

AB 1504 California Forest Ecosystem and Harvested Wood Product Carbon Inventory: 2019 Reporting Period

DATA UPDATE

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Report completed through an agreement between the U.S. Forest Service (Agreement No. 18-CO-11052021-214) and California Department of Forestry and Fire Protection (Agreement No. 8CA04056)

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February 2021

Prepared for:



Suggested report citation:

Christensen, G.A.; Gray, A.N.; Kuegler, O.; Tase, N.A.; Rosenberg, M. 2021. AB 1504 California Forest Ecosystem and Harvested Wood Product Carbon Inventory: 2019 Reporting Period Data update. U.S. Forest Service agreement no. 18-CO-11052021-214, California Department of Forestry and Fire Protection agreement no. 8CA04056. Sacramento, CA: California Department of Forestry and Fire Protection and California Board of Forestry and Fire Protection. 447 p.

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Acknowledgements:

Special thanks to the following individuals: The original authors on the Harvested Wood Product Carbon methods and results (documented in the 2017 report), Dan Loeffler, Nate Anderson, Keith Stockmann and Todd Morgan. This update uses the same methods but was completed internally by CAL FIRE staff, Nadia Tase. Also Kate Marcille of the University of Montana, Bureau of Business and Economic Research for providing 2019 California harvest volumes by owner for use in the HWP C update; Andrew Yost of Oregon Department of Forestry for assisting with updating the Harvested Wood Product Carbon model to resolve minor errors in calculations and improving Monte Carlo Analysis of uncertainty.

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Acronym List

AB – Assembly Bill

AGL – aboveground live

Board; BOF – California Board of Forestry and Fire Protection

BF – board feet

BLM – Bureau of Land Management

C – carbon

CAL FIRE – California Department of Forestry and Fire Protection

CF – cubic feet

CH₄ - methane

CI – confidence interval

CO - carbon monoxide

CO_{2e} – carbon dioxide equivalent

DBH – diameter at breast height

FF – Forest Land Remaining Forest (IPCC terminology)

FIA – Forest Inventory and Analysis

FIADB – FIA database

FMRL – Forest Management Reference Level

FS – Forest Service

GHG – greenhouse gas

GRM – Growth, Removals and Mortality

HWP – harvested wood product

HWP-use – harvested wood products in use

HWP-SWDS – harvested wood products at a solid waste disposal site

HWP-energy – harvested wood products burned for energy production

HWP-without energy – harvested wood products decayed or burned without energy production

IPCC – Intergovernmental Panel on Climate Change

LF – Forest Land Conversions (IPCC terminology)

MBF – thousand board feet

MMBF – million board feet

MMT – million metric tons

MT – metric tons

NFS – National Forest System

N₂O – nitrous oxide

NO_x - nitrogen oxides

PNW – Pacific Northwest Research Station

SOC – soil organic carbon

SWDS – solid waste disposal site

TBD – to be determined

TPO – Timber Products Output

U-MT BBER - University of Montana's Bureau of Business and Economic Research

USDA – United States Department of Agriculture

USFS – United States Forest Service

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1 Executive summary and key findings

The state of California has enacted a variety of legislation establishing greenhouse gas (GHG) emissions reduction targets. Currently, the state has a net carbon sequestration target for the forest sector of 5 million metric tons (MMT) of carbon dioxide equivalent (CO₂e) annually until 2020, establishing a critical role for California's forests in meeting the state's targets. This data update was provided to inform several elements of the state's effort to meet GHG emissions reduction targets by compiling best-available data on GHG emissions, stock and flux from California's forest sector, identifying critical gaps in data, and suggesting strategies to reduce uncertainty in estimating the magnitude of stocks and flux within the forest sector.

This is the fifth release in a series of annual Assembly Bill (AB) 1504 Forest Ecosystem and Harvested Wood Product (HWP) Carbon Inventory reports to the California Board of Forestry and Fire Protection (also referred to as the Board). This report includes 90% remeasurement of all FIA plots in California. Values for 2019 include changes to the FIA post-stratification process to not only reduce overall sampling error, but also to reduce the potential for bias introduced by non-sampled plots. Based on the 2019 CA AB 1504 reporting period, California's forests remain net sinks, sequestering 25.2 MMT CO₂e per year. This value includes changes in forest ecosystem pools (26.0 MMT CO₂e per year), harvested wood product pools (0.8 MMT CO₂e per year), non-CO₂ emissions from wildfires (-0.6 MMT CO₂e per year), and forest land conversions (-1.0 MMT CO₂e per year).

