465	1.032	0.361	1.515	0.412	--	--	1.635	1.635	1.635	1.635	1.522	0.387												
National Park Service	--	--	--	--	--	--	14.567	1.180	5.294	0.990	11.579	0.903	11.579	0.903												
U.S. Fish and Wildlife Service	--	--	--	--	--	--	0.960	0.960	--	--	0.830	0.830	0.830	0.830												
Other federal			1.339	0.471	1.339	0.471			0.865	0.186	0.865	0.186	1.284	0.416												
Total	6.182	0.819	2.281	0.270	3.133	0.291	14.219	1.132	4.846	0.741	10.437	0.783	7.133	0.466												
State and local government:																										
Local	14.335	8.494	4.507	1.426	7.442	2.859	5.211	0.565	2.531	0.640	3.031	0.565	4.990	1.348												
State	9.951	1.925	2.012	0.617	7.448	1.531	16.445	2.366	4.201	0.891	10.458	1.372	9.862	1.135												
Other public	--	--	0.060	0.060	0.060	0.060	7.436	7.436	2.983	2.983	5.008	1.715	2.816	1.649												
Total	11.448	3.217	3.629	1.041	7.241	1.664	15.000	2.096	3.559	0.604	8.414	1.015	8.078	0.854												
Corporate private	12.427	0.497	3.003	0.376	10.978	0.438	--	--	--	--	--	--	10.978	0.438												
Noncorporate private:																										
NGOs and conservation or natural resource organizations	8.978	1.239	2.080	0.619	6.637	0.946	--	--	--	--	--	--	6.637	0.946												
Unincorporated partnerships, associations, or clubs	9.177	1.993	2.350	0.525	6.831	1.410	--	--	--	--	--	--	6.831	1.410												
Native American	14.009	2.465	2.084	0.261	10.688	1.974	--	--	--	--	--	--	10.688	1.974												
Individual	8.508	0.483	2.710	0.159	4.872	0.221	--	--	--	--	--	--	4.872	0.221												
Total	8.903	0.443	2.676	0.151	5.213	0.216							5.213	0.216												
All private	10.968	0.346	2.725	0.140	7.549	0.219	--	--	--	--	--	--	7.549	0.219												
All owners	10.198	0.205	2.958	0.117	7.677	0.145	11.779	0.509	4.551	0.330	9.145	0.356	7.976	0.136												

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 0.0005 bone-dry tons per acre was estimated; the average was calculated using a ratio of means formula across plots.

^a Includes down wood with diameters ≥ 0.1 inch.

Table 97—Average biomass per acre of down wood^a on forest land, by county and land status, California, 2006–2015

County	Land Status													
	Unreserved forests						Reserved forests							
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest land	
Tons per acre														
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Alameda	1.344	1.344	7.356	2.371	6.990	2.275	5.992	5.992	1.039	0.232	1.879	0.720	4.769	1.486
Alpine	7.361	2.004	3.324	1.339	6.190	1.515	9.967	2.073	2.547	0.879	8.040	1.658	7.219	1.149
Amador	11.256	2.743	2.147	0.586	7.369	1.762	12.494	5.772	0.173	0.173	8.618	4.872	7.486	1.659
Butte	9.356	0.847	3.059	0.715	7.722	0.710	--	--	5.517	2.858	5.517	2.858	7.633	0.691
Calaveras	8.533	1.260	2.574	0.510	5.165	0.693	10.073	10.073	--	--	10.073	10.073	5.237	0.686
Colusa	11.543	2.508	2.166	0.597	4.414	1.044	--	--	--	--	--	--	4.414	1.044
Contra Costa	--	--	2.837	1.181	2.837	1.181	--	--	2.655	0.972	2.655	0.972	2.762	0.793
Del Norte	10.918	1.499	2.651	0.658	10.441	1.450	11.081	1.957	1.620	0.297	9.456	1.683	9.827	1.183
El Dorado	11.643	1.100	5.665	1.754	10.744	0.986	16.778	6.077	3.250	1.186	12.557	4.623	10.891	0.982
Fresno	8.242	1.174	3.672	1.001	5.954	0.806	10.450	1.733	3.267	0.757	7.992	1.219	7.067	0.763
Glenn	7.575	1.550	4.112	1.301	6.062	1.078	3.392	3.392	3.242	3.242	3.332	0.053	5.904	1.023
Humboldt	17.516	1.230	6.755	2.878	16.950	1.184	25.446	3.756	--	--	25.446	3.756	17.960	1.150
Imperial	--	--	0.638	0.281	0.638	0.281	--	--	0.911	0.911	0.911	0.911	0.654	0.265
Inyo	5.170	0.389	2.454	0.493	2.606	0.476	7.966	3.925	3.338	0.606	3.686	0.674	3.136	0.416
Kern	9.451	1.832	3.093	0.537	4.518	0.639	2.150	2.150	7.900	3.868	7.157	3.454	4.685	0.640
Lake	9.242	1.422	3.241	0.670	6.717	0.950	4.885	1.623	2.482	0.933	3.344	0.930	6.149	0.821
Lassen	8.272	0.697	1.976	0.336	6.149	0.517	15.411	3.643	--	--	15.411	3.643	6.397	0.525
Los Angeles	3.482	1.325	2.491	0.852	2.665	0.744	4.177	1.133	6.010	2.905	5.040	1.476	3.283	0.679
Madera	10.739	1.858	1.763	0.514	6.238	1.090	14.540	4.788	5.095	2.032	12.392	3.796	8.177	1.442
Marin	38.123	16.854	4.320	1.657	18.063	9.692	5.931	0.662	2.127	0.442	3.592	0.793	10.275	4.992
Mariposa	11.536	2.586	2.631	0.481	5.689	1.050	17.032	2.785	8.716	3.362	15.421	2.401	9.240	1.195
Mendocino	11.028	0.801	4.745	0.785	9.680	0.668	5.560	1.715	7.043	2.834	6.355	1.725	9.455	0.636
Merced	--	--	0.668	0.607	0.668	0.607	--	--	1.793	1.793	1.793	1.793	0.890	0.556
Modoc	6.255	0.526	1.583	0.315	4.136	0.357	9.146	2.893	2.887	2.968	7.631	2.585	4.259	0.359
Mono	5.761	1.391	3.851	0.523	4.439	0.565	8.496	3.859	4.750	0.927	5.203	0.964	4.619	0.487
Monterey	14.905	6.973	2.514	0.533	3.262	0.791	15.964	6.481	4.543	1.579	6.633	2.263	4.265	0.891
Napa	7.398	1.837	2.803	0.635	4.586	0.957	--	--	7.555	3.483	7.555	3.483	4.959	0.970
Nevada	9.337	1.700	4.412	1.276	8.331	1.400	21.118	21.118	7.126	7.126	10.833	4.051	8.388	1.368
Orange	--	--	--	--	--	--	--	--	16.296	16.296	16.296	16.296	4.466	4.466
Placer	9.606	1.065	4.633	0.923	8.725	0.917	9.014	3.886	0.352	0.142	6.687	3.069	8.523	0.883
Plumas	8.891	0.532	3.993	1.967	8.718	0.521	6.400	1.509	--	--	6.400	1.509	8.660	0.510
Riverside	1.124	1.124	4.017	1.253	3.670	1.151	11.498	5.649	2.160	1.125	5.719	2.794	4.765	1.600
Sacramento	--	--	0.004	0.004	0.004	0.004	--	--	--	--	--	--	0.004	0.004
San Benito	--	--	1.691	0.353	1.691	0.353	--	--	--	--	--	--	1.691	0.353
San Bernardino	10.637	2.589	3.973	0.895	5.916	1.260	9.247	1.923	2.257	1.050	3.825	1.108	5.237	0.929
San Diego	1.659	0.875	3.454	1.110	3.144	0.954	4.270	4.270	3.392	2.200	3.518	1.889	3.269	0.897
San Joaquin	--	--	7.294	2.792	7.294	2.792	--	--	--	--	--	--	7.294	2.792
San Luis Obispo	--	--	3.109	0.623	3.109	0.623	--	--	8.554	4.923	8.554	4.923	3.801	0.876
San Mateo	28.595	4.741	1.116	1.116	27.077	4.764	4.792	1.019	11.033	7.797	8.714	5.044	17.864	4.175
Santa Barbara	7.642	3.750	2.680	0.607	3.246	0.760	4.863	1.015	3.312	2.125	3.690	1.647	3.381	0.728
Santa Clara	1.920	0.891	4.838	0.676	4.676	0.651	5.051	0.831	2.473	0.474	2.773	0.476	3.986	0.475
Santa Cruz	8.907	1.768	3.150	0.952	8.019	1.544	14.387	4.098	0.948	0.948	13.656	4.029	9.237	1.542
Shasta	8.024	0.514	3.023	0.594	6.665	0.428	12.171	2.530	4.452	0.841	9.673	1.823	7.010	0.436
Sierra	9.333	0.772	2.268	0.149	9.169	0.763	4.029	4.029	--	--	4.029	4.029	9.118	0.759
Siskiyou	9.621	0.523	1.770	0.230	8.311	0.457	10.379	1.243	5.434	1.874	9.751	1.125	8.508	0.424
Solano	--	--	3.681	1.074	3.681	1.074	--	--	2.667	2.667	2.667	2.667	3.486	0.804
Sonoma	10.063	1.141	2.774	0.557	7.970	0.912	15.342	3.939	1.718	0.607	10.046	3.322	8.187	0.889
Stanislaus	--	--	1.763	0.778	1.763	0.778	--	--	2.931	1.292	2.931	1.292	1.997	0.684
Sutter	--	--	0.831	0.464	0.831	0.464	--	--	--	--	--	--	0.831	0.464
Tehama	12.345	1.374	2.223	0.543	7.593	0.875	7.621	1.890	10.730	5.545	8.745	2.359	7.701	0.824
Trinity	10.015	0.638	8.425	2.611	9.863	0.630	12.059	1.182	5.323	2.482	11.517	1.127	10.357	0.557
Tulare	9.049	1.965	1.457	0.322	4.814	0.983	9.899	0.996	7.175	1.242	8.995	0.793	7.573	0.636
Tuolumne	9.878	0.953	3.427	0.745	7.909	0.750	12.585	1.527	7.436	2.360	11.902	1.384	9.366	0.709
Ventura	0.193	0.105	2.339	0.466	2.161	0.444	0.699	0.125	3.863	1.312	2.555	0.874	2.304	0.425
Yolo	--	--	1.321	0.325	1.321	0.325	--	--	--	--	--	--	1.321	0.325
Yuba	15.151	4.295	3.105	0.578	9.849	2.650	--	--	0.004	0.004	0.004	0.004	9.504	2.575
All counties	10.198	0.205	2.958	0.117	7.677	0.145	11.779	0.509	4.551	0.330	9.145	0.356	7.977	0.136

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- or not present= less than 0.0005 bone-dry tons per acre was estimated; the average was calculated using a ratio of means formula across plots.

^aDown wood includes diameters >= .1 inches

Table 98—Average biomass per acre of all dead wood (dead trees and down wood)^a on forest land, by county and land status, California, 2006-2015

County	Land Status													
	Unreserved forests						Reserved forests							
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest land	
Tons per acre														
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Alameda	1.344	1.344	10.762	2.801	10.189	2.728	6.364	6.364	1.507	0.328	2.331	0.740	6.774	1.874
Alpine	18.131	3.118	3.788	1.532	13.971	2.554	19.933	3.435	4.846	1.155	16.015	2.810	15.107	1.936
Amador	22.384	6.013	3.300	0.726	14.241	3.792	24.919	8.764	0.173	0.173	17.134	8.404	14.511	3.525
Butte	15.920	2.006	5.519	0.839	13.221	1.569	--	--	6.565	3.511	6.565	3.511	12.954	1.517
Calaveras	17.869	4.847	3.922	0.660	9.985	2.268	16.218	16.218	--	--	16.218	16.218	10.077	2.236
Colusa	25.274	8.882	2.848	0.714	8.222	2.809	--	--	--	--	--	--	8.222	2.809
Contra Costa	--	--	3.008	1.116	3.008	1.116	--	--	2.695	0.953	2.695	0.953	2.879	0.760
Del Norte	24.653	3.679	11.540	3.225	23.897	3.501	24.492	3.796	3.897	0.853	20.954	3.295	22.064	2.440
El Dorado	22.800	1.899	7.059	1.756	20.434	1.698	43.568	17.630	8.439	3.245	32.605	13.174	21.421	1.916
Fresno	19.360	2.484	5.947	1.470	12.643	1.605	21.620	2.739	6.456	1.315	16.431	1.992	14.712	1.317
Glenn	18.993	6.029	5.422	1.803	13.062	3.664	11.439	11.439	3.242	3.242	8.145	2.872	12.779	3.463
Humboldt	30.557	2.227	8.699	2.992	29.407	2.135	57.345	9.480	--	--	57.345	9.480	32.728	2.274
Imperial	--	--	1.451	0.727	1.451	0.727	--	--	2.047	2.047	2.047	2.047	1.485	0.686
Inyo	13.858	1.367	3.732	0.664	4.299	0.732	10.009	5.484	4.856	0.858	5.243	0.936	4.763	0.594
Kern	18.208	4.082	4.813	0.768	7.816	1.209	2.385	2.385	10.506	3.503	9.456	3.239	7.920	1.151
Lake	16.053	3.062	5.020	1.161	11.410	1.970	6.904	2.488	3.949	0.875	5.009	1.176	10.332	1.678
Lassen	12.134	1.001	2.694	0.485	8.951	0.749	32.032	9.640	--	--	32.032	9.640	9.569	0.821
Los Angeles	7.654	1.773	4.847	1.174	5.342	1.041	10.880	5.320	10.842	3.058	10.862	3.168	6.778	1.193
Madera	25.954	5.392	2.480	0.561	14.182	3.029	37.937	9.789	8.428	3.558	31.226	7.917	19.552	3.346
Marin	50.750	14.113	8.380	3.980	25.605	10.461	24.514	11.023	2.362	0.535	10.892	5.729	17.687	6.163
Mariposa	16.783	3.469	4.138	0.880	8.481	1.486	44.200	5.698	13.378	4.560	38.229	5.082	19.336	2.509
Mendocino	18.015	1.143	6.304	0.984	15.503	0.966	11.469	3.461	9.698	3.390	10.520	2.438	15.166	0.919
Merced	--	--	1.417	1.370	1.417	1.370	--	--	1.793	1.793	1.793	1.793	1.491	1.110
Modoc	9.554	0.935	1.954	0.362	6.107	0.593	30.287	9.793	3.219	3.322	23.737	8.688	6.730	0.690
Mono	8.075	1.763	5.708	0.747	6.437	0.757	13.832	5.541	6.987	1.260	7.815	1.367	6.762	0.660
Monterey	32.889	11.835	3.789	0.762	5.547	1.441	16.351	6.652	16.060	4.723	16.113	4.132	8.691	1.686
Napa	12.372	2.479	4.265	1.082	7.410	1.466	--	--	14.574	6.504	14.574	6.504	8.310	1.607
Nevada	16.753	2.559	5.305	1.401	14.416	2.135	21.118	21.118	7.888	7.888	11.393	3.831	14.347	2.088
Orange	--	--	--	--	--	--	--	--	16.296	16.296	16.296	16.296	4.466	4.466
Placer	20.016	1.977	7.359	1.481	17.774	1.722	18.667	7.849	1.649	0.626	14.095	6.229	17.410	1.674
Plumas	20.771	1.581	6.067	2.616	20.250	1.537	18.513	5.899	--	--	18.513	5.899	20.207	1.506
Riverside	1.124	1.124	5.346	1.410	4.839	1.336	16.273	7.024	2.266	1.097	7.605	3.692	6.318	2.089
Sacramento	--	--	0.004	0.004	0.004	0.004	--	--	--	--	--	--	0.004	0.004
San Benito	--	--	2.511	0.521	2.511	0.521	--	--	--	--	--	--	2.511	0.521
San Bernardino	27.337	5.954	5.515	1.118	11.879	2.445	32.117	10.259	4.502	2.013	10.699	3.718	11.496	2.045
San Diego	20.903	10.442	6.977	2.296	9.388	2.981	58.835	58.835	11.253	6.285	18.070	8.946	12.295	3.699
San Joaquin	--	--	10.887	4.911	10.887	4.911	--	--	--	--	--	--	10.887	4.911
San Luis Obispo	--	--	4.907	0.809	4.907	0.809	--	--	8.554	4.923	8.554	4.923	5.370	0.962
San Mateo	37.953	6.075	1.116	1.116	35.918	6.137	26.675	8.471	13.889	10.376	18.640	7.400	27.249	5.312
Santa Barbara	9.632	4.413	4.996	0.961	5.526	1.043	28.406	11.253	5.763	3.916	11.281	5.269	7.269	1.813
Santa Clara	4.310	2.492	7.542	1.720	7.363	1.637	11.372	3.137	4.801	1.324	5.566	1.335	6.711	1.160
Santa Cruz	15.194	2.954	6.185	2.385	13.804	2.586	18.460	4.246	1.266	1.266	17.525	4.301	14.609	2.244
Shasta	13.632	0.953	4.514	0.875	11.154	0.770	25.200	5.426	8.130	2.364	19.675	3.987	12.131	0.837
Sierra	18.095	1.812	7.595	3.828	17.852	1.781	4.029	4.029	--	--	4.029	4.029	17.714	1.773
Siskiyou	18.573	1.287	3.132	0.481	15.997	1.106	32.190	4.660	11.196	2.477	29.524	4.138	17.848	1.126
Solano	--	--	3.681	1.074	3.681	1.074	--	--	2.667	2.667	2.667	2.667	3.486	0.804
Sonoma	15.420	1.753	3.566	0.622	12.016	1.402	41.754	12.749	2.197	1.029	26.378	10.570	13.517	1.758
Stanislaus	--	--	2.014	0.804	2.014	0.804	--	--	3.621	1.406	3.621	1.406	2.336	0.723
Sutter	--	--	0.831	0.464	0.831	0.464	--	--	--	--	--	--	0.831	0.464
Tehama	22.433	2.636	3.102	0.692	13.358	1.636	25.683	4.677	13.877	6.488	21.417	4.158	14.108	1.545
Trinity	19.705	1.355	12.999	3.327	19.064	1.273	32.450	3.387	6.898	3.126	30.393	3.211	22.450	1.338
Tulare	24.701	4.980	2.649	0.496	12.399	2.558	25.908	2.461	12.613	1.899	21.494	1.835	18.401	1.517
Tuolumne	20.649	2.819	5.276	0.909	15.958	2.068	34.166	5.202	13.182	5.264	31.382	4.662	21.586	2.223
Ventura	1.266	0.749	4.192	1.108	3.951	1.033	20.042	12.361	7.420	2.541	12.639	5.590	7.105	2.247
Yolo	--	--	1.914	0.627	1.914	0.627	--	--	--	--	--	--	1.914	0.627
Yuba	23.004	5.883	3.537	0.613	14.435	3.738	--	--	8.171	10.419	8.171	10.419	14.216	3.641
All counties	19.147	0.411	4.432	0.162	14.023	0.282	29.387	1.224	7.957	0.545	21.579	0.839	15.563	0.282

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- or not present = less than 0.0005 bone-dry tons per acre was estimated; the average was calculated using a ratio of means formula across plots.