In order to compare 2019 results to the previous reporting period, the 2018 reporting period had to be re-calculated using the new post-stratification process. Under the old process, the net sequestration rate for the 2018 reporting period was 24.9 MMT CO₂e per year. However, after the recalculation, the value was 26.2 which includes changes in forest ecosystem pools (27.5 MMT CO₂e per year previously calculated as 26.2), harvested wood product pools (0.7 MMT CO₂e per year), non-CO₂ emissions from wildfires (-0.6 MMT CO₂e per year), and forest land conversions (-1.5 MMT CO₂e per year). Net annual forest carbon sequestration in 2019 is down 1.0 MMT CO₂e when compared to the recalculated 2018 reporting period.

The 2019 reporting period annual rate of carbon sequestration for just the forest ecosystem pools is 26.0 MMT CO₂e per year. This value is down by approximately 1.5 MMT CO₂e per year from the re-calculated 2018 reporting period. This reduction in annual carbon sequestration is the result of several factors including improvements in inventory methodology but is also being driven by two complementary factors; a continued increased rate of tree mortality and decreased gross growth rate on live trees. Tree mortality regardless of cause, accounted for an additional 1.1 MMT of CO₂e converted to dead wood annually. Gross growth on trees measured 10-years earlier declined by 0.3 MMT CO₂e annually further reducing the net rate of

sequestration. Of note, net change in the live tree pool on National Forest System lands decreased from +914 MMT CO₂e annually in 2018 to -692 MMT CO₂e annually in 2019, although the confidence intervals for these values include zero, making the change not statistically significant. Net change in the standing dead pool increased from +6,248 MMT CO₂e annually in 2018 to +6,926 MMT CO₂e annually in 2019. Changes in growth, removals, mortality and flux vary in each region, displaying different patterns amongst each category. Additional work is being completed to assess these differences in more detail.

The annual rate of forestland conversion (in acres) increases by approximately 18% from the 2018 reporting period due to an increase in forestland converting to grassland, overriding developed uses as the main land-use change. Although there is an increased shift to grassland, changes in carbon stocks due to forestland conversion do not change much from the previous reporting period as many of the areas classified in this reporting period as a conversion to grassland already had low tree stocking levels.

Forest ecosystem and harvested wood product carbon stocks are approximately 3.2 billion metric tons. For just the forest ecosystem, carbon stocks are approximately 3.1 billion metric tons. This is an increase of 1.7 million metric tons of forest ecosystem carbon compared to the re-calculated 2018 reporting period, representing an increase in line with previous results. Harvested wood products contribute an additional 135.2 MMT C to the forest ecosystem carbon stocks from current and historic harvests going back to 1952, representing about 4% of the total stock.

In many forest types, current stocking levels reflect over a century of fire suppression and may not represent stand densities that are resilient to disturbances common to California forests such as fire or pest outbreaks. Additionally, as the forests age in unharvested stands, growth rates slow. Older forests tend to store more carbon, but they might not accumulate new carbon as quickly as younger, fast-growing stands. Consequently, the stocks and flux represented in this report may not be sustainable into the future without forest management given the uncertainty in potential effects from climate change, the current level of forest disturbances from wildfire and pests, and aging of forests on federal lands. Compared to previous reporting periods, we continue to see drought effects on tree growth and mortality. Forests provide many other services beyond carbon sequestration and storage, so there are many other considerations beyond forest carbon dynamics when developing management actions.

This update includes changes to the FIA post-stratification process to not only reduce overall sampling error, but also to reduce the potential for bias introduced by non-sampled plots. This update also includes revisions to correct previous harvested wood product carbon stock Monte Carlo Analysis. Changes are described below under Section 2 - Improvements and methodological updates.

Key Findings:

FOREST ECOSYSTEM CARBON

Forest land area:

- As of 2019 there are approximately 31.6 million acres of forest land across all ownerships.
- 16.3 million acres are classified as timberland with an additional 4.1 million acres of productive forest land in reserves.
- The federal government manages 57% of California's forest lands, with the remaining areas under state and local government (3%) or private management (39%) (Figure 2.4).
- Overall there was a net loss of forest land at the rate of 30.5 ± 9.2 thousand acres per year. This represents an 18% increase in the rate of forestland conversion from the 2018 reporting period due to an increase in forestland converting to grassland, overriding developed uses as the main land-use change (Table 4.8/E1). Although there is an increased shift to grassland, changes in carbon stocks due to forestland conversion do not change much from the previous reporting period as many of the areas classified in this reporting period as a conversion to grassland already had low tree stocking levels. The confidence interval is high compared to the estimate because it is a relatively rare event at the scale of the inventory.
- Most of the forest land loss occurred on non-productive "other forest" (61%), followed by timberland (36%), with little change occurring on reserved lands (3%).
- Western oak woodlands cover the greatest area of all forest types at approximately 9.1 ± 0.35 million acres, followed by California mixed conifer at approximately 7.7 ± 0.32 million acres (Table 4.11; Appendix 2, Table A17). Western oak woodland estimates were improved by the updates to the post-stratification process to reduce the bias associated with denied access in hardwood and woodland areas, as described in section 2 – "Improvements and Methodological Updates."

Average net annual forest carbon dioxide sequestration - overview:

- Overall California forests are exceeding the 5 MMT CO₂e target rate of annual sequestration established by AB 1504, sequestering 26.8 ± 4.2 MMT CO₂e per year (excludes confidence interval for HWP C net change; Table 7.1). This value includes changes in forest ecosystem pools (26.0 MMT CO₂e per year), harvested wood product pools (0.8 MMT CO₂e per year), non-CO₂ emissions from wildfires (-0.6 MMT CO₂e per year), and forest land conversions (-1.0 MMT CO₂e per year).
- Based on plots initially measured between 2001-2009 and re-measured between 2011-2019, the average statewide rate of forest carbon sequestration is 26.0 ± 4.1 MMT CO₂e

per year, excluding net CO₂e contributions from other sources such as, harvested wood products, forest land conversions and non-CO₂ GHG emissions from wildfire (Table 4.1, 4.3).

- Net change in the soil organic carbon pool is estimated at -0.3 ± 0.6 MMT CO₂e per year (Table 4.1-4.3).
- Combined annual net emissions of non-CO₂ GHGs (methane and nitrous oxide) from wildfire is estimated to be 0.6 ± 0.1 MMT CO₂e per year (Table 4.2a, 4.7).
- Changes in land-use between forest and non-forest land condition is estimated to have a net effect of emitting 1.0 ± 0.8 MMT CO₂e per year (Table 4.2a, 4.9).
- Based on the 2019 measurement period, after accounting for these other CO₂ and greenhouse gas sources the statewide rate of carbon sequestration on all forest land is 24.5 ± 4.0 MMT CO₂e per year (Table 4.2a), down from the 2018 re-calculated reporting period estimate of 26.4 ± 4.3 MMT CO₂e. This value cannot be directly compared to previous report values from the 2015 reporting period (32.8 ± 5.5 MMT CO₂e per year), the 2016 reporting period (30.7 ± 5.3 MMT CO₂e per year), or the 2017 reporting period (27.0 ± 5.5 MMT CO₂e per year) due to improved methods over time and the re-stratification that occurred in 2019. However, data suggest that the net annual sequestration rate is decreasing over time. This value excludes contributions from HWP pools.

Average net annual forest carbon dioxide sequestration – by pool:

- Growth on live trees, including foliage and live roots, makes up 63% of the annual CO₂e change on all forest land at a net rate of about 16.6 ± 3.7 MMT CO₂e per year (Table 4.3).
- Of the estimated 13.4 MMT CO₂e per year cut within the forest (Table 4.3, 4.6a), approximately 10.0 MMT CO₂e per year in the form of commercial timber was removed from the forest to either be stored long term in durable wood products or emitted from burning (Appendix 3, Table 3.14).

Average net annual forest carbon dioxide sequestration – by owner:

- Individual noncorporate forest land owners provide the largest contribution, accounting for 40% of the statewide annual net change at a rate of 10.4 ± 1.4 MMT CO₂e per year (figure 4.1).
- The national forests account for 29% of the statewide annual net change at a rate of 7.5 ± 2.5 MMT CO₂e per year (figure 4.1). This represents a decrease of approximately 0.4 MMT CO₂e per year from the previous measurement period.