^aIncludes down wood with diameters ≥ 0.1 inch at the transect intersection.

Table 99—Volume of live trees, dead trees^a, and down wood on forest land, by stand age class, California, 2006-2015

Stand age class (years)	Live Trees		Dead Trees		Down Wood		All Volume	
	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>								
1 - 20	874.0	105.5	1,736.8	419.0	1,649.6	173.2	4,260.4	465.5
21 - 40	4,454.4	341.0	912.9	190.8	2,000.1	193.3	7,367.4	435.9
41 - 60	12,079.0	645.5	2,359.2	441.3	3,812.1	305.2	18,250.3	839.4
61 - 80	16,274.7	746.9	1,712.8	137.4	3,843.3	224.2	21,830.8	791.8
81 - 100	20,742.3	870.5	2,766.9	213.7	4,470.0	233.3	27,979.2	926.2
101 - 120	13,128.6	752.2	1,671.9	134.0	2,805.1	191.6	17,605.6	787.7
121 - 140	9,367.7	694.8	1,378.2	139.3	2,112.9	185.8	12,858.8	732.6
141 - 160	8,484.8	644.2	1,551.4	147.7	2,133.4	194.3	12,169.6	688.9
161 - 180	3,786.0	475.3	647.0	95.6	1,034.2	161.5	5,467.2	511.0
181 - 200	4,575.8	555.1	976.6	138.2	1,321.2	186.5	6,873.6	601.7
201+	19,292.6	1,301.8	3,408.0	252.3	4,237.9	289.5	26,938.5	1,357.3
Unknown	133.9	27.0	1,013.7	169.9	718.2	94.6	1,865.8	196.3
All classes	113,193.9	1,606.7	20,135.5	748.5	30,138.1	589.6	163,467.5	1,868.0

Note--includes trees >=1 inch in dbh. Totals may be off because of rounding; data subject to sampling error; SE=standard error.

^aLive and dead tree volume is aboveground volume of the tree from ground to tip (live trees) and to actual height (dead trees), including stem volume and stem bark.

Table 100—Biomass of live trees, dead trees^a, and down wood on forest land, by stand age class, California, 2006-2015

Stand age class (years)	Live Trees		Dead Trees		Down Wood		All Biomass	
	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand tons</i>								
1 - 20	16,434.7	1,920.8	15,507.4	3,166.7	13,372.0	1,292.8	45,314.10	3,922.9
21 - 40	81,122.1	6,111.4	6,579.6	1,224.5	15,366.8	1,391.7	103,068.50	6,386.3
41 - 60	218,482.1	11,523.7	17,692.1	2,365.6	29,628.0	2,178.9	265,802.20	11,964.1
61 - 80	300,152.4	13,669.8	20,005.6	1,540.2	31,449.8	1,751.7	351,607.80	13,867.4
81 - 100	380,320.0	15,910.2	32,501.4	2,169.9	36,955.2	1,883.8	449,776.60	16,167.6
101 - 120	240,977.9	13,808.8	21,948.2	1,806.9	22,078.3	1,447.9	285,004.40	14,001.6
121 - 140	171,155.1	12,675.7	18,009.5	1,843.6	16,637.0	1,441.3	205,801.60	12,889.9
141 - 160	155,561.3	11,767.4	20,107.6	2,014.3	16,174.7	1,467.2	191,843.60	12,028.4
161 - 180	69,496.9	8,715.5	8,720.5	1,416.1	7,818.9	1,194.3	86,036.30	8,910.2
181 - 200	84,998.0	10,282.9	12,902.7	1,775.1	10,354.8	1,465.5	108,255.50	10,537.4
201+	354,617.7	24,256.5	46,092.5	3,560.7	31,760.2	2,114.5	432,470.40	24,607.5
Unknown	2,352.3	464.1	15,788.2	2,810.2	5,951.2	728.3	24,091.70	2,939.9
All classes	2,075,670.5	29,446.9	235,855.4	6,826.1	237,546.9	4,359.0	2,549,072.80	30,540.4

Note--includes trees >=1 inch in dbh. Totals may be off because of rounding; data subject to sampling error; SE=standard error.

^aLive and dead tree biomass is total aboveground biomass of the tree from ground to tip (live trees) and to actual height (dead trees), including stem wood, bark, and branches.

Table 101—Carbon mass of live trees, dead trees^a, and down wood on forest land, by stand age class, California, 2006–2015

Stand age class (years)	Live Trees		Dead Trees		Down Wood		All Carbon Mass	
	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand megagrams</i>								
1 - 20	7,454.8	871.3	7,034.2	1,436.4	6,065.5	586.4	6,065.5	1,779.4
21 - 40	36,797.0	2,772.1	2,984.5	555.4	6,970.4	631.3	46,751.9	2,896.8
41 - 60	99,103.5	5,227.1	8,025.1	1,073.0	13,439.3	988.4	120,567.9	5,426.9
61 - 80	136,149.1	6,200.6	9,074.5	698.7	14,265.6	794.6	159,489.2	6,290.2
81 - 100	172,513.1	7,216.9	14,742.7	984.3	16,762.9	854.5	204,018.7	7,333.7
101 - 120	109,307.6	6,263.7	9,955.7	819.6	10,014.7	656.8	129,278.0	6,351.1
121 - 140	77,636.0	5,749.7	8,169.1	836.2	7,546.5	653.8	93,351.6	5,846.9
141 - 160	70,562.6	5,337.7	9,120.8	913.7	7,336.8	665.5	87,020.2	5,456.1
161 - 180	31,523.8	3,953.4	3,955.6	642.3	3,546.7	541.7	39,026.1	4,041.7
181 - 200	38,555.1	4,664.3	5,852.7	805.2	4,696.9	664.8	49,104.7	4,779.7
201+	160,854.6	11,002.7	20,907.6	1,615.2	14,406.4	959.2	196,168.6	11,161.9
Unknown	1,067.0	210.5	7,161.5	1,274.7	2,699.4	330.4	10,927.9	1,333.5
All classes	941,524.1	13,357.1	106,984.0	3,096.3	107,751.3	1,977.3	1,156,259.4	13,853.1

Note—includes trees >=1 inch in dbh. Totals may be off because of rounding; data subject to sampling error; SE=standard error.

^aLive and dead tree carbon mass is total aboveground carbon mass of the tree from ground to tip (live trees) and to actual height (dead trees), including stem wood, bark, and branches.

Table 102—Average aboveground stem volume per acre of live trees, dead trees^a, and down wood on forest land, by stand age class, California, 2006-2015

Stand age class (years)	Live Trees		Dead Trees		Down Wood		All Volume	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Cubic feet per acre</i>								
1 - 20	667.69	69.39	1,326.79	307.24	1,260.16	106.39	3,254.64	332.5
21 - 40	2,528.56	133.80	518.22	104.29	1,135.39	89.52	4,182.17	191.8
41 - 60	3,814.62	141.20	745.05	136.32	1,203.87	84.20	5,763.54	213.6
61 - 80	3,700.88	116.26	389.50	28.32	873.96	41.62	4,964.34	126.7
81 - 100	4,251.27	119.09	567.10	40.07	916.15	38.00	5,734.52	131.3
101 - 120	4,870.90	180.56	620.29	41.42	1,040.75	54.14	6,531.94	193.0
121 - 140	5,827.67	268.65	857.38	70.83	1,314.44	86.60	7,999.49	291.0
141 - 160	5,291.79	250.19	967.58	71.84	1,330.57	91.22	7,589.94	275.8
161 - 180	5,407.54	461.23	924.05	105.38	1,477.16	182.97	7,808.75	507.3
181 - 200	6,006.33	490.35	1,281.96	143.55	1,734.27	188.56	9,022.56	544.6
201+	7,079.58	362.86	1,250.59	75.57	1,555.15	81.62	9,885.32	379.5
Unknown	144.56	27.32	1,094.32	160.46	775.33	82.71	2,014.21	182.6
All classes	4,266.10	58.78	758.87	28.14	1,135.86	21.72	6,160.83	68.7

Note—includes trees >=1 inch in dbh. Totals may be off because of rounding; data subject to sampling error; SE=standard error.

^aLive and dead tree volume is aboveground volume of the tree from ground to tip (live trees) and to actual height (dead trees), including stem volume and stem bark.

Table 103--Average aboveground biomass per acre of live trees, dead trees^a, and down wood on forest land, by stand age class, California, 2006-2015

Stand age class (years)	Live Trees		Dead Trees		Down Wood		All Biomass	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Tons per acre</i>								
1 - 20	12.55	1.25	11.85	2.28	10.22	0.75	34.62	2.71
21 - 40	46.05	2.36	3.73	0.66	8.72	0.62	58.50	2.53
41 - 60	69.00	2.48	5.59	0.71	9.36	0.58	83.95	2.64
61 - 80	68.25	2.11	4.55	0.31	7.15	0.32	79.95	2.16
81 - 100	77.95	2.17	6.66	0.39	7.57	0.30	92.18	2.23
101 - 120	89.41	3.32	8.14	0.57	8.19	0.40	105.74	3.39
121 - 140	106.48	4.90	11.20	0.94	10.35	0.66	128.03	5.03
141 - 160	97.02	4.55	12.54	1.01	10.09	0.69	119.65	4.71
161 - 180	99.26	8.48	12.46	1.64	11.17	1.34	122.89	8.74
181 - 200	111.57	9.05	16.94	1.83	13.59	1.48	142.10	9.35
201+	130.13	6.82	16.91	1.09	11.65	0.58	158.69	6.93
Unknown	2.54	0.47	17.04	2.69	6.42	0.61	26.00	2.80
All classes	78.23	1.08	8.89	0.26	8.95	0.16	96.07	1.12

Note--includes trees >=1 inch in dbh. Totals may be off because of rounding; data subject to sampling error; SE=standard error.

^aLive and dead tree biomass is total aboveground biomass of the tree from ground to tip (live trees) and to actual height (dead trees), including stem wood, bark, and branches.

Table 104—Average aboveground carbon mass per hectare of live trees, dead trees^a, and down wood on forest land, by stand age class, California, 2006-2015

Stand age class (years)	Live Trees		Dead Trees		Down Wood		All Carbon Mass	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Kilograms per hectare</i>								
1 - 20	14,072.15	1,398.77	13,278.15	2,550.45	11,449.73	844.93	38,800.03	3,029.1
21 - 40	51,615.10	2,640.87	4,186.37	741.99	9,777.36	695.24	65,578.83	2,829.9
41 - 60	77,337.38	2,781.36	6,262.58	800.62	10,487.59	654.03	94,087.55	2,967.3
61 - 80	76,504.59	2,362.97	5,099.15	352.12	8,016.12	355.12	89,619.86	2,415.3
81 - 100	87,370.59	2,428.61	7,466.53	440.40	8,489.68	339.04	103,326.80	2,491.4
101 - 120	100,212.62	3,716.44	9,127.32	635.96	9,181.46	442.92	118,521.40	3,796.4
121 - 140	119,345.22	5,494.43	12,557.87	1,057.30	11,600.86	743.00	143,503.95	5,644.4
141 - 160	108,747.13	5,101.51	14,056.47	1,130.23	11,307.10	767.87	134,110.70	5,281.3
161 - 180	111,260.85	9,500.60	13,961.08	1,835.44	12,517.66	1,502.06	137,739.59	9,792.2
181 - 200	125,056.00	10,143.16	18,983.49	2,045.77	15,234.83	1,662.31	159,274.32	10,480.1
201+	145,858.92	7,641.75	18,958.47	1,219.34	13,063.37	653.41	177,880.76	7,766.0
Unknown	2,846.24	525.78	19,103.71	3,018.17	7,200.90	684.65	29,150.85	3,139.2
All classes	87,684.04	1,209.44	9,963.41	287.36	10,034.86	178.16	107,682.31	1,255.8

Note--includes trees >=1 inch in dbh. Totals may be off because of rounding; data subject to sampling error; SE=standard error.

^aLive and dead tree carbon mass is total aboveground carbon mass of the tree from ground to tip (live trees) and to actual height (dead trees), including stem wood, bark, and branches.

Table 105—Area of forest land, by national forest and land status, California, 2006-2015

	Land Status															
	Unreserved forests						Reserved forests									
	Timberland		Other forest		Total		Productive		Other forest		Total		Total		All forest land	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand acres</i>																
National forests:																
Angeles	25.3	12.2	83.0	20.6	108.3	24.0	33.4	14.9	16.9	10.4	50.3	18.0	158.5	29.9		
Cleveland	6.0	6.0	5.2	3.1	11.2	6.8	--	--	--	--	--	--	11.2	6.8		
Eldorado	498.4	52.9	11.6	8.5	509.9	53.5	58.5	19.6	31.7	14.7	90.2	24.5	600.1	58.8		
Inyo	172.3	31.7	353.5	43.8	525.7	53.4	179.7	33.6	263.1	38.8	442.8	49.8	968.6	72.1		
Klamath	895.5	69.3	109.8	25.2	1,005.2	73.6	290.1	41.1	34.1	13.6	324.2	42.9	1,329.5	84.8		
Lake Tahoe Basin	70.3	20.4	17.8	10.1	88.2	22.8	13.9	9.9	9.6	7.0	23.5	12.1	111.7	25.8		
Lassen	889.0	69.3	101.3	24.1	990.3	73.2	41.4	15.7	8.4	6.9	49.8	17.2	1,040.2	75.2		
Los Padres	37.6	14.2	270.1	37.9	307.7	40.7	77.5	21.7	222.2	36.0	299.7	41.1	607.4	57.8		
Mendocino	415.5	48.3	163.2	30.6	578.8	56.7	136.6	29.0	74.9	22.0	211.5	36.1	790.3	67.1		
Modoc	643.2	58.9	474.5	49.9	1,117.7	76.5	36.8	15.2	3.0	3.2	39.8	15.5	1,157.5	78.0		
Plumas	1,089.7	75.7	51.8	16.3	1,141.5	77.5	12.7	9.4	--	--	12.7	9.4	1,154.3	78.1		
Rogue River	29.0	10.9	10.6	8.3	39.6	11.6	5.8	6.0	--	--	5.8	6.0	45.4	11.2		
San Bernardino	74.8	21.2	108.6	24.8	183.4	32.5	40.1	16.7	29.3	13.7	69.5	21.6	252.9	39.0		
Sequoia	258.2	38.9	91.3	23.1	349.5	45.2	424.1	50.5	127.5	27.1	551.6	57.4	901.1	72.6		
Shasta-Trinity	1,246.0	80.9	94.3	22.5	1,340.3	83.9	542.4	54.4	67.0	20.0	609.3	57.6	1,949.6	101.0		
Sierra	481.4	52.4	141.3	28.1	622.7	59.2	309.5	42.7	151.0	30.3	460.5	50.7	1,083.3	77.9		
Siskyou	28.9	11.2	1.9	3.3	30.8	10.9	5.8	6.3	--	--	5.8	6.3	36.6	12.6		
Six Rivers	583.7	56.7	54.9	18.0	638.6	59.4	363.1	46.3	99.4	24.4	462.4	52.0	1,101.1	77.6		
Stanislaus	505.0	53.1	96.7	23.2	601.7	57.8	139.0	29.8	22.7	11.5	161.7	31.8	763.4	66.0		
Tahoe	783.2	65.6	28.9	13.3	812.1	66.7	22.9	12.3	6.7	6.8	29.6	14.1	841.7	68.2		
Toiyabe	137.6	27.6	169.4	31.0	307.0	41.2	48.1	17.5	63.6	19.7	111.7	26.5	418.7	48.9		
All national forests	8,870.6	120.8	2,439.7	99.6	11,310.3	120.5	2,781.7	90.6	1,231.0	76.0	4,012.8	93.2	15,323.1	122.0		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 megagrams was estimated.