- Corporate forest land accounts for 21% of the statewide annual net change at a rate of 5.6 ± 2.7 MMT CO₂e per year (figure 4.1). This represents a decrease of 0.3 MMT CO₂e per year from the previous measurement period.
- State and local governments contribute 8% of the statewide annual net change at a rate of 2.1 ± 0.7 MMT CO₂e per year (figure 4.1). This represents a decrease of 0.2 MMT CO₂e per year from the previous measurement period.
- Other federal lands contribute 2% of the statewide annual net change at a rate of 0.5 ± 1.1 MMT CO₂e per year (figure 4.1). This represents a decrease from the previous measurement period of 0.3 MMT CO₂e per year.
- On reserved forest lands managed by the Forest Service live tree growth is not currently estimated to exceed carbon losses from the live tree pool due to tree mortality, as in previous measurement cycles (Figure 4.4a, Table 4.4a). Additionally this year, unreserved low-productive forest lands managed by the Forest Service as well as other federal forest lands are exhibiting carbon losses from the live tree pool due to tree mortality (Appendix table B9.1, B10).
- As in previous measurement cycles, annual gross growth per acre on live trees is currently exceeding all other carbon losses from the live tree pool due to mortality or harvest on unreserved timberland for all ownerships including lands managed by the Forest Service.
- The annual net rate of carbon sequestration per acre in the live tree pool is greatest on timberland owned by state and local government at 4.7 ± 1.4 metric tons of CO₂e per acre per year (Appendix 2, Table B12).
- The next highest annual net rate of carbon sequestration per acre in the live tree pool is on timberland owned by private individuals at 2.5 ± 0.3 metric tons of CO₂e per acre per year (Figure 4.4b, Table 4.4b).
- Trees growing on all ownerships and productive classes across all of California's forests are sequestering carbon at a net rate of 0.4 ± 0.1 metric tons CO₂e per acre per year (Table 4.4a).

Average net annual forest carbon dioxide sequestration – by region:

- The Sierra/Cascades region has the greatest annual growth in its forests relative to growth from other regions. This region also has the greatest amount of mortality; after accounting for harvest, live trees in the Sierra/Cascades region are still sequestering 2.0 ± 2.4 MMT CO₂e per year (figure 4.6). This is down from the re-calculated 2018 measurement period which estimated a rate of 3.1 ± 2.5 MMT CO₂e per year (previously 3.1 ± 2.6 MMT CO₂e per year, note decrease in SE as result of improved post-stratification). This value cannot be directly compared to previous report values for live tree sequestration from the 2015 measurement period (8.7 ± 3.0 MMT CO₂e per year),

the 2016 measurement period (7.8 ± 2.7 MMT CO₂e per year) or the 2017 measurement period (5.5 ± 2.7 MMT CO₂e per year) due to improved methods over time and the re-stratification that occurred in 2019. However, data suggest that the net annual sequestration in the live tree pool is decreasing over time.

- The North Coast region has the highest live tree net carbon sequestration at 7.7 ± 1.6 MMT CO₂e per year.
- The Southern Coastal Mountains and Deserts region continues to be the only region where tree mortality is exceeding tree growth, resulting in a net carbon reduction of the live tree pool of -0.8 ± 0.4 MMT CO₂e per year (figure 4.6). Further analysis is being conducted to determine why this region is experiencing an annual net loss of CO₂e and will be presented in a later report.

Average net annual forest carbon dioxide sequestration – Forest Practice Districts

- Net annual sequestration from forests in the Northern Forest Practice District is 9.0 ± 2.4 MMT CO₂e (15% lower than re-calculated 2018 reporting period); in the Southern Forest Practice District net annual forest sequestration is 2.2 ± 1.6 MMT CO₂e (12% lower than re-calculated 2018 reporting period); and in the Coastal Forest Practice District it is 10.6 ± 2.4 MMT CO₂e (13% lower than re-calculated 2018 reporting period) (Table 4.2b). These values include change from all forest ecosystem pools and non-CO₂ emissions from wildfires, but does not include change from harvested wood product pools or from forest land use conversions.
- The Southern Forest Practice District is experiencing carbon losses due to mortality primarily on forest land managed by National Forests and other federal agencies leaving this district susceptible to net carbon loss if the current rate of disturbance increases (Tables 4.6f). The Northern Forest Practice District is experiencing carbon losses due to mortality primarily on forest land managed by National Forests leaving this district susceptible to net carbon loss if the current rate of disturbance increases (Tables 4.6e).