Table 106—Net volume of live trees on forest land, by national forest and land status, California, 2006-2015

	Land Status															
	Unreserved forests						Reserved forests									
	Timberland		Other forest		Total		Productive		Other forest		Total		Total		All forest land	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Million cubic feet</i>																
National forests:																
Angeles	27.2	20.7	55.3	20.8	82.4	29.3	68.7	36.9	6.2	3.6	74.9	37.1	157.4	47.3		
Cleveland	--	--	3.7	2.4	3.7	2.4	--	--	--	--	--	--	3.7	2.4		
Eldorado	2,982.1	377.8	24.7	18.7	3,006.8	378.0	220.1	83.5	34.9	19.4	255.0	85.7	3,261.8	387.6		
Inyo	412.4	91.9	238.5	47.0	650.9	102.7	617.8	156.2	318.2	65.7	936.0	165.7	1,586.9	194.1		
Klamath	4,326.2	432.2	65.4	21.3	4,391.6	432.8	1,404.0	266.1	28.9	19.6	1,432.9	267.2	5,824.5	507.1		
Lake Tahoe Basin	275.5	91.1	23.9	20.6	299.3	93.4	178.1	151.5	13.0	10.8	191.1	151.9	490.4	178.3		
Lassen	3,344.1	338.1	73.1	24.5	3,417.2	338.7	135.0	57.6	4.5	5.0	139.5	57.8	3,556.7	343.6		
Los Padres	72.4	38.1	210.6	46.7	283.0	61.8	408.6	237.8	195.6	57.4	604.2	245.9	887.2	253.5		
Mendocino	1,646.8	236.2	282.4	78.1	1,929.2	247.9	557.7	149.3	53.8	24.8	611.5	151.0	2,540.7	289.7		
Modoc	1,343.4	172.1	192.7	31.8	1,536.0	175.0	146.9	79.6	1.9	2.1	148.7	79.6	1,684.8	192.3		
Plumas	4,898.7	453.5	48.7	26.1	4,947.5	454.2	152.2	112.1	--	--	152.2	112.1	5,099.6	467.8		
Rogue River	150.8	70.2	36.9	35.2	187.7	72.6	48.8	57.0	--	--	48.8	57.0	236.6	81.0		
San Bernardino	146.6	57.5	80.2	26.1	226.7	63.1	74.7	36.9	35.0	20.9	109.7	42.4	336.5	76.0		
Sequoia	713.8	137.5	27.2	10.1	741.0	137.9	2,069.3	328.0	149.5	54.3	2,218.8	332.3	2,959.9	358.3		
Shasta-Trinity	5,801.9	469.9	151.8	44.4	5,953.6	471.7	2,580.5	316.6	146.1	51.7	2,726.6	319.1	8,680.2	566.7		
Sierra	2,753.9	357.2	227.1	60.7	2,981.0	361.3	1,760.6	301.6	268.4	85.8	2,028.9	310.1	5,009.9	476.1		
Siskyou	141.0	76.7	4.6	8.1	145.5	76.3	50.0	54.2	--	--	50.0	54.2	195.6	93.6		
Six Rivers	3,752.7	443.1	129.8	55.3	3,882.5	445.8	2,060.9	356.1	145.4	65.3	2,206.2	360.7	6,088.8	566.8		
Stanislaus	2,355.3	315.4	118.1	56.2	2,473.4	319.8	675.4	165.8	32.0	19.4	707.4	166.9	3,180.8	360.7		
Tahoe	3,276.9	364.3	70.9	42.9	3,347.8	365.7	70.9	44.2	3.3	3.4	74.2	44.3	3,422.0	368.4		
Toiyabe	276.0	67.2	191.2	59.6	467.2	89.9	140.6	54.5	83.0	42.2	223.6	69.0	690.8	113.4		
All national forests	38,697.6	838.1	2,256.6	177.2	40,954.2	820.7	13,420.9	642.9	1,519.5	163.2	14,940.4	636.1	55,894.6	945.4		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50 megagrams was estimated.

Table 107—Aboveground biomass of live trees on forest land, by national forest and land status, California, 2006-2015

	Land Status														
	Unreserved forests										Reserved forests				
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest land		
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	
<i>Thousand tons</i>															
National forests:															
Angeles	724.2	486.8	1,484.3	517.8	2,208.4	710.7	1,993.4	1,060.3	499.3	314.2	2,492.7	1,102.3	4,701.1	1,311.6	
Cleveland	--	--	164.7	110.1	164.7	110.1	--	--	--	--	--	--	164.7	110.1	
Eldorado	60,372.1	7,541.1	696.7	566.3	61,068.8	7,555.0	4,282.1	1,604.9	862.4	477.3	5,144.5	1,673.2	66,213.3	7,738.1	
Inyo	7,467.5	1,759.2	3,970.5	768.3	11,438.1	1,910.9	11,144.8	2,779.1	6,626.5	1,322.9	17,771.3	3,010.7	29,209.4	3,543.8	
Klamath	90,471.7	8,848.0	1,853.4	577.2	92,325.0	8,865.3	29,615.1	5,507.5	689.3	435.4	30,304.4	5,535.0	122,629.4	10,417.1	
Lake Tahoe Basin	5,808.4	1,938.7	443.5	343.3	6,252.0	1,968.9	3,424.3	2,909.3	281.6	249.6	3,706.0	2,920.0	9,957.9	3,521.7	
Lassen	69,181.6	6,970.6	2,135.0	738.4	71,316.6	7,003.4	2,792.1	1,198.7	118.5	132.3	2,910.5	1,205.9	74,227.1	7,106.4	
Los Padres	1,791.6	923.7	4,973.6	1,107.8	6,765.2	1,477.8	8,667.9	5,127.2	5,862.8	1,707.5	14,530.8	5,426.9	21,295.9	5,624.5	
Mendocino	35,709.2	5,009.7	7,887.1	2,129.9	43,596.3	5,417.5	11,666.7	3,031.6	1,918.8	843.0	13,585.4	3,137.4	57,181.8	6,249.5	
Modoc	27,689.8	3,612.6	4,859.2	705.9	32,549.0	3,682.4	3,239.3	1,756.1	56.8	63.4	3,296.1	1,756.1	35,845.1	4,079.7	
Plumas	101,929.9	9,289.6	1,291.8	744.1	103,221.7	9,312.5	3,036.4	2,236.2	--	--	3,036.4	2,236.2	106,258.1	9,577.2	
Rogue River	3,250.6	1,436.5	882.5	828.5	4,133.0	1,524.8	969.2	1,131.8	--	--	969.2	1,131.8	5,102.2	1,658.6	
San Bernardino	3,305.4	1,288.1	2,305.5	737.5	5,610.9	1,482.7	1,904.6	969.9	583.5	346.8	2,488.1	1,030.0	8,099.0	1,804.6	
Sequoia	14,668.1	2,917.0	787.2	299.8	15,455.3	2,931.8	41,938.1	6,640.7	3,915.2	1,508.3	45,853.4	6,805.1	61,308.6	7,379.8	
Shasta-Trinity	120,786.4	9,530.6	4,249.4	1,208.2	125,035.8	9,602.4	53,585.7	6,414.2	3,894.0	1,434.2	57,479.8	6,523.0	182,515.6	11,543.1	
Sierra	55,350.2	7,139.4	6,643.5	1,754.2	61,993.7	7,318.8	32,224.2	5,691.9	4,911.1	1,406.5	37,135.3	5,806.2	99,129.0	9,340.3	
Siskyou	3,204.8	1,690.5	129.4	228.1	3,334.2	1,681.3	943.6	1,021.8	--	--	943.6	1,021.8	4,277.9	1,967.5	
Six Rivers	82,229.8	9,449.6	3,483.5	1,373.2	85,713.3	9,530.6	45,581.5	7,550.2	4,177.4	1,771.0	49,758.9	7,720.1	135,472.1	12,117.6	
Stanislaus	48,240.8	6,436.8	3,244.4	1,235.5	51,485.1	6,538.0	13,376.8	3,283.3	544.3	329.5	13,921.1	3,299.6	65,406.3	7,323.5	
Tahoe	68,301.5	7,428.1	1,925.7	1,159.2	70,227.3	7,488.6	1,607.8	996.9	83.2	84.9	1,691.0	1,000.5	71,918.3	7,555.1	
Toiyabe	5,771.1	1,433.3	3,587.9	1,091.5	9,358.9	1,800.0	2,977.8	1,146.8	1,632.8	751.4	4,610.7	1,374.9	13,969.6	2,264.4	
All national forests	806,254.5	16,935.7	56,998.7	4,417.2	863,253.2	16,519.5	274,971.6	13,053.4	36,657.5	3,862.6	311,629.1	12,939.6	1,174,882.3	18,875.4	

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 megagrams was estimated.

Table 108—Aboveground carbon mass of live trees on forest land, by national forest and land status, California, 2006–2015

	Land Status													
	Unreserved forests						Reserved forests							
	Timberland		Other forest		Total		Productive		Other forest		Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand megagrams</i>														
National forests:														
Angeles	328.5	220.8	673.3	234.9	1,001.7	322.4	904.2	481.0	226.5	142.5	1,130.7	500.0	2,132.4	594.9
Cleveland	--	--	74.7	49.9	74.7	49.9	--	--	--	--	--	--	74.7	49.9
Eldorado	27,384.8	3,420.7	316.0	256.9	27,700.8	3,427.0	1,942.4	728.0	391.2	216.5	2,333.5	758.9	30,034.3	3,510.0
Inyo	3,387.3	798.0	1,801.0	348.5	5,188.3	866.8	5,055.3	1,260.6	3,005.8	600.1	8,061.1	1,365.7	13,249.4	1,607.5
Klamath	41,037.9	4,013.5	840.7	261.8	41,878.6	4,021.3	13,433.4	2,498.2	312.7	197.5	13,746.1	2,510.7	55,624.7	4,725.2
Lake Tahoe Basin	2,634.7	879.4	201.2	155.7	2,835.9	893.1	1,553.3	1,319.6	127.7	113.2	1,681.0	1,324.5	4,516.9	1,597.5
Lassen	31,380.8	3,161.9	968.4	334.9	32,349.2	3,176.7	1,266.5	543.7	53.7	60.0	1,320.2	547.0	33,669.4	3,223.4
Los Padres	812.7	419.0	2,256.0	502.5	3,068.7	670.3	3,931.8	2,325.7	2,659.4	774.5	6,591.1	2,461.6	9,659.8	2,551.3
Mendocino	16,197.7	2,272.4	3,577.6	966.1	19,775.3	2,457.4	5,292.0	1,375.1	870.4	382.4	6,162.4	1,423.1	25,937.7	2,834.8
Modoc	12,560.1	1,638.7	2,204.1	320.2	14,764.2	1,670.3	1,469.4	796.6	25.8	28.8	1,495.1	796.6	16,259.3	1,850.6
Plumas	46,235.4	4,213.8	586.0	337.5	46,821.3	4,224.1	1,377.3	1,014.3	--	--	1,377.3	1,014.3	48,198.7	4,344.2
Rogue River	1,474.5	651.6	400.3	375.8	1,874.7	691.7	439.6	513.4	--	--	439.6	513.4	2,314.4	752.4
San Bernardino	1,499.3	584.3	1,045.8	334.5	2,545.1	672.5	863.9	439.9	264.7	157.3	1,128.6	467.2	3,673.7	818.6
Sequoia	6,653.4	1,323.1	357.1	136.0	7,010.5	1,329.9	19,023.1	3,012.2	1,776.0	684.1	20,799.1	3,086.8	27,809.6	3,347.5
Shasta-Trinity	54,788.7	4,323.1	1,927.5	548.0	56,716.2	4,355.6	24,306.5	2,909.5	1,766.3	650.6	26,072.8	2,958.9	82,789.1	5,235.9
Sierra	25,106.8	3,238.4	3,013.5	795.7	28,120.3	3,319.8	14,616.9	2,581.8	2,227.7	638.0	16,844.6	2,633.7	44,964.9	4,236.8
Siskyou	1,453.7	766.8	58.7	103.5	1,512.4	762.7	428.0	463.5	--	--	428.0	463.5	1,940.4	892.4
Six Rivers	37,299.4	4,286.4	1,580.1	622.9	38,879.5	4,323.1	20,675.8	3,424.8	1,894.9	803.3	22,570.6	3,501.8	61,450.2	5,496.6
Stanislaus	21,882.0	2,919.7	1,471.6	560.4	23,353.7	2,965.6	6,067.7	1,489.3	246.9	149.5	6,314.6	1,496.7	29,668.3	3,321.9
Tahoe	30,981.6	3,369.4	873.5	525.8	31,855.1	3,396.8	729.3	452.2	37.7	38.5	767.1	453.8	32,622.1	3,427.0
Toiyabe	2,617.7	650.1	1,627.5	495.1	4,245.2	816.5	1,350.7	520.2	740.7	340.8	2,091.4	623.6	6,336.6	1,027.1
All national forests	365,717.0	7,682.1	25,854.6	2,003.6	391,571.6	7,493.2	124,727.1	5,921.0	16,627.9	1,752.1	141,355.0	5,869.4	532,926.6	8,561.9

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; — = less than 50 megagrams was estimated.

Table 109—Average net volume per acre of live trees on forest land, by national forest and land status, California, 2006–2015

	Land Status													
	Unreserved forests						Reserved forests							
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest land	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>National forests:</i>														
Angeles	1,075.08	670.74	666.07	207.92	761.48	226.67	2,058.97	601.28	368.80	35.24	1,491.32	494.15	992.84	233.11
Cleveland	--	--	702.23	127.10	325.09	219.86	--	--	--	--	--	--	325.09	219.86
Eldorado	5,983.87	428.05	2,135.87	439.75	5,896.55	423.25	3,764.18	763.30	1,100.58	329.66	2,826.98	602.64	5,435.19	388.39
Inyo	2,394.38	302.14	674.66	100.46	1,238.14	145.94	3,437.33	587.17	1,209.35	168.30	2,113.58	288.22	1,638.41	157.00
Klamath	4,831.24	309.21	595.61	137.25	4,368.69	292.43	4,839.13	644.54	848.80	437.41	4,419.61	590.96	4,381.11	263.83
Lake Tahoe Basin	3,917.57	620.90	1,338.15	979.26	3,395.60	605.71	12,771.07	6,182.22	1,351.08	534.39	8,118.22	4,588.66	4,390.87	1,197.99
Lassen	3,761.57	243.49	721.45	166.64	3,450.52	229.50	3,258.21	683.61	531.94	531.94	2,799.29	687.25	3,419.32	221.27
Los Padres	1,927.31	696.37	779.55	134.01	919.72	156.20	5,273.29	2,733.67	880.13	219.80	2,016.12	775.41	1,460.71	393.57
Mendocino	3,962.95	336.66	1,729.96	347.52	3,333.13	279.35	4,081.74	670.25	718.56	262.36	2,890.72	524.57	3,214.71	248.66
Modoc	2,088.52	187.10	406.04	52.85	1,374.29	123.88	3,989.85	1,358.73	623.61	623.61	3,737.11	1,287.99	1,455.54	131.83
Plumas	4,495.54	276.04	939.84	429.26	4,334.05	269.20	11,951.38	439.48	--	--	11,951.38	439.48	4,418.07	273.29
Rogue River	5,192.53	1,415.16	3,496.51	1,966.32	4,740.49	1,207.53	8,401.14	4,506.75	--	--	8,401.14	4,506.75	5,209.09	1,286.42
San Bernardino	1,959.82	529.08	738.13	167.15	1,236.24	260.12	1,862.29	494.82	1,191.77	416.03	1,579.18	348.52	1,330.44	213.08
Sequoia	2,764.67	329.29	298.01	84.01	2,120.22	282.16	4,878.90	510.34	1,172.80	343.06	4,022.40	432.34	3,284.62	295.68
Shasta-Trinity	4,656.36	229.47	1,609.32	263.86	4,441.99	219.07	4,757.91	359.22	2,181.66	370.97	4,474.72	330.59	4,452.22	182.65
Sierra	5,720.35	407.39	1,606.79	266.76	4,786.80	358.64	5,687.67	557.42	1,777.06	429.01	4,405.42	452.04	4,624.66	281.84
Siskyou	4,872.02	1,810.14	2,457.22	2,457.22	4,725.99	1,704.19	8,572.57	8,572.57	--	--	8,572.57	8,572.57	5,338.96	1,535.83
Six Rivers	6,429.11	434.59	2,363.48	668.53	6,079.50	416.14	5,676.17	662.58	1,463.01	536.99	4,770.98	565.04	5,529.94	339.78
Stanislaus	4,664.32	388.93	1,221.21	497.77	4,110.84	357.20	4,857.69	591.12	1,408.65	458.83	4,373.49	559.89	4,166.49	305.70
Tahoe	4,183.99	315.35	2,456.95	948.01	4,122.60	307.07	3,092.11	935.34	493.53	493.53	2,505.41	899.21	4,065.68	298.97
Toiyabe	2,005.57	273.91	1,128.83	281.00	1,521.88	208.68	2,922.71	342.71	1,304.77	522.86	2,001.59	383.71	1,649.85	186.58
All national forests	4,362.45	81.49	924.93	59.56	3,620.96	67.56	4,824.64	191.16	1,234.34	106.00	3,723.22	142.71	3,647.74	61.12

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 megagrams was estimated.

Table 110—Average aboveground biomass per acre of live trees on forest land, by national forest and land status, California, 2006-2015

	Land Status													
	Unreserved forests						Reserved forests							
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest land	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>National forests:</i>														
Angeles	28.67	14.31	17.88	5.01	20.40	5.20	59.73	16.30	29.58	12.31	49.60	13.14	29.66	6.14
Cleveland	--	--	31.62	5.71	14.64	9.90	--	--	--	--	--	--	14.64	9.90
Eldorado	121.14	8.29	60.20	22.16	119.76	8.18	73.25	14.18	27.17	8.15	57.03	11.11	110.33	7.53
Inyo	43.35	6.39	11.23	1.63	21.76	2.84	62.01	10.15	25.18	3.22	40.13	5.02	30.16	2.84
Klamath	101.03	6.13	16.88	3.52	91.84	5.80	102.08	12.99	20.22	9.48	93.47	11.95	92.24	5.26
Lake Tahoe Basin	82.61	13.52	24.86	15.13	70.92	12.85	245.51	118.42	29.37	14.46	157.45	87.60	89.16	23.13
Lassen	77.82	4.98	21.07	5.16	72.01	4.67	67.37	13.56	14.12	14.12	58.40	13.90	71.36	4.51
Los Padres	47.68	16.72	18.41	3.23	21.99	3.78	111.85	59.25	26.39	6.52	48.49	16.94	35.06	8.65
Mendocino	85.93	6.83	48.31	9.30	75.32	5.82	85.39	13.00	25.61	8.65	64.22	10.24	72.35	5.08
Modoc	43.05	3.99	10.24	1.08	29.12	2.60	87.99	29.79	19.00	19.00	82.81	28.19	30.97	2.80
Plumas	93.54	5.55	24.92	12.63	90.42	5.42	238.49	4.41	--	--	238.49	4.41	92.06	5.49
Rogue River	111.91	26.85	83.60	43.56	104.36	23.52	166.70	89.41	--	--	166.70	89.41	112.34	24.74
San Bernardino	44.20	11.76	21.22	4.62	30.59	5.87	47.45	13.96	19.89	6.78	35.82	9.47	32.03	5.00
Sequoia	56.81	7.30	8.62	2.53	44.22	6.10	98.88	10.34	30.71	9.97	83.13	8.82	68.04	6.08
Shasta-Trinity	96.94	4.45	45.06	6.90	93.29	4.23	98.80	6.95	58.14	11.26	94.33	6.39	93.61	3.53
Sierra	114.97	8.04	47.01	7.58	99.55	6.95	104.10	11.02	32.52	6.39	80.63	8.62	91.51	5.45
Siskyou	110.77	38.03	69.49	69.49	108.27	35.73	161.65	161.65	--	--	161.65	161.65	116.78	30.92
Six Rivers	140.87	8.71	63.43	14.62	134.21	8.32	125.54	13.30	42.05	14.23	107.60	11.49	123.04	6.86
Stanislaus	95.53	7.87	33.54	9.83	85.57	7.13	96.21	11.46	23.97	7.74	86.07	11.00	85.68	6.08
Tahoe	87.21	6.23	66.72	25.43	86.48	6.08	70.10	21.03	12.44	12.44	57.08	20.10	85.45	5.93
Toiyabe	41.93	6.08	21.18	5.08	30.49	4.20	61.90	7.92	25.68	8.71	41.28	7.34	33.36	3.70
All national forests	90.89	1.63	23.36	1.47	76.32	1.35	98.85	3.83	29.78	2.49	77.66	2.86	76.67	1.22

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 megagrams was estimated.

Table 111—Average aboveground carbon mass per hectare of live trees on forest land, by national forest and land status, California, 2006–2015

	Land Status														
	Unreserved forests								Reserved forests						
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest land		
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	
<i>Kilograms per hectare</i>															
National forests:															
Angeles	32,139.0	16,037.6	20,041.4	5,613.1	22,863.4	5,831.8	66,945.8	18,269.1	33,158.8	13,801.0	55,598.3	14,729.2	33,240.6	6,886.2	
Cleveland	--	--	35,446.0	6,405.6	16,409.1	11,098.0	--	--	--	--	--	--	--	16,409.1	11,098.0
Eldorado	135,785.3	9,295.6	67,479.5	24,837.9	134,235.2	9,172.1	82,098.6	15,893.6	30,455.5	9,130.8	63,927.6	12,449.7	123,667.9	8,436.1	
Inyo	48,591.3	7,164.7	12,591.0	1,827.9	24,386.9	3,177.7	69,503.7	11,376.2	28,229.0	3,607.0	44,980.5	5,624.5	33,802.7	3,184.9	
Klamath	113,245.3	6,866.1	18,923.7	3,942.9	102,945.0	6,499.1	114,412.7	14,556.5	22,665.5	10,630.0	104,767.0	13,398.2	103,389.3	5,897.8	
Lake Tahoe Basin	92,593.9	15,150.1	27,868.7	16,955.7	79,496.1	14,408.5	275,186.9	132,734.1	32,916.5	16,210.8	176,478.6	98,188.4	99,934.6	25,928.5	
Lassen	87,223.9	5,579.4	23,616.7	5,784.5	80,715.9	5,240.0	75,509.8	15,201.9	15,828.9	15,828.9	65,463.6	15,580.3	79,985.2	5,051.1	
Los Padres	53,444.0	18,746.1	20,639.3	3,622.2	24,645.6	4,237.9	125,373.5	66,409.8	29,575.4	7,304.6	54,347.0	18,991.7	39,300.9	9,699.4	
Mendocino	96,320.2	7,653.1	54,153.3	10,419.8	84,427.0	6,518.7	95,709.7	14,570.8	28,708.2	9,695.1	71,982.1	11,481.5	81,095.9	5,698.7	
Modoc	48,252.0	4,475.4	11,479.3	1,210.5	32,641.7	2,913.6	98,630.8	33,394.2	21,300.5	21,300.5	92,824.6	31,592.5	34,711.2	3,133.1	
Plumas	104,846.2	6,217.8	27,929.0	14,151.4	101,352.9	6,075.0	267,317.9	4,942.9	--	--	267,317.9	4,942.9	103,183.5	6,156.5	
Rogue River	125,431.1	30,091.4	93,708.5	48,829.4	116,976.0	26,361.2	186,845.7	100,213.8	--	--	186,845.7	100,213.8	125,920.1	27,731.0	
San Bernardino	49,541.7	13,184.5	23,787.4	5,178.0	34,287.9	6,575.0	53,188.6	15,644.7	22,297.1	7,594.9	40,145.6	10,617.0	35,897.0	5,606.9	
Sequoia	63,675.8	8,181.2	9,662.6	2,831.0	49,564.0	6,837.7	110,830.5	11,591.2	34,424.4	11,176.6	93,172.6	9,887.8	76,258.5	6,815.0	
Shasta-Trinity	108,655.0	4,982.7	50,510.8	7,731.6	104,564.3	4,745.2	110,744.6	7,785.3	65,165.5	12,617.8	105,734.5	7,160.1	104,930.0	3,955.4	
Sierra	128,869.5	9,013.8	52,688.7	8,500.4	111,580.6	7,793.2	116,686.9	12,348.2	36,453.0	7,162.4	90,379.0	9,661.9	102,567.1	6,108.7	
Siskyou	124,158.6	42,631.8	77,887.2	77,887.2	121,360.4	40,047.6	181,190.8	181,190.8	--	--	181,190.8	181,190.8	130,894.6	34,657.9	
Six Rivers	157,901.2	9,762.1	71,099.1	16,385.6	150,437.0	9,324.4	140,716.1	14,911.4	47,128.5	15,947.1	120,608.9	12,883.1	137,909.6	7,686.4	
Stanislaus	107,082.0	8,815.6	37,598.7	11,013.5	95,912.6	7,988.9	107,838.8	12,844.9	26,869.8	8,669.9	96,471.8	12,327.0	96,031.1	6,816.7	
Tahoe	97,749.7	6,988.3	74,781.0	28,498.1	96,933.3	6,817.3	78,568.6	23,573.5	13,941.6	13,941.6	63,977.5	22,532.0	95,773.3	6,644.1	
Toiyabe	46,999.5	6,816.0	23,744.2	5,690.7	34,169.8	4,704.2	69,386.0	8,875.0	28,781.7	9,765.7	46,269.3	8,228.0	37,397.5	4,150.5	
All national forests	101,876.3	1,824.2	26,186.6	1,642.2	85,549.5	1,509.5	110,796.9	4,291.3	33,377.2	2,786.3	87,046.2	3,200.8	85,941.5	1,364.2	

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 megagrams was estimated.

Table 112—Number of live trees^a with damage on forest land, by species and type of damage, California, 2006–2015

Species	Total number of live trees ^a		Number of live trees with damage ^b		Animal		Bark beetle		Cankers	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	Thousand trees									
Softwoods:										
Bigcone Douglas-fir	960.8	329.2	308.4	150.5	--	--	--	--	--	--
Bishop pine	3,732.4	1,741.3	1,692.8	1,087.1	96.4	86.9	--	--	85.6	82.3
Brewer spruce	1,895.3	1,130.0	149.6	82.9	--	--	--	--	--	--
California juniper	26,007.1	4,659.8	3,470.3	720.9	73.1	52.9	--	--	--	--
California red fir	305,222.9	28,033.3	146,059.2	17,766.0	1,207.7	716.9	4,780.8	1,195.8	11,591.6	3,551.1
California torreya	20,111.4	5,358.6	3,884.9	1,440.0	--	--	--	--	--	--
Coulter pine	1,397.6	479.5	669.3	275.0	--	--	--	--	--	--
Douglas-fir	1,235,541.4	45,749.5	207,053.6	11,067.7	4,068.3	2,153.8	584.8	167.7	35,508.8	4,730.3
Engelmann spruce	99.9	111.6	66.6	74.4	--	--	--	--	--	--
Foxtail pine	4,777.0	1,487.2	2,868.1	842.4	5.4	5.9	--	--	--	--
Giant sequoia	568.8	419.5	36.6	35.6	--	--	--	--	--	--
Grand fir	8,286.8	2,419.6	1,367.1	640.1	35.9	37.8	--	--	--	--
Grey pine	42,681.3	4,307.8	9,625.5	1,659.6	172.7	65.2	125.3	69.1	233.7	115.2
Bristlecone pine	2,666.6	1,381.4	2,220.9	1,174.9	--	--	--	--	--	--
Incense cedar	600,179.1	35,660.1	107,142.6	9,461.3	883.7	510.8	68.7	71.2	1,095.8	581.2
Jeffrey pine	258,252.2	19,825.8	60,160.4	5,624.3	339.5	225.7	753.0	190.8	750.1	530.9
Knobcone pine	56,589.3	17,253.7	9,143.4	2,108.3	945.5	625.6	35.9	36.2	1,533.2	1,070.2
Limber pine	4,100.2	1,714.0	1,956.3	805.5	--	--	--	--	--	--
Lodgepole pine	324,603.6	33,594.2	135,050.2	16,287.4	1,212.9	515.3	2,833.5	1,074.1	18,812.6	8,974.8
Monterey pine	2,858.8	2,141.8	1,853.9	1,491.1	--	--	--	--	627.0	506.0
Mountain hemlock	58,294.8	11,638.4	15,512.6	3,978.3	120.0	97.6	203.7	165.5	213.7	122.7
Noble fir	241.8	140.9	79.0	58.6	--	--	--	--	--	--
Pacific silver fir	93.2	174.4	23.3	43.6	11.7	21.8	--	--	--	--
Pacific yew	16,908.4	6,388.4	1,349.2	595.3	67.4	70.2	--	--	--	--
Ponderosa pine	586,501.9	29,251.9	116,159.5	10,779.3	658.5	185.7	2,915.6	447.7	8,682.2	2,647.4
Port-Orford cedar	9,086.4	3,337.5	1,106.1	760.2	11.8	8.7	--	--	3.9	7.2
Redwood	355,622.0	32,438.7	59,591.3	6,264.0	5,481.8	1,154.8	--	--	628.2	520.9
Sargent's cypress	22,007.6	13,753.5	2,283.2	1,923.4	--	--	--	--	--	--
Shasta red fir	61,389.5	15,838.1	18,416.8	8,496.3	33.0	36.7	--	--	2,330.0	990.0
Singleleaf pinyon	136,386.9	13,950.1	44,936.1	5,417.2	648.0	263.6	1,424.5	455.8	96.4	79.0
Sitka spruce	6,436.1	2,431.7	1,170.2	659.0	643.8	602.4	--	--	127.7	70.5
Subalpine fir	223.7	284.3	--	--	--	--	--	--	--	--
Sugar pine	128,872.6	10,832.4	29,583.5	3,667.5	124.2	66.9	297.6	120.8	2,305.7	873.2
Utah juniper	6,421.6	1,331.5	2,298.5	580.7	38.7	38.6	--	--	--	--
Washeoe pine	3,270.3	2,977.7	310.9	236.6	74.6	77.1	--	--	6.0	6.1
Western hemlock	18,779.3	6,883.9	2,687.4	938.9	83.3	57.0	--	--	703.6	513.6
Western juniper	136,980.5	11,642.8	22,045.7	2,971.8	1,051.3	267.4	576.4	496.2	1,170.7	1,018.7
Western larch	34.8	38.8	34.8	38.8	--	--	--	--	--	--
Western redcedar	65.1	63.7	58.5	63.3	--	--	--	--	--	--
Western white pine	56,764.4	7,402.2	19,416.4	4,097.0	236.5	107.2	183.6	79.0	4,702.0	2,747.7
White fir	1,113,027.0	47,488.0	299,512.4	18,177.3	1,707.3	777.3	5,619.9	1,075.8	17,751.7	3,036.2
Whitebark pine	112,763.5	19,600.9	38,400.8	8,351.3	76.8	57.8	183.7	140.3	501.1	472.7
Total	5,735,371.7	109,188.1	1,369,922.5	40,933.3	20,109.9	3,012.3	20,587.0	2,233.9	109,461.5	12,192.9
Hardwoods:										
Ash spp.	33.7	35.1	--	--	--	--	--	--	--	--
Bigleaf maple	96,827.7	13,524.9	21,857.7	4,763.6	522.2	441.3	--	--	--	--
Bitter cherry	38,894.1	10,365.4	4,163.4	2,062.0	--	--	--	--	--	--
Black cottonwood	4,821.6	2,645.4	700.1	493.4	--	--	--	--	--	--
Blue oak	274,412.8	20,300.0	50,499.1	4,280.4	394.6	174.5	--	--	101.2	64.7
Boxelder	1,179.9	599.3	305.5	121.0	--	--	--	--	--	--
Buckeye spp.	429.4	443.4	--	--	--	--	--	--	--	--
California black oak	473,299.2	35,078.5	99,305.3	7,975.8	212.2	167.2	--	--	379.9	126.6
California buckeye	89,021.8	15,200.6	21,422.9	5,761.5	316.4	405.8	--	--	--	--
California live oak	137,555.3	19,682.5	38,755.8	5,050.0	587.7	280.2	--	--	274.6	132.4
California sycamore	1,742.0	679.0	532.0	237.3	--	--	--	--	--	--
California white oak	14,327.5	2,648.6	4,419.5	1,383.8	99.3	59.4	--	--	121.1	69.8
California-laurel	318,798.6	36,405.0	47,648.2	7,083.5	42.8	41.2	--	--	174.2	141.1
Canyon live oak	1,127,395.0	75,231.0	186,329.0	21,012.6	2,400.4	1,558.3	--	--	7,232.2	3,593.0
Chinkapin oak	125.8	90.4	--	--	--	--	--	--	--	--
Chokeberry	9,859.6	7,413.0	--	--	--	--	--	--	--	--
Engelmann oak	501.6	270.1	416.1	227.4	--	--	--	--	--	--
Fremont cottonwood	2,184.2	1,212.7	366.7	255.8	--	--	--	--	--	--
Giant chinkapin	47,322.1	13,158.9	4,508.6	1,359.7	69.6	50.5	--	--	--	--
Interior live oak	524,767.1	50,995.9	87,352.7	10,658.1	831.0	507.1	--	--	803.5	542.5
California black walnut	36.7	37.5	--	--	--	--	--	--	--	--
Oregon ash	17,820.6	8,596.9	2,710.8	1,268.8	--	--	--	--	--	--
Oregon white oak	185,162.3	24,228.9	52,218.3	9,432.8	6.8	6.7	--	--	1,968.8	1,096.6
Pacific dogwood	131,929.6	18,021.7	10,541.7	3,417.3	88.9	83.2	--	--	--	--
Pacific madrone	208,654.1	19,042.9	50,832.5	6,563.1	167.7	125.4	--	--	1,160.0	347.7
Quaking aspen	79,021.1	22,338.8	14,261.4	4,051.3	271.3	247.5	--	--	110.1	85.1
Red alder	64,455.1	17,111.1	4,038.9	1,078.9	88.9	83.2	--	--	6.0	6.0
Screwbean mesquite	68.0	92.8	--	--	--	--	--	--	--	--
Tanoak	1,263,376.1	73,255.7	156,572.0	13,888.2	595.3	405.3	--	--	7,440.9	2,385.0
Tasmanian bluegum	127.9	113.2	--	--	--	--	--	--	--	--
Mesquite	1,379.5	856.3	364.8	367.0	--	--	--	--	--	--
White alder	17,242.8	4,943.0	4,782.4	1,516.3	86.5	79.4	--	--	--	--
Total	5,201,428.5	143,769.7	868,476.2	34,118.0	7,440.2	2,071.9	--	--	19,772.3	4,486.5
Total, all species	10,936,800.3	173,880.3	2,238,398.7	51,666.3	27,550.0	3,651.8	20,587.0	2,233.9	129,233.9	12,989.2

Note: Data subject to sampling error; SE = Standard error; -- less than 500 trees were Tree damage protocols changed from a PNWRS regional protocol collected through 2012 to a national protocol based on the Pest Trend Impact Plot System (PTIPS) list in 2013.

Summary estimates presented in this table are the combined and cross-referenced result from each protocol as determined by the year of measurement. See FiADB user guide ver. 7.0 Appendix J and Appendix K for detailed protocols used during each time period.

^aIncludes live trees (ge)1" d.b.h.

^bNumber of live trees (ge)1" d.b.h. with one or more types of damage recorded.