Average net annual forest carbon dioxide sequestration – County

- Mendocino (5.2 ± 1.3 MMT CO₂e per year) and Humboldt (4.7 ± 2.0 MMT CO₂e per year) counties have the highest net carbon sequestration rates for all forest pools (Table 4.6b).
- By county, notable counties estimated in 2019 to have a net loss of forest carbon based on all pools are; Monterey (-0.3 ± 0.5 MMT CO₂e per year), San Bernardino (-0.4 ± 0.3 MMT CO₂e per year), Santa Barbara (-0.2 ± 0.2 MMT CO₂e per year), and Tuolumne (-0.8 ± 1.0 MMT CO₂e per year) (Table 4.6b).

Average net annual forest carbon dioxide sequestration – National Forests

- The Shasta-Trinity National Forest has the highest net annual carbon sequestration rate for all forest pools at approximately 2.3 ± 0.8 MMT CO₂e per year (Table 4.6c).
- There are five national forests in California currently experiencing a net loss of carbon based on all pools; Los Padres (-0.6 ± 0.5 MMT CO₂e per year), San Bernardino (-0.4 ± 0.3 MMT CO₂e per year), Klamath (-0.2 ± 1.0), Angeles (-0.1 ± 0.2 MMT CO₂e per year), Sequoia (-0.01 ± 0.6) (Table 4.6c).

Carbon stocks for forest land remaining forest land (FF) by pool:

- Currently there is just under 3.1 billion metric tons of carbon stocks stored on forest land including forest soils across all ownerships in California (Table 4.12a, figure 4.9, 4.10). This is an increase of 1.7 million metric tons of forest ecosystem carbon compared to the re-calculated 2018 reporting period, representing an increase in line with previous results.
- Approximately one third of this stored carbon is found above ground in the live tree pool (including foliage) ($1,059 \pm 26$ MMT C, Table 4.12a, figure 4.9).
- Forest soils store about 45% of the carbon ($1,395 \pm 16$ MMT C, Table 4.12a, figure 4.9).
- Approximately 7% of the stored carbon is found aboveground in dead wood pools (216 ± 7 MMT C, Table 4.12a, figure 4.9).
- Estimates of carbon on the forest floor contributed 134 ± 2 MMT C, Table 4.12a, figure 4.9).

Carbon stocks for forest land remaining forest land (FF) by owner:

- Approximately 64% of the carbon stocks in the state are found on public forest land ($1,971 \pm 39$ MMT C), with approximately 81% of that on National Forest System lands ($1,589 \pm 30$ MMT C) (Table 4.12a, figure 4.8).
- Private corporate forest land contains approximately 17% of the state's carbon stocks (517 ± 25 MMT C, Table 4.12a, figure 4.8).
- Private noncorporate forest land contains approximately 19% of the state's carbon stocks (582 ± 27 MMT C, Table 4.12a, figure 4.8).
- Approximately 60% of the forest carbon stores are found on unreserved timberland ($1,837 \pm 38$ MMT C, Table 4.12a, Figure 4.10).

Carbon stocks for forest land remaining forest land (FF) by region:

- Nearly half of California's carbon stocks in all carbon pools are found in a single region, the Sierra and Cascade Mountain Ranges. This region represents 47% of the forest land

area and contains $1,413 \pm 37$ MMT C (Table 4.19, figure 4.11). These stocks are roughly the same as the recalculated 2018 carbon stocks.

- The next largest carbon store, the Klamath Interior and Coast Ranges region has about 64% of the carbon stocks found in the Sierra and Cascades and close to 30% of those found in the state at 900 ± 35 MMT C (Table 4.17, figure 4.11). These stocks are roughly the same as the recalculated 2018 carbon stocks.
- For each of these regions the dead tree and down woody material pools are each about 8 of the live tree carbon pool.

Carbon stocks for forest land remaining forest land (FF) by forest type:

- The California mixed conifer forest type contains the largest carbon stock compared to all other forest types, storing approximately 962 ± 42 MMT C (Table 4.21, Figure 4.12). This represents an increase from re-calculated 2018 stocks of approximately 1 MMT C primarily in the dead and SOC pools.
- Western oak forests follow with 654 ± 28 MMT C (Table 4.21, Figure 4.12). This represents a slight decrease in most pools from re-calculated 2018 stocks of approximately 5 MMT C. Additionally, despite an increase in acres as a result of the updates to the post-stratification process to reduce the bias associated with denied access in hardwood and woodland areas, there is a decrease in carbon stocks due to increased acres in private non-corporate ownership which tend to have less biomass per acre compared to private corporate ownership.
- Notable exceptions of forest types where live tree carbon exceeds soil carbon includes the redwood, Douglas-fir, fir/spruce/mountain hemlock, western hemlock/Sitka spruce, and tanoak/laurel types.
- Most carbon stocks are found on unreserved timberland for most softwood forest types (Table 4.22, figure 4.13).
- The redwood forest type has the highest carbon density per acre (figure 4.14).
- Regional data by forest type is included in Appendix 1.