Table 112—Number of live trees¹ with damage on forest land, by species and type of damage, California, 2006–2015 (Continued)

Species	Type of damage							
	Defoliators		Dwarf mistletoe		Foliation diseases		Stem decay	
	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand trees</i>								
Softwoods:								
Bigcone Douglas-fir	--	--	--	--	--	--	6.5	6.4
Bishop pine	--	--	289.1	260.6	--	--	143.9	103.8
Brewer spruce	--	--	--	--	--	--	11.8	8.9
California juniper	--	--	--	--	155.2	88.7	85.4	57.9
California red fir	137.5	76.2	68,795.5	14,411.2	4,894.6	1,256.1	625.3	124.9
California torreya	--	--	--	--	--	--	1,279.0	681.1
Coulter pine	--	--	116.2	112.8	--	--	--	--
Douglas-fir	928.9	637.0	4,624.9	1,092.3	701.6	205.8	16,220.6	1,474.6
Engelmann spruce	--	--	33.3	37.2	--	--	--	--
Foxtail pine	--	--	--	--	--	--	250.4	116.9
Grand fir	44.5	42.7	--	--	38.2	38.6	59.0	40.3
Grey pine	--	--	5,431.7	1,451.4	114.6	115.7	317.3	125.7
Bristlecone pine	--	--	6.3	6.5	--	--	32.4	30.3
Incense cedar	419.9	437.2	--	--	11,090.1	2,737.4	1,502.2	241.6
Jeffrey pine	167.8	130.3	17,953.3	3,959.0	604.8	580.4	647.6	209.8
Knobcone pine	--	--	799.6	503.4	--	--	531.1	142.6
Limber pine	--	--	--	--	--	--	193.0	99.1
Lodgepole pine	141.3	115.1	19,063.2	5,203.6	341.2	139.3	3,901.5	1,075.4
Monterey pine	--	--	185.0	149.3	--	--	--	--
Mountain hemlock	--	--	4,261.6	2,894.9	59.8	42.9	255.6	85.8
Pacific yew	--	--	--	--	--	--	270.7	137.1
Ponderosa pine	2,369.9	1,286.1	16,844.0	3,931.2	354.9	179.8	1,957.7	786.4
Port-Orford cedar	--	--	--	--	--	--	25.3	28.4
Redwood	8.6	7.6	105.6	61.6	57.8	40.0	2,900.8	807.8
Sargent's cypress	--	--	1,867.8	1,909.2	54.9	47.2	--	--
Shasta red fir	--	--	10,838.1	7,641.0	--	--	119.7	73.5
Singleleaf pinyon	66.3	51.1	11,027.5	2,538.3	47.4	37.7	507.2	186.2
Sitka spruce	57.2	57.8	--	--	--	--	--	--
Sugar pine	--	--	3,014.4	2,071.9	65.5	44.6	694.6	135.9
Utah juniper	--	--	--	--	5.9	6.2	33.2	24.8
Washeoe pine	--	--	--	--	--	--	6.0	6.1
Western hemlock	--	--	114.6	115.7	--	--	50.6	39.1
Western juniper	109.1	63.4	--	--	1,250.0	500.1	2,765.5	672.1
Western white pine	5.5	6.1	1,940.0	1,477.7	88.9	56.4	465.9	100.6
White fir	2,241.8	1,266.2	49,904.6	6,265.8	1,485.8	957.7	3,354.5	376.1
Whitebark pine	1,377.0	1,245.7	--	--	43.0	40.5	2,663.8	1,113.7
Total	8,075.3	2,684.2	217,216.3	20,264.9	21,454.2	3,325.8	41,878.3	2,674.7
Hardwoods:								
Bigleaf maple	361.6	230.4	--	--	42.7	36.8	3,075.5	923.0
Black cottonwood	--	--	--	--	--	--	68.7	71.2
Blue oak	4,548.8	1,480.4	364.8	119.9	3,386.4	1,112.7	12,459.3	1,420.3
Boxelder	--	--	--	--	--	--	212.4	105.0
California black oak	7,507.7	1,918.6	713.2	346.7	599.6	229.7	20,296.8	1,876.9
California buckeye	--	--	--	--	524.4	321.8	5,716.9	1,110.2
California live oak	671.3	368.1	8.1	7.4	1,187.5	608.8	15,480.6	2,041.9
California sycamore	--	--	--	--	7.8	7.1	184.8	102.7
California white oak	1,008.8	897.8	62.5	56.7	568.6	293.2	492.7	186.1
California-laurel	3,293.4	2,309.1	--	--	5,393.4	2,346.0	13,498.1	2,956.8
Canyon live oak	5,768.9	2,545.2	1,193.2	652.7	207.6	129.9	38,112.0	4,030.4
Engelmann oak	--	--	--	--	--	--	6.0	6.0
Fremont cottonwood	--	--	--	--	--	--	12.5	9.0
Giant chinkapin	--	--	--	--	--	--	834.2	487.9
Interior live oak	6,910.3	3,958.6	2,573.9	2,172.1	2,699.7	1,265.1	21,508.0	3,121.4
Oregon ash	--	--	--	--	--	--	201.3	105.2
Oregon white oak	6,135.7	3,275.9	655.1	537.6	201.9	123.5	6,211.1	2,091.1
Pacific dogwood	--	--	--	--	--	--	533.9	193.7
Pacific madrone	7,513.5	4,803.7	--	--	3,752.5	1,934.9	11,147.6	1,266.6
Quaking aspen	--	--	--	--	74.6	75.7	114.3	65.6
Red alder	1,124.5	634.4	--	--	--	--	532.4	177.0
Tanoak	14,179.5	7,653.9	--	--	276.6	104.3	38,046.3	4,040.3
White alder	446.6	331.1	--	--	--	--	228.8	90.9
Total	59,740.2	11,962.3	5,570.9	2,435.0	18,923.2	3,582.0	189,132.0	8,661.9
Total, all species	67,815.5	12,344.4	222,787.2	20,405.8	40,377.4	4,877.7	231,010.4	9,105.6

Note: Data subject to sampling error; SE = Standard error; -- = less than 500 trees were estimated. Tree damage protocols changed from a PNWRS regional protocol collected through 2012 to a national protocol based on the Pest Trend Impact Plot System (PTIPS) list in 2013. Summary estimates presented in this table are the combined and cross-referenced result from each protocol as determined by the year of measurement. See FIADB user guide ver. 7.0 Appendix I and Appendix K for detailed protocols used during each time period.

¹Number of live trees (ge)¹ d.b.h. with one or more types of damage recorded.

Table 112—Number of live trees^a with damage on forest land, by species and type of damage, California, 2006-2015 (Continued)

Species	Type of damage							
	Other insects		Physical injury and defects		Root disease		Weather	
	Total	SE	Total	SE	Total	SE	Total	SE
Thousand trees								
Softwoods:								
Bigcone Douglas-fir	5.8	6.0	308.4	150.5	--	--	--	--
Bishop pine	--	--	1,444.1	1,042.6	--	--	--	--
Brewer spruce	--	--	102.8	67.1	--	--	40.6	42.3
California juniper	--	--	3,245.5	702.0	--	--	--	--
California red fir	220.3	124.2	54,792.9	5,835.4	51,801.8	8,882.5	1,775.6	1,340.5
California torreya	--	--	3,132.6	1,322.2	626.5	508.3	33.7	35.1
Coulter pine	--	--	552.9	249.7	--	--	--	--
Douglas-fir	775.7	548.8	142,842.2	8,120.4	14,527.1	4,553.7	581.9	357.6
Engelmann spruce	--	--	66.6	74.4	--	--	--	--
Foxtail pine	--	--	2,835.5	835.9	--	--	11.8	8.7
Giant sequoia	--	--	36.6	35.6	--	--	--	--
Grand fir	--	--	1,234.6	636.4	7.4	6.9	--	--
Grey pine	43.7	38.4	4,599.9	962.9	55.3	44.0	9.4	8.0
Bristlecone pine	--	--	2,220.9	1,174.9	--	--	--	--
Incense cedar	54.6	41.4	80,451.3	7,847.8	16,928.9	4,465.8	680.0	456.4
Jeffrey pine	669.3	503.2	36,416.9	3,131.1	4,656.2	1,488.4	1,755.6	1,633.2
Knobcone pine	54.2	46.4	6,131.9	1,318.1	530.3	360.1	103.1	106.8
Limber pine	--	--	1,874.5	759.0	--	--	6.8	6.9
Lodgepole pine	11.8	12.9	98,636.2	11,746.0	9,560.8	3,332.8	4,044.6	1,903.1
Monterey pine	--	--	1,165.3	935.3	--	--	--	--
Mountain hemlock	59.4	43.8	10,869.6	2,567.6	1,211.6	697.4	1,575.2	807.4
Noble fir	--	--	79.0	58.6	--	--	--	--
Pacific silver fir	--	--	11.7	21.8	--	--	--	--
Pacific yew	--	--	1,224.8	580.8	--	--	--	--
Ponderosa pine	1,387.6	791.0	70,559.6	6,091.5	21,567.1	7,320.6	611.9	209.6
Port-Orford cedar	--	--	1,100.1	760.1	--	--	--	--
Redwood	--	--	53,169.2	5,895.0	336.8	121.2	1,180.0	1,039.3
Sargent's cypress	--	--	360.5	208.8	--	--	--	--
Shasta red fir	--	--	8,452.8	3,243.9	1,821.0	1,692.6	6,515.3	6,331.1
Singleleaf pinyon	1,871.3	964.3	30,318.6	4,023.4	5,180.3	2,429.9	57.4	42.2
Sitka spruce	--	--	896.4	573.3	--	--	6.3	6.4
Sugar pine	43.1	36.8	22,260.9	2,781.8	2,889.8	943.1	113.6	57.9
Utah juniper	--	--	2,214.5	578.4	45.2	41.2	6.1	6.2
Washoe pine	--	--	304.9	236.2	--	--	--	--
Western hemlock	--	--	1,901.1	763.1	35.9	37.8	--	--
Western juniper	38.5	38.8	17,260.7	2,559.4	659.9	547.8	105.0	89.5
Western larch	--	--	34.8	38.8	--	--	--	--
Western redcedar	--	--	58.5	63.3	--	--	--	--
Western white pine	41.5	41.7	10,758.1	1,878.9	764.5	322.2	2,080.6	1,434.0
White fir	830.4	269.4	153,060.6	8,787.9	115,063.4	14,409.5	6,376.9	2,372.7
Whitebark pine	--	--	34,753.8	7,719.3	77.9	55.8	2,442.5	2,015.1
Total	6,107.2	1,524.9	861,908.6	24,572.1	248,347.5	22,364.4	30,114.0	10,233.5
Hardwoods:								
Bigleaf maple	34.4	35.6	17,817.3	4,617.3	892.4	476.0	140.2	94.1
Bitter cherry	--	--	4,163.1	2,061.9	--	--	--	--
Black cottonwood	41.2	44.6	658.9	486.8	--	--	--	--
Blue oak	1,202.8	841.3	34,347.6	3,458.7	1,845.3	422.2	--	--
Boxelder	--	--	222.8	93.3	--	--	--	--
California black oak	406.6	203.2	74,820.0	6,810.1	6,163.6	2,560.0	752.7	534.3
California buckeye	--	--	18,072.6	5,626.2	147.7	90.6	--	--
California live oak	6.0	6.2	26,665.7	4,436.3	788.5	485.2	--	--
California sycamore	--	--	458.5	223.3	--	--	--	--
California white oak	111.0	84.0	2,966.7	1,038.9	49.5	42.9	--	--
California-laurel	--	--	32,361.2	5,615.7	2,140.5	759.3	155.4	98.0
Canyon live oak	1,135.6	637.4	144,848.5	19,725.9	5,269.7	1,030.4	382.7	345.5
Engelmann oak	--	--	410.0	227.3	--	--	--	--
Fremont cottonwood	--	--	347.8	255.0	--	--	12.9	13.1
Giant chinkapin	--	--	4,082.6	1,312.9	104.1	61.7	48.7	43.9
Interior live oak	42.6	42.0	62,843.6	8,563.7	2,636.4	1,390.6	73.1	52.5
Oregon ash	--	--	2,510.7	1,264.6	38.7	38.6	--	--
Oregon white oak	624.5	467.1	39,493.5	8,216.9	809.7	355.9	40.8	39.9
Pacific dogwood	--	--	10,117.0	3,411.4	48.2	43.4	--	--
Pacific madrone	2,069.4	1,706.7	30,600.1	3,339.5	3,541.3	1,007.3	598.9	528.3
Quaking aspen	--	--	13,070.5	3,852.0	68.2	51.4	825.3	598.1
Red alder	50.3	44.1	2,562.7	790.1	--	--	35.9	37.8
Tanoak	72.2	52.3	112,362.6	9,731.4	6,657.4	1,133.0	1,938.0	1,426.4
Mesquite	--	--	364.8	367.0	--	--	--	--
White alder	--	--	4,232.0	1,459.2	45.5	39.9	40.0	39.4
Total	5,831.9	2,087.6	643,200.9	29,308.8	31,246.7	3,921.2	5,044.7	2,013.9
Total, all species	11,939.1	2,582.4	1,505,109.5	37,453.7	279,594.2	22,717.1	35,158.7	10,482.4

Note: Data subject to sampling error; SE = Standard error; -- less than 500 trees were estimated. Tree damage protocols changed from a PNWRS regional protocol collected through 2012 to a national protocol based on the Pest Trend Impact Plot System (PTIPS) list in 2013. Summary estimates presented in this table are the combined and cross-referenced result from each protocol as determined by the year of measurement. See FiADB user guide ver. 7.0 Appendix J and Appendix K for detailed protocols used during each time period.

^aNumber of live trees (ge)1" d.b.h. with one or more types of damage recorded.

Table 113—Gross volume of live trees with damage on forest land, by species and type of damage, California, 2006-2015