Carbon stocks for forest land remaining forest land (FF) by county:

- The counties with the highest carbon stocks are Siskiyou county with 324 ± 22 MMT C, Humboldt county with 244 ± 28 MMT C and Trinity county with 228 ± 21 MMT C (Table 4.12b). Stocks in Siskiyou county represent a slight decrease from 2018 recalculated stocks of approximately 3 MMT C. Stocks in Humboldt county represent a slight increase from 2018 recalculated values and Trinity county stocks are relatively stable compared to the previous reporting period.

Carbon stocks for forest land remaining forest land (FF) by National Forest:

- The Shasta-Trinity National Forest has the highest carbon stocks at 242 ± 13 MMT C and is also the largest National Forest at approximately 2.0 ± 0.1 million acres. (Table 4.12c).

Carbon stocks for forest land remaining forest land (FF) by Forest Practice District:

- The Northern Forest Practice District has the highest carbon stocks at $1,194 \pm 40$ MMT C (Table 4.12e). This represents a slight decrease of 150 MMT C across all pools compared to the 2018 recalculated values.
- In the Northern and Southern Forest Practice Districts, carbon on public lands make up the majority of the forest carbon, while in the Coastal Forest Practice District carbon on private lands make up the majority of the forest carbon (Table 4.12d, e, f).

Comparison to the Forest Management Reference Level (FMRL):

- FIA's initial 10-year forest inventory in California installed from 2001 - 2010 is the FMRL basis (i.e., baseline) to evaluate relative changes in California forest carbon stocks between measurement periods.
- Stock-change comparisons to the FMRL cannot determine net flux until the entire 10-year re-measurement period is complete in 2020. The GRM method is used to estimate annual net flux.
- Comparison to the FMRL show that overall California's forest carbon stocks are increasing over time with minor annual variations (table 4.31).

HARVESTED WOOD PRODUCT CARBON

This data update includes harvested wood product carbon stock and net change in harvested wood product carbon pools associated with harvests from 1952-2019. Harvest volumes for 2019 by owner are provided by the University of Montana, Bureau of Business and Economic Research (2020). The 2019 estimates reflect revisions from the 2017 full report that had slight in errors board foot to cubic foot conversion factors for 2013-2019 and end-use ratios for all years. The 2018 data update stated that the original model had errors in the code that also resulted in approximately 1% of the carbon to disappear from all pools. It was recently discovered that the carbon was not missing but was difficult to identify due to lag times in when carbon was allocated to certain pools and decay was applied. Consequently, the original model functioned correctly, but the revisions to the model code described in the 2018 data update are still useful for verifying calculations and remain valid changes (Christensen et al. 2020). Monte Carlo (MC) estimates of uncertainty in the HWP C estimates are updated in this data update to correct previous analyses resulting in narrower confidence intervals than expected based on input parameters. Revisions to the Monte Carlo analysis are described further below in Section 2 - "Improvements and methodological updates." A more detailed description of the MC Uncertainty Analysis methods is provided in Appendix 3.

HWP C stock

- For the 2019 California AB 1504 reporting period, the average HWP C stock is approximately 77.8 MMT C for Products in use (HWP-in use), 57.4 MMT C for Products in solid waste disposal sites (HWP-SWDS), and approximately 135.2 MMT C for both HWP pools (see Table 6.5).
- For the 2019 California AB 1504 reporting period, carbon stored from harvests originating from privately owned forestland comprises 67% of the HWP C stock at 91.0 MMT C. Carbon stored from harvest originating from National Forest System lands comprises 31% of the HWP C stock at 41.7MMT C, with the remainder of the HWP C stocks coming from Tribal, BLM, and State and other public land.

HWP C flux

- For the 2019 California AB 1504 reporting period, the average net change in HWP C pool is approximately -1.2 MMT CO₂e for Products in use, 2.0 MMT CO₂e for products in SWDS, and 0.8 MMT CO₂e for all pools (see Table 6.6).
- For the 2019 California AB 1504 reporting period, for harvest originating from all ownerships, net change in the products in use pool is negative, representing a shift in HWP C from the Products in use pool to the SWDS pool faster than new carbon is being added to the products in use pool.

Harvest

- The weighted average annual harvest values associated with the 2019 California AB 1504 reporting period is approximately 2.7 MMT C (1.6 million MBF). This equates to approximately 10.0 MMT CO₂e per year in the form of commercial timber removed from the forest (Appendix 3, Table 3.14). Based on the forest ecosystem portion of the inventory for the same time period, approximately 13.4 MMT CO₂e per year is cut within the forest (Table 4.6a).

Monte Carlo Uncertainty Analysis

- The Monte Carlo simulation succeeded in introducing variability into the HWP model. The resulting confidence interval range (-17% to 22%) is slightly narrower than the 2010 Monte Carlo simulation interval for Stockmann et al. (2012) of -24% to +28% for non-emissions carbon pools. The Stockmann et al. (2012) simulation included a longer harvest time-series with greater uncertainty in several variables in earlier years, which were not evaluated in this analysis.
- After 2,000 iterations, the MC simulation fully converged on values for the mean and the 90% confidence intervals for the cumulative amount of carbon in the combined

HWP pools of Products in use and at SWDS (Figure 6.6). The MC simulation code succeeded in creating correlated random triangular variables.

- For 2019, the MC estimate for the mean of these two pools combined was 137.1 MMT C with a lower bound of 114.2 and an upper bound of 160.7 MMT C (table 6.7).
- The width of the confidence intervals through the time series reflected the effect of altering parameter values for ever-increasing amounts of carbon entering the model and being emitted or distributed to different pools (figures 6.6, 6.7, table 6.7). The precision of parameter estimates for harvest and the ratios for timber and primary products was modeled as improving over time (Appendix 3, table 3.8a). Between 1952 and 1982, the difference between both the lower and upper bound relative to the simulated mean averaged about 21%. From 1982 to 2019, both the lower and upper bounds averaged about 17% relative to the mean.
- The difference between the MC simulation means and the HWP C model values for the combined pool of Products in use and at SWDS were less than 1% for most of the time series, except for the years prior to 1968, when it was slightly larger (table 6.7).
- Confidence intervals were generated separately for the cumulative amount of carbon in the Products in Use, at SWDS, Burned with Energy Capture, and Burned without Energy Capture pools (Figure 6.7). The small differences (< 2.2 MMT C) between the MC simulated means for these pools in 2019 and the respective estimates from the HWP C model (Table 6.8) indicate that the simulation operated as expected given the parameters in Appendix 3, table 3.8a. The 2019 MC confidence intervals for SWDS, relative to the mean, were the widest of these four disposition categories at about 19% and 21% for the lower and upper limits, respectively. Conversely, the width of the 2019 confidence intervals for Burned with Energy Capture were the smallest at about 17% and 18% of the mean, respectively.
- Most of the variability introduced into the simulation was achieved by affecting harvest, conversion ratios, and product and decay half-lives.

HWP C Emissions

- HWP C emissions data for HWP burned with and without energy capture are not included in forest sector C accounting, but are used in other sectors (i.e., waste, energy). Cumulative emissions associated with these pools (HWP-energy, HWP-without energy) for individual years can be found in table 6.2. However, without a greater understanding of the reporting timeframes and data needs from these other sectors, additional calculations on HWP emissions are not provided in this report at this time.

Background:

The forest sector carbon data provided in this update comply with the Intergovernmental Panel on Climate Change Tier 3 good practice guidelines for carbon accounting (IPCC 2006, 2014) and are intended to assist the Board in evaluating and monitoring progress on meeting California's forest sector carbon sequestration target. This update can inform policy decision-making, but is not intended to be a complex policy assessment framework. Forest ecosystem carbon stocks and flux are established using direct measurements on forested plots throughout the state of California as part of the United States Department of Agriculture (USDA) Forest Service Forest Inventory and Analysis (FIA) program. Harvested wood product carbon (HWP C) stocks are based on estimates from the California variant of the harvested wood product carbon accounting model based upon the IPCC Tier 3 production accounting approach.