Species	Type of damage											
	Total gross volume of live trees		Gross volume of live trees with damage ^a		Animal		Bark beetle		Cankers		Total	SE
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE		
Thousand cubic feet												
Softwoods:												
Bigcone Douglas-fir	47,644.6	15,958.3	21,565.7	8,193.1	--	--	--	--	--	--	--	--
Bishop pine	111,292.1	45,760.4	41,609.7	21,321.4	1,446.8	1,304.4	--	--	392.6	377.4		
Brewer spruce	16,017.5	9,461.0	4,950.8	2,790.5	--	--	--	--	--	--	--	--
California juniper	82,111.6	13,636.7	21,617.8	4,341.9	569.1	446.5	--	--	--	--	--	--
California red fir	6,347,722.5	496,934.1	4,055,508.2	355,111.4	3,070.3	1,405.6	114,926.0	38,220.8	147,267.5	64,071.8		
California torreya	16,250.0	4,977.8	8,461.5	2,882.2	--	--	--	--	--	--	--	--
Coulter pine	43,291.6	15,201.1	23,339.5	8,780.9	--	--	--	--	--	--	--	--
Douglas-fir	23,984,791.6	760,031.5	6,907,078.9	316,001.4	66,526.0	18,065.8	28,733.0	8,530.1	522,377.0	61,665.4		
Engelmann spruce	704.3	786.6	652.8	729.0	--	--	--	--	--	--	--	--
Foxtail pine	273,346.6	79,255.4	191,240.2	59,422.7	503.2	546.1	--	--	--	--	--	--
Giant sequoia	63,986.4	57,001.7	11,371.3	11,902.6	--	--	--	--	--	--	--	--
Grand fir	185,895.0	40,925.5	36,238.5	10,187.3	393.6	415.2	--	--	--	--	--	--
Grey pine	684,006.2	53,742.1	191,820.3	21,935.3	14,083.7	4,825.7	5,630.7	3,450.5	4,628.5	2,774.7		
Bristlecone pine	79,606.5	41,113.9	72,615.4	37,535.2	--	--	--	--	--	--	--	--
Incense cedar	4,431,908.6	208,690.5	1,592,668.3	106,888.0	11,329.5	4,392.3	612.9	635.1	8,468.6	3,520.5		
Jeffrey pine	4,938,342.8	258,745.4	1,925,313.7	121,687.1	10,793.8	5,197.8	33,397.7	9,763.5	19,203.8	7,886.8		
Knobcone pine	183,987.8	32,998.9	74,991.2	13,515.0	1,943.0	1,846.8	1,135.2	1,144.8	1,434.5	871.9		
Limber pine	99,432.1	37,821.4	70,620.0	30,143.4	--	--	--	--	--	--	--	--
Lodgepole pine	4,115,752.7	290,820.1	2,177,210.6	167,455.1	26,559.7	8,629.4	49,236.9	11,475.4	110,766.8	25,523.0		
Monterey pine	89,605.4	56,400.5	41,987.0	31,694.8	--	--	--	--	25,179.8	20,323.0		
Mountain hemlock	720,050.5	133,231.9	281,779.2	56,453.7	6,713.5	4,680.8	8,467.1	6,014.6	3,304.1	3,128.3		
Noble fir	14,316.5	13,707.4	5,877.8	6,072.3	--	--	--	--	--	--	--	--
Pacific silver fir	2,122.3	3,969.0	353.9	661.9	84.7	158.4	--	--	--	--	--	--
Pacific yew	8,695.0	2,533.8	3,220.5	1,083.6	157.1	163.6	--	--	--	--	--	--
Ponderosa pine	9,388,081.2	370,502.7	2,775,225.3	149,469.9	30,568.7	11,156.0	102,935.3	16,382.9	51,580.8	10,609.8		
Port-Orford cedar	175,888.0	74,553.0	99,692.9	52,962.0	3,072.0	2,283.3	--	--	994.2	1,859.4		
Redwood	9,020,868.7	906,822.9	2,832,007.1	444,368.2	103,916.5	22,828.5	--	--	40,797.3	31,615.8		
Sargent's cypress	7,971.5	4,264.3	2,063.5	1,270.6	--	--	--	--	--	--	--	--
Shasta red fir	983,650.3	222,486.6	317,164.9	84,116.9	783.3	871.8	--	--	48,085.0	29,796.1		
Singleleaf pinyon	688,900.0	61,774.4	266,041.0	29,083.0	11,227.9	6,745.3	13,552.6	4,645.5	354.3	356.5		
Sitka spruce	287,135.9	100,289.2	36,839.9	14,993.6	245.6	229.8	--	--	7,396.4	4,948.5		
Subalpine fir	2,310.5	2,370.4	--	--	--	--	--	--	--	--	--	--
Sugar pine	4,208,264.9	232,291.6	1,421,697.1	119,827.6	1,430.3	1,117.6	11,021.4	6,618.4	67,566.1	24,115.5		
Utah juniper	60,722.6	13,156.8	29,546.1	7,501.9	81.2	80.9	--	--	--	--	--	--
Washeoe pine	33,467.0	23,796.4	18,577.7	16,354.3	4,049.5	4,181.3	--	--	329.2	337.8		
Western hemlock	209,749.8	66,686.8	80,167.0	26,065.1	7,298.5	6,131.6	--	--	5,484.4	3,678.3		
Western juniper	615,446.4	42,328.7	207,682.7	17,983.1	12,241.6	3,307.2	647.5	670.1	1,328.3	626.7		
Western larch	285.0	317.3	285.0	317.3	--	--	--	--	--	--	--	--
Western redcedar	7,056.0	6,798.2	6,233.5	6,749.6	--	--	--	--	--	--	--	--
Western white pine	1,090,581.9	103,005.2	497,288.7	53,307.3	3,300.6	1,735.0	6,576.9	2,591.2	4,644.3	1,907.9		
White fir	14,250,341.3	570,774.3	6,357,338.1	353,293.7	9,073.1	3,583.9	150,113.1	23,120.1	283,234.0	57,521.6		
Whitebark pine	163,785.1	26,443.1	98,182.1	18,581.5	1,413.0	1,391.8	1,131.0	839.3	22.8	23.3		
Total	87,742,164.2	1,448,527.6	32,812,611.4	807,737.9	332,875.7	37,575.1	528,117.3	53,715.6	1,354,840.5	123,328.1		
Hardwoods:												
Ash spp.	65.8	68.5	--	--	--	--	--	--	--	--	--	--
Bigleaf maple	420,819.0	43,278.8	140,284.1	21,485.4	2,909.4	1,766.2	--	--	--	--	--	--
Black cottonwood	61,306.4	23,593.1	20,829.0	12,735.8	--	--	--	--	--	--	--	--
Blue oak	1,546,794.9	79,019.1	475,514.1	35,710.0	6,797.4	3,483.6	--	--	2,613.6	2,201.4		
Boxelder	14,646.0	9,415.2	2,388.4	1,362.9	--	--	--	--	--	--	--	--
California black oak	3,633,277.2	164,234.6	1,345,501.0	75,449.6	6,496.6	5,714.5	--	--	18,346.9	8,088.0		
California buckeye	73,081.1	12,202.2	32,313.1	7,139.7	--	--	--	--	--	--	--	--
California live oak	1,326,850.3	112,616.9	514,950.9	55,434.9	7,954.3	3,672.3	--	--	6,931.3	3,954.8		
California sycamore	43,379.5	12,389.6	17,901.1	6,386.9	--	--	--	--	--	--	--	--
California white oak	409,374.2	62,450.2	146,531.5	31,417.9	11,242.5	6,313.9	--	--	933.0	549.0		
California-laurel	827,683.3	82,542.3	287,015.5	41,369.8	177.7	170.9	--	--	2,880.0	1,908.3		
Canyon live oak	3,393,248.1	177,602.2	1,167,826.4	79,926.4	10,186.5	4,887.6	--	--	21,392.1	9,902.9		
Chinkapin oak	3,346.4	3,003.7	--	--	--	--	--	--	--	--	--	--
Chokecherry	65.7	61.5	--	--	--	--	--	--	--	--	--	--
Engelmann oak	9,821.1	5,274.6	7,809.4	4,209.2	--	--	--	--	--	--	--	--
Fremont cottonwood	45,413.8	26,698.3	11,050.0	6,116.5	--	--	--	--	--	--	--	--
Giant chinkapin	192,006.6	42,897.2	58,504.1	15,408.7	459.6	336.4	--	--	--	--	--	--
Interior live oak	675,378.8	61,700.0	246,841.8	28,206.0	671.6	306.3	--	--	975.2	413.3		
California black walnut	353.1	360.2	--	--	--	--	--	--	--	--	--	--
Oregon ash	13,058.8	4,130.9	6,841.7	3,350.6	--	--	--	--	--	--	--	--
Oregon white oak	651,968.7	69,083.1	202,543.1	28,594.3	1,198.6	1,178.1	--	--	3,357.4	1,488.4		
Pacific dogwood	10,284.1	2,916.5	3,557.6	1,498.6	1,222.4	1,143.7	--	--	--	--	--	--
Pacific madrone	1,859,783.4	121,757.0	947,579.3	72,633.4	2,036.0	1,304.0	--	--	28,959.0	8,285.6		
Quaking aspen	64,330.4	21,112.2	18,444.2	5,951.5	1,930.0	1,760.7	--	--	3,022.1	3,250.6		
Red alder	471,530.4	79,133.5	54,595.5	11,775.5	850.4	795.6	--	--	816.1	823.0		
Screwbean mesquite	117.0	159.6	--	--	--	--	--	--	--	--	--	--
Tanoak	3,711,088.8	229,936.3	1,217,433.0	97,445.0	6,508.9	3,507.9	--	--	29,115.7	8,459.8		
Tasmanian bluegum	3,587.3	2,173.7	--	--	--	--	--	--	--	--	--	--
Mesquite	8,595.7	5,082.5	3,322.9	3,236.9	--	--	--	--	--	--	--	--
White alder	161,551.1	27,327.9	40,210.7	10,161.3	201.2	184.8	--	--	--	--	--	--
Total	19,710,460.2	450,604.9	6,979,120.0	211,027.5	62,651.4	12,127.5	--	--	119,342.3	18,637.7		
Total, all species	107,452,624.4	1,483,599.4	39,791,731.5	824,507.5	395,527.1	39,515.1	528,117.3	53,715.6	1,474,182.8	125,685.1		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 cubic feet was estimated. Tree damage protocols changed from a PNWRS regional protocol collected through 2012 to a national protocol based on the Pest Trend Impact Plot System (PTIPS) list in 2013. Summary estimates presented in this table are the combined and cross-referenced result from each protocol as determined by the year of measurement. See FiADB user guide ver. 7.0 Appendix J and Appendix K for detailed protocols used during each time period.

* Includes gross volume of live trees >= 5 inches diameter at breast height with one or more damages recorded. Gross volume includes rotten, missing, and form cut volume.

Table 113—Gross volume of live trees with damage on forest land, by species and type of damage, California, 2006-2015 (Continued)

Species	Type of damage							
	Defoliators		Dwarf mistletoe		Foliation diseases		Stem decay	
	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand cubic feet</i>								
Softwoods:								
Bigcone Douglas-fir	--	--	--	--	--	--	2,310.9	2,261.8
Bishop pine	--	--	2,018.9	1,820.1	--	--	5,791.2	4,512.6
Brewer spruce	--	--	--	--	--	--	1,578.8	1,318.9
California juniper	--	--	--	--	1,046.7	492.4	295.4	220.6
	7,391.2	7,291.7	1,915,354.2	274,225.3	372,137.0	89,823.2	165,499.6	35,741.0
California red fir								
California torreya	--	--	--	--	--	--	4,960.9	2,369.4
Coulter pine	--	--	1,419.3	1,021.8	--	--	--	--
	27,995.9	16,354.9	434,446.4	98,579.1	44,827.9	20,469.5	1,747,243.0	134,258.4
Douglas-fir								
Engelmann spruce	--	--	72.8	81.3	--	--	--	--
Foxtail pine	--	--	--	--	--	--	27,225.2	16,701.0
Grand fir	91.9	88.0	--	--	125.4	126.7	3,385.7	1,852.0
Grey pine	--	--	58,946.1	11,855.0	1,355.3	1,369.1	16,256.1	5,532.6
Bristlecone pine	--	--	746.8	772.9	--	--	4,294.9	4,012.0
Incense cedar	--	--	--	--	110,634.1	28,118.8	150,443.8	24,429.2
Jeffrey pine	2,726.1	2,036.9	337,352.4	54,824.2	28,407.8	24,046.0	82,117.9	21,993.9
Knobcone pine	--	--	3,355.2	1,648.9	--	--	12,600.2	3,980.1
Limber pine	--	--	--	--	--	--	11,300.1	5,103.8
Lodgepole pine	2,423.8	1,940.1	228,169.6	60,784.0	8,887.6	4,097.0	160,171.5	28,466.2
Monterey pine	--	--	6,915.8	5,581.9	--	--	--	--
Mountain hemlock	--	--	53,097.4	30,671.0	4,397.0	2,834.0	27,555.9	9,112.6
Pacific yew	--	--	--	--	--	--	1,331.3	668.8
Ponderosa pine	21,869.6	14,874.3	289,076.4	45,766.5	13,458.5	6,442.5	129,369.4	21,844.0
Port-Orford cedar	--	--	--	--	--	--	6,420.6	6,050.9
Redwood	3,524.3	3,132.7	1,818.8	1,132.5	8,759.3	6,264.4	184,695.6	49,072.8
Sargent's cypress	--	--	43.2	44.1	219.2	188.3	--	--
Shasta red fir	--	--	47,053.8	31,658.5	--	--	20,909.4	11,150.8
Singleleaf pinyon	236.5	218.0	57,750.2	13,128.9	615.5	377.1	10,038.6	3,427.4
Sitka spruce	6,790.2	6,858.9	--	--	--	--	--	--
Sugar pine	--	--	79,894.2	19,634.7	6,107.7	3,952.8	172,847.5	42,555.4
Utah juniper	--	--	--	--	148.5	157.7	985.8	659.0
Washoe pine	--	--	--	--	--	--	873.8	896.4
Western hemlock	--	--	7,699.0	7,776.9	--	--	5,876.3	4,304.2
Western juniper	469.1	369.4	--	--	11,848.3	3,923.1	50,218.6	7,770.7
Western white pine	651.6	725.3	8,411.0	4,122.7	1,136.3	843.5	107,245.1	22,337.8
	3,367.4	1,678.5	1,558,039.0	202,525.6	29,248.4	9,549.0	222,232.5	26,970.5
White fir								
Whitebark pine								
Total	3,502.5	3,168.6	--	--	294.3	277.0	11,061.4	3,492.7
	81,040.2	24,890.4	5,091,680.3	379,346.4	643,654.6	101,724.8	3,347,137.1	170,764.6
Hardwoods:								
Bigleaf maple	10,056.9	6,610.4	--	--	1,235.7	1,135.4	57,429.5	13,704.5
Black cottonwood	--	--	--	--	--	--	928.3	962.0
Blue oak	38,231.5	10,893.8	11,023.3	5,125.6	20,633.5	6,298.8	216,915.9	22,615.7
Boxelder	--	--	--	--	--	--	2,151.9	1,354.1
California black oak	95,311.7	21,496.6	12,314.2	4,052.5	18,118.7	6,795.3	613,672.7	46,923.3
California buckeye	--	--	--	--	2,330.8	1,506.0	23,005.4	5,520.4
California live oak	8,802.2	6,857.3	2,063.0	1,893.7	16,346.2	5,449.8	326,157.4	44,297.7
California sycamore	--	--	--	--	2,324.1	2,106.2	9,253.6	4,516.9
California white oak	6,039.5	4,707.0	4,324.3	3,918.9	23,188.6	12,228.4	32,472.9	10,183.1
California-laurel	15,408.4	9,339.7	--	--	26,107.6	10,195.8	176,299.9	34,501.4
Canyon live oak	24,668.8	12,779.1	12,584.1	9,488.2	3,936.9	2,424.8	566,282.6	53,507.0
Engelmann oak	--	--	--	--	--	--	547.3	546.8
Fremont cottonwood	--	--	--	--	--	--	1,914.5	1,517.5
Giant chinkapin	--	--	--	--	--	--	13,421.0	5,048.7
Interior live oak	23,819.1	12,676.0	2,278.6	1,640.4	8,166.0	3,186.3	139,674.7	18,067.6
Oregon ash	--	--	--	--	--	--	996.8	619.8
Oregon white oak	24,944.3	9,977.5	221.1	205.3	2,907.2	1,713.8	70,399.5	19,523.0
Pacific dogwood	--	--	--	--	--	--	2,012.7	932.6
Pacific madrone	36,506.3	16,275.4	--	--	15,867.9	6,109.8	511,007.7	53,731.6
Quaking aspen	--	--	--	--	59.0	59.9	1,526.3	1,465.1
Red alder	5,027.5	3,715.5	--	--	--	--	8,646.0	3,646.0
Tanoak	73,551.9	38,905.2	--	--	2,005.9	848.4	569,976.5	55,669.1
White alder	5,123.9	4,082.6	--	--	--	--	8,918.8	4,036.7
Total	368,251.1	71,614.0	44,808.6	12,581.3	143,228.1	20,980.6	3,354,262.9	137,470.8
Total, all species	449,291.3	77,634.5	5,136,488.9	379,486.1	786,882.7	103,897.6	6,701,400.0	226,389.3

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 cubic feet was estimated. Tree damage protocols changed from a PNWRS regional protocol collected through 2012 to a national protocol based on the Pest Trend Impact Plot System (PTIPS) list in 2013. Summary estimates presented in this table are the combined and cross-referenced result from each protocol as determined by the year of measurement. See FIADB user guide ver. 7.0 Appendix J and Appendix K for detailed protocols used during each time period.

^a Includes gross volume of live trees >= 5 inches diameter at breast height with one or more damages recorded. Gross volume includes rotten, missing, and form cull volume.

Table 113—Gross volume of live trees with damage on forest land, by species and type of damage, California, 2006-2015 (Continued)

Species	Type of damage							
	Other insects		Physical injury and defects		Root disease		Weather	
	Total	SE	Total	SE	Total	SE	Total	SE
Thousand cubic feet								
Softwoods:								
Bigcone Douglas-fir	699.7	713.5	21,565.7	8,193.1	--	--	--	--
Bishop pine	--	--	36,738.5	20,182.6	--	--	--	--
Brewer spruce	--	--	3,556.7	2,424.8	--	--	249.0	259.3
California juniper	--	--	20,077.1	4,242.7	--	--	--	--
California red fir	5,083.1	2,774.4	2,074,267.3	182,105.1	1,080,555.7	175,355.3	30,341.4	8,934.3
California torreya	--	--	6,206.5	2,103.7	225.6	138.6	95.6	99.6
Coulter pine	--	--	21,920.3	8,459.8	--	--	--	--
Douglas-fir	10,947.0	7,073.7	4,619,476.9	227,416.2	378,911.1	83,181.4	34,542.2	12,998.7
Engelmann spruce	--	--	652.8	729.0	--	--	--	--
Foxtail pine	--	--	185,854.2	56,901.0	--	--	1,334.6	1,013.0
Giant sequoia	--	--	11,371.3	11,902.6	--	--	--	--
Grand fir	--	--	33,269.3	10,059.8	1,112.8	1,041.2	--	--
Grey pine	2,527.3	2,116.1	112,509.5	16,590.0	4,036.5	2,739.8	968.3	818.3
Bristlecone pine	--	--	72,615.4	37,735.2	--	--	--	--
Incense cedar	2,269.2	1,564.8	1,304,322.9	83,883.8	197,694.7	60,281.7	5,407.6	2,889.1
Jeffrey pine	6,156.2	3,252.3	1,502,719.1	94,401.9	189,337.7	41,451.5	14,835.5	5,770.5
Knobcone pine	1,277.9	1,095.8	63,761.9	11,942.6	7,814.3	5,312.1	1,931.4	2,001.4
Limber pine	--	--	66,808.9	28,678.6	--	--	354.8	360.2
Lodgepole pine	2,520.7	2,764.9	1,832,776.1	141,827.3	143,286.5	37,150.7	11,222.1	4,024.9
Monterey pine	--	--	13,408.5	8,977.3	--	--	--	--
Mountain hemlock	3,397.0	2,979.3	219,340.7	39,075.5	35,097.2	20,323.1	8,042.0	3,328.5
Noble fir	--	--	5,877.8	6,072.3	--	--	--	--
Pacific silver fir	--	--	269.2	503.5	--	--	--	--
Pacific yew	--	--	2,456.6	914.7	--	--	--	--
Ponderosa pine	11,063.3	7,560.0	2,120,142.6	116,042.9	292,759.2	71,280.4	12,785.0	5,710.0
Port-Orford cedar	--	--	97,864.0	52,783.2	--	--	--	--
Redwood	--	--	2,653,813.7	415,339.9	60,661.0	34,488.1	9,285.8	5,410.6
Sargent's cypress	--	--	1,801.2	1,194.0	--	--	--	--
Shasta red fir	--	--	229,833.6	58,405.2	59,252.7	48,136.6	15,646.1	8,586.6
Singleleaf pinyon	6,193.8	2,981.2	198,846.4	24,440.4	22,589.2	8,396.7	1,594.7	1,254.4
Sitka spruce	--	--	22,407.7	12,152.4	--	--	2,779.5	2,807.6
Sugar pine	1,483.8	1,181.8	1,078,399.0	91,324.8	209,376.9	63,152.5	9,642.7	4,084.4
Utah juniper	--	--	29,452.5	7,501.7	12.4	11.3	349.4	357.4
Washoe pine	--	--	17,703.9	16,278.3	--	--	--	--
Western hemlock	--	--	65,984.9	20,249.7	3,851.8	4,064.0	--	--
Western juniper	495.3	498.8	162,866.9	14,802.8	1,499.6	1,048.6	2,310.0	1,251.3
Western larch	--	--	285.0	317.3	--	--	--	--
Western redcedar	--	--	6,233.5	6,749.6	--	--	--	--
Western white pine	1,079.3	1,084.0	401,596.4	45,886.0	33,380.2	12,396.8	18,615.8	9,477.4
White fir	26,590.9	8,480.6	3,867,487.8	206,053.0	2,168,276.9	242,953.9	41,752.5	8,774.7
Whitebark pine	--	--	92,756.1	18,022.6	233.0	204.1	1,957.9	1,221.9
Total	81,784.4	15,655.8	23,283,783.9	613,713.5	4,889,965.1	423,807.2	226,044.1	27,614.4
Hardwoods:								
Bigleaf maple	1,852.7	1,919.9	94,523.5	17,260.5	19,736.4	9,652.9	933.4	612.4
Black cottonwood	3,546.6	3,838.0	17,282.4	10,204.6	--	--	--	--
Blue oak	8,976.2	4,835.3	274,464.4	24,332.3	25,213.4	6,736.9	--	--
Boxelder	--	--	2,213.9	1,302.8	--	--	--	--
California black oak	9,857.0	5,264.7	871,079.5	55,119.7	110,014.8	17,601.1	2,768.0	1,536.0
California buckeye	--	--	24,201.0	6,778.9	874.7	668.5	--	--
California live oak	690.5	707.2	260,211.9	34,384.2	7,498.3	5,666.6	--	--
California sycamore	--	--	17,000.4	6,312.0	--	--	--	--
California white oak	3,386.3	3,414.8	110,598.2	28,565.4	5,458.6	4,294.1	--	--
California-laurel	--	--	136,010.8	28,269.9	44,835.9	15,744.0	5,770.7	4,121.0
Canyon live oak	3,340.4	1,979.3	757,560.6	59,686.8	144,695.3	27,591.4	5,546.4	3,961.4
Engelmann oak	--	--	7,262.1	4,173.5	--	--	--	--
Fremont cottonwood	--	--	8,063.6	4,863.2	--	--	2,471.1	2,512.6
Giant chinquapin	--	--	46,197.6	13,382.7	1,745.2	1,385.8	2,916.7	2,960.1
Interior live oak	90.6	89.2	128,906.7	16,799.2	8,328.4	3,170.1	411.4	300.1
Oregon ash	--	--	5,844.9	3,293.4	64.6	64.3	--	--
Oregon white oak	3,449.1	3,015.4	130,182.2	20,289.5	9,257.0	3,860.4	452.9	442.8
Pacific dogwood	--	--	1,379.8	560.4	144.9	130.6	--	--
Pacific madrone	3,600.0	2,107.9	680,132.0	59,352.2	126,989.5	26,181.3	1,518.6	1,581.2
Quaking aspen	--	--	9,915.1	3,207.5	1,188.2	1,230.1	1,292.1	1,318.7
Red alder	171.5	150.5	41,390.4	9,999.1	--	--	1,909.0	2,014.2
Tanoak	412.8	388.9	754,645.0	65,916.9	168,094.5	34,842.0	7,249.1	2,976.1
Mesquite	--	--	3,322.9	3,236.9	--	--	--	--
White alder	--	--	29,521.9	8,574.3	2,707.2	2,196.1	28.9	28.5
Total	39,435.6	11,433.7	4,419,014.3	153,919.0	676,846.8	71,432.2	33,268.3	8,771.4
Total, all species	121,219.9	19,379.1	27,702,798.2	629,587.3	5,566,811.9	430,117.2	259,312.4	28,950.3

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 50 cubic feet was estimated. Tree damage protocols changed from a PNWRS regional protocol collected through 2012 to a national protocol based on the Pest Trend Impact Plot System (PTIPS) list in 2013. Summary estimates presented in this table are the combined and cross-referenced result from each protocol as determined by the year of measurement. See FIADB user guide ver. 7.0 Appendix J and Appendix K for detailed protocols used during each time period.

^a Includes gross volume of live trees >= 5 inches diameter at breast height with one or more damages recorded. Gross volume includes rotten, missing, and form cull volume.

Table 114—Area of forest land with more than 25 percent of basal area damaged, by forest type and type of damage, California, 2006-2015

Forest type	Type of damage									
	Total forest land		Forest land with damage		Animal		Bark beetle		Cankers	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand acres</i>										
Softwoods:										
Bishop pine	15	9	10	7	--	--	--	--	--	--
California mixed conifer	7,982	173	4,600	147	--	--	24	11	52	18
Coulter pine	25	12	23	12	--	--	--	--	--	--
Douglas-fir	1,099	78	538	55	9	7	--	--	--	--
Foxtail pine / bristlecone pine	115	27	115	27	--	--	--	--	--	--
Giant sequoia	3	3	--	--	--	--	--	--	--	--
Grand fir	4	4	4	4	--	--	--	--	--	--
Incense-cedar	1	1	1	1	--	--	1	1	--	--
Jeffrey pine	941	71	505	53	4	4	--	--	--	--
Juniper woodland	293	42	108	25	--	--	--	--	--	--
Knobcone pine	43	15	8	6	--	--	--	--	--	--
Limber pine	41	15	41	15	--	--	--	--	--	--
Lodgepole pine	1,024	75	896	70	--	--	6	6	26	12
Misc. western softwoods	48	17	17	9	--	--	--	--	--	--
Mountain hemlock	164	32	135	29	--	--	--	--	--	--
Pinyon / juniper woodland	1,250	82	738	65	9	8	39	15	--	--
Ponderosa pine	1,403	85	531	53	10	5	7	4	6	5
Port-Orford-cedar	26	12	13	8	--	--	--	--	--	--
Red fir	670	62	536	56	--	--	11	8	25	13
Redwood	759	64	361	46	8	7	--	--	--	--
Sitka spruce	30	13	11	8	--	--	--	--	--	--
Western hemlock	7	7	7	7	--	--	--	--	--	--
Western juniper	1,523	92	797	67	36	14	--	--	10	7
Western white pine	171	32	135	28	--	--	--	--	15	9
White fir	1,215	82	824	68	--	--	24	12	32	13
Whitebark pine	253	38	206	34	--	--	--	--	--	--
Total	19,117	219	11,172	205	75	20	111	25	177	32
Hardwoods:										
Aspen	80	20	47	16	--	--	--	--	--	--
Bigleaf maple	33	14	19	10	--	--	--	--	--	--
Blue oak	2,312	104	970	72	8	5	--	--	--	--
California black oak	1,415	89	687	63	--	--	--	--	--	--
California laurel	370	45	143	28	--	--	--	--	--	--
California white oak	184	30	101	23	--	--	--	--	--	--
Canyon live oak	2,196	110	1,076	79	9	7	2	2	--	--
Coast live oak	853	64	497	50	3	3	--	--	--	--
Cottonwood	16	8	10	6	--	--	--	--	--	--
Cottonwood / willow	8	4	4	4	--	--	--	--	--	--
Eucalyptus	5	3	--	--	--	--	--	--	--	--
Evergreen oak woodland	32	13	20	10	2	1	--	--	--	--
Giant chinkapin	38	15	6	6	--	--	--	--	--	--
Gray pine	409	48	178	32	--	--	--	--	--	--
Interior live oak	1,001	74	471	51	--	--	--	--	18	10
Mesquite woodland	24	11	11	8	--	--	--	--	--	--
Misc. woodland hardwoods	46	16	4	2	--	--	--	--	--	--
Oregon ash	1	1	--	--	--	--	--	--	--	--
Oregon white oak	538	55	285	40	--	--	--	--	6	5
Pacific madrone	257	39	112	26	--	--	--	--	--	--
Red alder	186	31	104	24	7	7	--	--	--	--
Tanoak	1,441	88	776	67	14	9	--	--	--	--
Other hardwoods	441	49	160	30	7	5	--	--	1	1
Total	11,895	214	5,680	166	50	16	2	2	26	12
Nonstocked	926	70	178	31	5	6	6	7	5	5
Total	31,939	201	17,030	236	130	26	120	26	208	35

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- less than 500 acres was estimated. Tree damage protocols changed from a PNWRS regional protocol collected through 2012 to a national protocol based on the Pest Trend Impact Plot System (PTIPS) list in 2013. Summary estimates presented in this table are the combined and cross-referenced result from each protocol as determined by the year of measurement. See FIADB user guide ver. 7.0 Appendix J and Appendix K for detailed protocols used during each time period.

**Table 114—Area of forest land with more than 25 percent of basal area damaged, by forest type and type of damage, California, 2006–2015
(Continued)**

Forest type	Type of damage											
	Defoliators		Dwarf mistletoe		Foliar pathogen		Stem decay		Other insects		Total	SE
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE		
<i>Thousand acres</i>												
Softwoods:												
Bishop pine	--	--	1	1	--	--	1	1	--	--		
California mixed conifer	9	7	543	57	72	21	114	26	12	9		
Coulter pine	--	--	6	6	--	--	--	--	--	--		
Douglas-fir	21	11	2	2	--	--	60	18	--	--		
Foxtail pine / bristlecone pine	--	--	--	--	--	--	15	9	--	--		
Jeffrey pine	6	6	78	21	6	6	6	6	7	6		
Juniper woodland	--	--	--	--	12	8	--	--	--	--		
Knobcone pine	--	--	--	--	--	--	2	2	--	--		
Limber pine	--	--	--	--	--	--	2	2	--	--		
Lodgepole pine	--	--	78	21	4	4	21	11	--	--		
Mountain hemlock	--	--	20	11	--	--	1	1	--	--		
Pinyon / juniper woodland	--	--	133	29	5	6	5	6	28	13		
Ponderosa pine	--	--	46	16	--	--	7	6	--	--		
Port-Orford-cedar	--	--	--	--	--	--	2	4	--	--		
Red fir	--	--	271	40	54	17	6	6	--	--		
Redwood	--	--	--	--	--	--	4	5	--	--		
Sitka spruce	1	1	--	--	--	--	--	--	--	--		
Western juniper	14	9	14	10	36	15	124	27	12	9		
Western white pine	--	--	7	6	--	--	--	--	--	--		
White fir	--	--	183	33	--	--	1	1	--	--		
Whitebark pine	8	8	--	--	--	--	12	9	--	--		
Total	60	19	1,382	89	189	33	384	47	58	19		
Hardwoods:												
Aspen	--	--	8	6	--	--	--	--	--	--		
Blue oak	63	19	35	13	26	11	332	44	19	11		
California black oak	32	13	5	5	--	--	187	33	--	--		
California laurel	--	--	--	--	7	5	65	19	--	--		
California white oak	14	9	8	7	14	9	6	6	2	3		
Canyon live oak	13	9	39	15	3	3	173	32	--	--		
Coast live oak	7	6	8	7	13	8	209	33	--	--		
Cottonwood / willow	--	--	--	--	--	--	--	--	4	4		
Gray pine	18	9	48	17	8	7	12	9	6	6		
Interior live oak	14	9	21	12	20	11	132	27	--	--		
Misc. woodland hardwoods	--	--	--	--	--	--	4	2	--	--		
Oregon white oak	13	9	5	6	--	--	33	13	8	7		
Pacific madrone	--	--	--	--	--	--	45	16	--	--		
Red alder	6	6	--	--	--	--	--	--	--	--		
Tanoak	20	11	5	5	--	--	211	36	--	--		
Other hardwoods	--	--	6	6	10	8	44	16	7	7		
Total	198	34	187	33	101	23	1,454	89	46	16		
Nonstocked	2	2	21	10	--	--	--	--	12	8		
Total	260	39	1,590	95	290	41	1,838	100	117	27		

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 500 acres was estimated. Tree damage protocols changed from a PNWRS regional protocol collected through 2012 to a national protocol based on the Pest Trend Impact Plot System (PTIPS) list in 2013. Summary estimates presented in this table are the combined and cross-referenced result from each protocol as determined by the year of measurement. See FIADB user guide ver. 7.0 Appendix J and Appendix K for detailed protocols used during each time period.

Table 114—Area of forest land with more than 25 percent of basal area damaged, by forest type and type of damage, California, 2006-2015 (Continued)

Forest type	Type of damage					
	Physical injury and defects		Root disease		Weather	
	Total	SE	Total	SE	Total	SE
<i>Thousand acres</i>						
Softwoods:						
Bishop pine	10	7	--	--	--	--
California mixed conifer	3,105	126	550	57	27	12
Coulter pine	17	10	--	--	--	--
Douglas-fir	358	45	29	13	--	--
Foxtail pine / bristlecone pine	115	27	--	--	--	--
Grand fir	4	4	--	--	--	--
Incense-cedar	--	--	1	1	--	--
Jeffrey pine	401	47	2	2	2	2
Juniper woodland	93	23	--	--	--	--
Knobcone pine	6	6	--	--	--	--
Limber pine	34	14	--	--	--	--
Lodgepole pine	828	68	46	17	20	10
Misc. western softwoods	17	9	--	--	--	--
Mountain hemlock	132	28	7	6	5	5
Pinyon / juniper woodland	614	59	50	18	--	--
Ponderosa pine	383	45	41	16	--	--
Port-Orford-cedar	13	8	--	--	--	--
Red fir	365	46	138	28	--	--
Redwood	278	40	--	--	--	--
Sitka spruce	10	8	--	--	1	1
Western hemlock	--	--	--	--	--	--
Western juniper	631	61	--	--	10	8
Western white pine	126	28	10	7	--	--
White fir	608	58	250	38	3	4
Whitebark pine	199	33	--	--	7	7
Total	8,347	190	1,122	80	75	20
Hardwoods:						
Aspen	35	14	--	--	4	4
Bigleaf maple	19	10	--	--	--	--
Blue oak	585	57	48	17	--	--
California black oak	402	48	30	14	--	--
California laurel	81	21	8	7	--	--
California white oak	71	19	6	6	--	--
Canyon live oak	707	64	51	17	8	7
Coast live oak	311	40	6	6	7	6
Cottonwood	7	6	--	--	--	--
Evergreen oak woodland	20	10	--	--	--	--
Giant chinkapin	6	6	--	--	--	--
Gray pine	107	25	--	--	--	--
Interior live oak	264	39	5	6	--	--
Mesquite woodland	11	8	--	--	--	--
Oregon white oak	174	32	1	1	--	--
Pacific madrone	80	22	7	7	--	--
Red alder	71	20	--	--	--	--
Tanoak	483	53	46	17	2	2
Other hardwoods	124	27	1	1	--	--
Total	3,556	137	209	35	21	11
Nonstocked	150	29	5	5	--	--
Total	12,054	219	1,336	87	96	23

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 500 acres was estimated. Tree damage protocols changed from a PNWRS regional protocol collected through 2012 to a national protocol based on the Pest Trend Impact Plot System (PTIPS) list in 2013. Summary estimates presented in this table are the combined and cross-referenced result from each protocol as determined by the year of measurement. See FIADB user guide ver. 7.0 Appendix J and Appendix K for detailed protocols used during each time period.

Table 115—Mean percent cover of understory vegetation on forest land by lifeform^a and forest type group, California, 2006-2015

Forest type group	Shrubs		Forbs		Graminoids		All understory plants	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Percent</i>								
Softwood								
California mixed conifer group	18.0	0.5	5.3	0.2	3.8	0.2	25.3	0.5
Douglas-fir group	25.4	1.6	10.3	1.0	4.9	0.6	36.7	1.7
Fir / spruce / mountain hemlock group	16.6	1.1	6.6	0.5	3.1	0.3	24.7	1.1
Hemlock / Sitka spruce group	19.2	5.7	27.0	8.2	8.9	4.0	46.4	12.2
Lodgepole pine group	12.4	1.3	8.8	0.9	10.2	1.0	28.2	1.7
Pinyon / juniper group	19.0	0.7	4.2	0.4	10.1	0.9	30.0	1.1
Ponderosa pine group	23.6	1.0	6.0	0.4	8.5	0.6	34.7	1.1
Redwood group	22.9	1.8	18.3	1.7	3.7	0.5	39.7	2.1
Western white pine group	18.9	4.5	8.8	1.5	6.8	1.5	32.2	3.7
Other western softwoods group	13.5	0.8	5.7	0.5	14.6	0.8	30.3	1.1
All softwood types	18.5	0.3	6.5	0.2	6.4	0.2	28.8	0.4
Hardwood								
Alder / maple group	35.3	3.8	25.6	3.6	4.2	1.2	56.1	3.9
Aspen / birch group	24.2	4.1	15.3	3.9	10.1	1.8	44.2	5.4
Elm / ash / cottonwood group	29.0	7.2	11.8	3.6	35.4	9.6	61.9	9.1
Exotic hardwoods group	14.9	9.0	4.9	2.0	50.2	20.8	68.2	10.5
Tanoak / laurel group	21.4	1.2	8.6	0.8	3.3	0.4	30.6	1.3
Western oak group	21.3	0.6	14.9	0.4	27.9	0.7	53.2	0.7
Woodland hardwoods group	19.7	2.8	9.1	1.8	13.1	2.8	37.3	3.7
Other hardwoods group	27.5	2.5	9.0	1.5	10.8	1.9	42.2	2.7
All hardwood types	21.8	0.5	13.7	0.4	22.5	0.6	48.8	0.6
Nonstocked	28.8	2.2	10.7	1.1	11.3	1.4	45.4	2.2
All forest types	20.0	0.3	9.3	0.2	12.5	0.2	36.7	0.3
Chaparral on National Forest	16.2	1.4	1.9	0.3	2.3	0.4	18.6	1.6

Note: Data subject to sampling error; SE = standard error.

^a The value for all understory plants was calculated assuming random overlap of the other lifeforms on each plot

Table 116—Mean percent cover of understory vegetation on forest land by lifeform^a, forest type class, and age class group, California, 2006-2015

Forest type class ^b	Shrubs		Forbs		Graminoids		All understory plants	
	Age class group ^c	Mean	SE	Mean	SE	Mean	SE	Mean
<i>Percent</i>								
Dry conifer								
0-19	28.7	2.0	10.7	1.0	11.6	1.3	45.2	2.0
20-39	30.7	2.5	6.6	0.9	10.6	1.7	42.9	2.6
40-79	21.1	1.3	6.4	0.7	12.0	1.0	35.7	1.4
80-159	15.9	0.7	5.8	0.4	11.7	0.6	30.5	0.9
160+	12.9	1.0	6.0	0.5	7.3	0.7	23.9	1.2
Unknown	20.2	1.0	4.9	0.7	11.6	1.3	32.5	1.5
All ages	19.2	0.5	6.5	0.3	10.8	0.4	33.0	0.6
Wet conifer								
0-19	26.5	3.1	13.1	1.5	13.0	2.2	45.7	3.2
20-39	32.0	2.3	10.6	1.4	5.7	0.9	44.0	2.2
40-79	22.0	1.0	6.7	0.5	3.7	0.3	30.1	1.0
80-159	16.0	0.6	5.9	0.3	3.5	0.2	23.6	0.6
160+	17.9	0.9	7.4	0.5	2.8	0.2	26.2	1.0
Unknown	13.2	4.7	5.2	1.1	8.8	4.1	26.2	5.4
All ages	18.8	0.4	6.8	0.2	3.8	0.1	27.2	0.5
Dry hardwood								
0-19	34.5	2.7	11.2	1.5	12.8	2.2	50.8	2.6
20-39	34.8	2.6	7.8	1.3	6.0	1.2	44.9	2.5
40-79	21.7	1.0	10.8	0.7	15.9	1.1	40.9	1.3
80-159	21.5	1.1	12.3	0.8	19.1	1.2	43.8	1.4
160+	14.3	1.9	7.7	1.3	10.4	2.4	29.3	2.9
Unknown	19.5	0.8	17.4	0.7	34.1	1.0	59.1	0.9
All ages	21.5	0.5	13.4	0.4	22.9	0.6	48.7	0.6
Wet hardwood								
0-19	31.4	7.4	18.4	8.8	3.6	0.8	47.9	11.9
20-39	31.0	6.2	33.7	7.2	4.6	1.2	59.2	6.5
40-79	39.1	4.9	19.6	3.4	4.8	1.7	54.5	5.0
80-159	21.0	6.7	22.2	6.1	8.0	3.2	45.0	9.3
160+	23.4	0.0	0.8	0.0	11.8	0.0	33.2	0.0
Unknown	28.9	5.2	13.1	2.9	23.7	7.0	56.1	6.2
All ages	32.0	2.9	21.8	2.7	8.5	1.7	53.7	3.1
All forest type classes								
0-19	29.8	1.4	11.3	0.7	12.1	1.0	46.7	1.4
20-39	32.4	1.4	9.8	0.9	7.2	0.7	44.8	1.4
40-79	22.0	0.6	8.5	0.4	10.1	0.5	35.9	0.7
80-159	17.4	0.4	7.6	0.3	9.5	0.4	30.5	0.5
160+	15.9	0.7	7.0	0.4	5.1	0.4	25.8	0.8
Unknown	19.6	0.7	15.2	0.6	30.1	0.9	54.5	0.8
All ages	20.0	0.3	9.3	0.2	12.5	0.2	36.7	0.3

Note: Data subject to sampling error; SE = standard error.

^a The value for all understory plants was calculated assuming random overlap of the other lifeforms on each plot.

^b Dry conifer includes the pinyon/juniper; ponderosa, western white, and lodgepole pines; other softwoods, mixed conifer, and nonstocked forest type groups. Wet conifer includes the Douglas-fir, fir /spruce/mountain hemlock, hemlock/Sitka spruce, and redwood forest type groups. Dry hardwood includes the western oak, tanoak/laurel, other hardwoods, and exotic forest type groups. Wet hardwood includes the elm/ash/cottonwood, aspen/birch, and alder/maple forest type groups.

^c Unknown stand ages occur in stands where most of the trees--usually oaks--cannot be readily cored for increment.

Table 117—Estimated area of forest land covered by selected non-native vascular plant species and number of sample plots,^a by lifeform and species, California, 2006–2015

Life form	Scientific name	Common name	Area covered		
			Total	SE	Number of plots
<i>Acres</i>					
Shrubs					
	<i>Cytisus scoparius</i>	Scotch broom	13,488	5,077	21
	<i>Erica lusitanica</i>	Spanish heath	1,185	713	10
	<i>Genista monspessulana</i>	French broom	10,968	4,941	12
	<i>Hedera helix</i>	English ivy	1,349	802	5
	<i>Rubus armeniacus</i>	Himalayan blackberry	38,094	5,905	92
	<i>Rubus laciniatus</i>	cutleaf blackberry	1,494	721	6
Forbs					
	<i>Carduus pycnocephalus</i>	Italian plumeless thistle	5,756	1,437	25
	<i>Centaurea solstitialis</i>	yellow star-thistle	10,784	2,593	48
	<i>Cirsium arvense</i>	Canada thistle	3,745	1,911	10
	<i>Cirsium vulgare</i>	bull thistle	2,480	828	21
	<i>Digitalis purpurea</i>	purple foxglove	768	548	7
	<i>Erodium botrys</i>	longbeak stork's bill	60,622	10,217	52
	<i>Erodium cicutarium</i>	redstem stork's bill	48,731	10,025	46
	<i>Hypericum perforatum</i>	common St. Johnswort	1,059	336	20
	<i>Torilis arvensis</i>	spreading hedgeparsley	107,372	10,267	256
Grasses					
	<i>Aira caryophyllea</i>	silver hairgrass	4,845	2,429	16
	<i>Arundo donax</i>	giant reed	1,364	818	7
	<i>Avena fatua</i>	wild oat	97,756	13,949	88
	<i>Brachypodium distachyon</i>	purple false brome	55,238	10,766	51
	<i>Bromus diandrus</i>	ripgut brome	234,342	21,522	272
	<i>Bromus hordeaceus</i>	soft brome	136,622	15,065	167
	<i>Bromus madritensis</i>	compact brome	11,247	2,951	27
	<i>Bromus rubens</i>	red brome	36,060	7,087	83
	<i>Bromus tectorum</i>	cheatgrass	277,458	19,387	617
	<i>Cynosurus echinatus</i>	bristly dogtail grass	128,286	12,078	229
	<i>Taeniatherum caput-medusae</i>	medusahead	81,369	10,840	142

Note: Estimates are likely low for all species because only plants present at >3% cover on a subplot were recorded, and because most grasses and some forbs can be difficult to identify to species outside of their short flowering seasons. Data subject to sampling error; SE = Standard error.

^a Total number of sample plots with accessible forest land was 5,348.

Table 118—Estimated area of forest land covered by the most abundant vascular plant non-timber forest products, by plant group and species, California, 2006-2015

Plant group and scientific name	Common name	Total	SE
		Acres	
Shrubs:			
<i>Amelanchier alnifolia</i>	Saskatoon serviceberry	30,492	5,982
<i>Arctostaphylos</i>	manzanita	61,919	9,503
<i>Arctostaphylos manzanita</i>	whiteleaf manzanita	68,866	9,376
<i>Arctostaphylos nevadensis</i>	pinemat manzanita	144,150	15,210
<i>Arctostaphylos patula</i>	greenleaf manzanita	396,960	23,108
<i>Arctostaphylos viscida</i>	sticky whiteleaf manzanita	270,434	21,917
<i>Artemesia tridentata</i>	big sagebrush	214,950	13,523
<i>Ceanothus</i>	ceanothus	24,575	5,445
<i>Ceanothus velutinus</i>	snowbrush ceanothus	151,865	17,183
<i>Chimaphila umbellata</i>	pipsissewa	20,347	3,170
<i>Corylus cornuta</i>	beaked hazelnut	93,648	8,232
<i>Frangula californica</i>	California buckthorn	17,270	2,812
<i>Gaultheria shallon</i>	salal	93,561	12,862
<i>Holodiscus discolor</i>	oceanspray	43,134	5,186
<i>Mahonia nervosa</i>	Cascade barberry	27,189	4,990
<i>Monardella odoratissima</i>	mountain monardella	27,313	2,875
<i>Quercus sadleriana</i>	deer oak	29,776	8,025
<i>Quercus vaccinifolia</i>	huckleberry oak	396,483	29,124
<i>Ribes</i>	currant	26,286	3,263
<i>Rubus armeniacus</i>	Himalayan blackberry	38,094	5,905
<i>Rubus parviflorus</i>	thimbleberry	32,326	5,339
<i>Rubus spectabilis</i>	salmonberry	27,698	8,679
<i>Rubus ursinus</i>	California blackberry	66,340	8,981
<i>Salix</i>	willow	62,338	6,616
<i>Symphoricarpos albus</i>	common snowberry	37,980	5,267
<i>Vaccinium ovatum</i>	California huckleberry	321,266	24,997
Herbs:			
<i>Achillea millefolium</i>	common yarrow	20,990	3,457
<i>Apocynum androsaemifolium</i>	spreading dogbane	8,963	1,119
<i>Athyrium filix-femina</i>	common ladyfern	12,772	2,489
<i>Balsamorhiza sagittata</i>	arrowleaf balsamroot	10,685	2,064
<i>Chamerion angustifolium</i>	fireweed	5,466	2,230
<i>Claytonia perfoliata</i>	miner's lettuce	25,341	6,822
<i>Polystichum munitum</i>	western swordfern	236,970	20,657
<i>Pteridium aquilinum</i>	western brackenfern	120,398	8,773
<i>Taraxacum</i>	dandelion	19,467	4,945
<i>Xerophyllum tenax</i>	common beargrass	15,807	3,906

Note: Data subject to sampling error; SE = standard error.

Table 119—Total roundwood output by product, species group, and source of material, California, 2012

Products and species group	Source of material			
	Growing-stock trees		Other Sources	All sources
	Sawtimber	Poletimber	<i>Thousand cubic feet</i>	
Sawlogs				
Softwood	209,972	779	6,102	216,853
Hardwood	6	0	0	6
Total	209,978	779	6,102	216,859
Veneer logs				
Softwood	25,175	93	258	25,526
Hardwood	0	0	0	0
Total	25,175	93	258	25,526
Pulpwood				
Softwood	0	0	0	0
Hardwood	0	0	0	0
Total	0	0	0	0
Post, poles and pilings				
Softwood	881	0	9	890
Hardwood	0	0	0	0
Total	881	0	9	890
Miscellaneous products				
Softwood	5	0	30	35
Hardwood	0	0	0	0
Total	5	0	30	35
Total industrial products				
Softwood	236,033	872	6,400	243,304
Hardwood	6	0	0	6
Total	236,039	872	6,400	243,310
Fuelwood				
Softwood	0	0	124,320	124,320 ^a
Hardwood	103,101	382	12,111	115,594
Total	0	5	1,319	1,324
103,101	387	137,750	241,238	
Total Roundwood Products	0	0	124,320	124,320a
Softwood	339,133	1,254	18,511	358,898
Hardwood	6	5	1,319	1,330
Total	339,139	1,259	144,150	484,548

^aIncludes residential fuelwood consumption as reported by U.S. Energy Information Administration
<http://www.eia.gov/state/seds/seds-data-complete.cfm?sid=US#Consumption>

Table 120—Volume of timber removals by removal type, source of material and species group, California, 2012

Removal Type	Source of material						All sources		
	Growing stock			Other sources			All sources		
	Softwoods	Hardwoods	Total	Softwoods	Hardwoods	Total	Softwoods	Hardwoods	Total
<i>Thousand cubic feet</i>									
Industrial Products									
Sawlogs	210,751	6	210,756	6,102	0	6,102	216,853	6	216,859
Veneer logs	25,268	0	25,268	258	0	258	25,526	0	25,526
Pulpwood	0	0	0	0	0	0	0	0	0
Fuelwood	103,483	5	103,488	12,111	1,319	137,750 ^a	115,594	1,324	241,238
Posts, poles, and pilings	881	0	881	9	0	9	890	0	890
Miscellaneous products	5	0	5	30	0	30	35	0	35
Total industrial products	340,388	11	340,398	18,511	1,319	6,400	358,898	1,330	484,548
Logging residue	14,728	0	14,728	92,724	196	92,920	107,452	196	107,649
Total removals	355,116	11	355,127	111,235	1,515	99,320	466,351	1,526	592,197

^aIncludes residential fuelwood consumption reported by U.S. Energy Information Administration <http://www.eia.gov/state/seds/seds-data-complete.cfm?sid=US#Consumption>

Table 121—Average annual volume (cubic feet per acre) growth, removals, and mortality on forest land by ownership group, California, 2001-2005 and 2011-2015

	Ownership Group													
	National Forest		Other Federal		State and Local Government		Corporate		Noncorporate		Total Private		All Owners	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
	<i>Cubic feet per acre per year</i>													
Growth	60.6	1.6	44.5	5.0	86.9	10.1	89.2	3.8	53.3	2.8	69.8	2.2	63.6	1.3
Mortality	42.4	2.6	21.9	3.9	29.0	10.2	16.0	1.6	12.1	1.1	13.9	1.0	28.9	1.4
Removals	3.4	0.6	0.5	0.4	0.4	0.2	54.8	6.7	7.6	1.8	29.3	3.3	13.3	1.3
Net Change	14.8	3.0	22.1	5.4	57.6	15.5	18.4	7.8	33.6	3.1	26.6	4.0	21.5	2.2

Table 122—Average annual volume (cubic feet) growth, removals, and mortality on forest land by ownership group, California, 2001-2005 and 2011-2015

	Ownership Group													
	National Forest		Other Federal		State and Local Government		Corporate		Noncorporate		Total Private		All Owners	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
	<i>Thousand cubic feet per year</i>													
Growth	914,005	23,949	127,761	15,450	89,521	11,595	504,474	26,049	354,304	22,154	858,779	27,221	1,990,065	39,237
Mortality	639,194	39,324	62,816	11,586	29,836	10,557	90,400	9,741	80,643	7,603	171,042	11,969	902,889	43,770
Removals	51,792	8,994	1,449	1,216	386	206	310,191	38,931	50,664	11,690	360,855	40,081	414,482	41,095
Net change	223,019	45,417	63,496	15,852	59,298	16,448	103,884	44,190	222,998	22,111	326,882	48,812	672,694	70,272

Table 123—Average annual biomass (tons per acre) growth, removals, and mortality on forest land by ownership group, California, 2001-2005 and 2011-2015

	Ownership Group													
	National Forest		Other Federal		State and Local Government		Corporate		Noncorporate		Total Private		All Owners	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
	<i>Tons per acre per year</i>													
Growth	1.33	0.03	0.94	0.07	1.93	0.19	1.97	0.07	1.27	0.06	1.59	0.04	1.42	0.02
Mortality	0.97	0.06	0.52	0.09	0.75	0.21	0.40	0.04	0.35	0.03	0.37	0.02	0.69	0.03
Removals	0.06	0.01	0.00	0.00	0.00	0.00	1.13	0.14	0.13	0.04	0.59	0.07	0.26	0.03
Net Change	0.30	0.06	0.42	0.09	1.18	0.24	0.44	0.16	0.78	0.06	0.62	0.08	0.47	0.04

Table 124—Average annual biomass (thousand tons) growth, removals, and mortality on forest land by ownership group, California, 2001-2005 and 2011-2015

	Ownership Group													
	Private							All Owners						
	National Forest		Other Federal		State and Local Government		Corporate		Noncorporate		Total Private		All Owners	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Thousand tons per year</i>														
Growth	20,092	426	2,707	245	1,985	220	11,158	530	8,438	482	19,595	551	44,379	717
Mortality	14,647	842	1,495	252	772	223	2,257	212	2,353	199	4,610	279	21,524	942
Removals	1,198	194	49	30	18	8	6,454	807	1,165	269	7,619	838	8,884	861
Net Change	4,247	925	1,163	278	1,194	253	2,447	901	4,920	479	7,367	1,008	13,971	1,413

Table 125—Forest land area on which evidence of fire was observed, by fire year and ecoregion group^a, California, 2006-2015

Fire Year	Ecoregion Group											
	All California		Northern Interior		Central Valley		Sierra		Coast		Southern California	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Acres</i>												
Land with evidence of fire:												
2006	207,450	36,099	70,723	21,576	--	--	44,969	16,974	18,985	10,253	72,772	21,274
2007	296,877	44,047	16,959	10,602	--	--	123,466	28,759	43,002	17,484	113,450	26,547
2008	928,587	82,429	535,317	63,318	--	--	185,795	37,506	186,837	38,375	20,638	13,617
2009	209,790	43,249	75,714	26,166	--	--	61,604	23,762	63,242	23,240	9,231	9,292
2010	97,230	31,389	30,895	17,719	--	--	30,969	18,200	22,200	16,054	13,166	9,414
2011	119,539	39,103	31,423	18,873	--	--	50,774	26,016	37,342	22,554	--	--
2012	409,963	80,521	186,658	54,397	--	--	91,695	38,211	131,438	46,044	173	134
2013	337,878	84,702	45,270	32,644	--	--	233,153	70,383	32,422	26,863	27,034	21,049
2014	500,524	124,960	255,870	90,116	--	--	244,654	88,674	--	--	--	--
2015	891,055	237,383	439,330	170,848	--	--	266,816	135,091	65,885	64,728	119,023	88,715
Average	399,889	80,388	168,816	50,626	--	--	133,389	48,357	66,817	29,511	46,936	23,755

Note: Data are subject to sampling error; SE=standard error; -- fewer than 500 ac was estimated.

^a Northern Interior includes Modoc Plateau, Southern Cascades, Northwestern Basin and Range, Klamath Mountains; Central Valley includes Great Valley; Sierra includes Sierra Nevada Foothills, Sierra Nevada, Mono; Coast includes Central California Coast, Central California Coast Ranges, Northern California Coast, Northern California Coast Ranges, Northern California Interior Coast Ranges; Southern California includes Colorado Desert, Sonoran Desert, Mojave Desert, Southern California Mountain and Valley, Southeastern Great Basin, Southern California Coast.