The forest ecosystem data presented in this report are based on the 2010-2019 FIA measurement cycle. Carbon stocks physically present in the forest are based on a 10-year average for the time-period of 2010-2019 and given in metric tons (MT) of carbon (C). The estimates of average annual carbon sequestration (i.e., net flux) is based on plots and trees initially measured between 2001 and 2009 then re-measured 10 years later between 2011 and 2019. Calculating flux based on actual growth, removals and mortality (i.e., the GRM approach) allows for annual reporting and is more statistically robust than a simple stock-change approach.

Harvested wood product carbon estimates include contributions from current and historic harvests going back to 1952, the year annual harvest data was available for all ownerships. Harvested wood product carbon stocks are reported by the HWP C model in the year following harvest, i.e. harvested wood product carbon stock associated with 2019 removals is reported in year 2020. To be consistent with FIA's forest ecosystem ten-year average reporting periods and correspond with 2010-2019 annual harvests, the 10-year average of the HWP C stock for the years 2010-2019 is reported. Harvested wood product carbon flux for the 2018 reporting period is reported as the average annual flux for the nine ten-year intervals of 2002-2012, 2003-2013, 2004-2014, 2005-2015, 2006-2016, 2007-2017, 2008-2018, and 2009-2019 to match the removals associated with the 2019 FIA plot remeasurement cycle.

Forest ecosystem and harvested wood product carbon stock and flux results associated with these time periods are referred to as 2019 results, 2019 reporting period results, or 2019 measurement cycle results throughout the report. To more clearly describe the time periods covered in the stock and flux estimates in this report, please note that the title has been changed to reflect the "2019 reporting period," rather than specific ranges of years.

In this analysis results of carbon physically present in the forest or in harvested wood products in use or at solid waste disposal sites are given in metric tons (MT) of carbon (C). Results of carbon flux are given in metric tons (MT) of carbon dioxide equivalent (CO₂e). Net changes in individual carbon pools are also shown in units of CO₂e to provide insight into the components of change, even if they aren't a direct flux with the atmosphere (e.g., tree mortality, which is a conversion from live to dead wood that initially stays in the ecosystem; transition from harvested wood products in use to harvested wood products in solid waste disposal sites). Carbon can be converted to CO₂e by multiplying by 3.667 or the fraction 44/12¹. Ranges in the text presented for forest ecosystem results (i.e., ±) represent a 95% confidence interval (CI), while values in the tables report the sampling error (SE; CI = 1.96*SE). Confidence intervals around forest ecosystem flux estimates tend to be slightly smaller than in the previous year's report because estimates are based on more plots (9/10ths of the full cycle compared to 8/10ths).

Reports released to date include:

- [AB 1504 California Forest Ecosystem and Harvested Wood Product Carbon Inventory: 2006 – 2015 FINAL REPORT](#) (Christensen et al. 2017).
- [AB 1504 California Forest Ecosystem and Harvested Wood Product Carbon Inventory: 2006 – 2015 ERRATUM SHEET](#) (Christensen et al. 2018a).
- [AB 1504 California Forest Ecosystem and Harvested Wood Product Carbon Inventory: 2007 – 2016 DATA UPDATE](#) (Christensen et al. 2018b).
- [AB 1504 California Forest Ecosystem and Harvested Wood Product Carbon Inventory: 2017 Reporting Period FINAL REPORT](#) (Christensen et al. 2019).
- [AB 1504 California Forest Ecosystem and Harvested Wood Product Carbon Inventory: 2018 Reporting Period DATA UPDATE \(Christensen et al. 2020\)](#)
- AB 1504 California Forest Ecosystem and Harvested Wood Product Carbon Inventory: 2019 Reporting Period DATA UPDATE (i.e., this report)

2 Improvements and methodological updates

Errors found after release of the initial inventory (Christensen et al. 2017) are detailed in Christensen et al. 2018a and are also corrected in subsequent reports. Please note that due to refinements in the methodology over the years and recent changes in the FIA post-stratification process, it is not possible to compare all the results from this report to previous reports. To facilitate some level of comparison to previous inventories, forest carbon stocks for each 10-

¹ Throughout the forest ecosystem portion of the inventory, results are converted from C to CO₂e by multiplying by 3.667. Throughout the harvested wood product portion of the inventory, results are converted from C to CO₂e by

year inventory period are recalculated to include all methodological updates in tables 4.31-4.33.

Changes to this data update from the previous data update include modifications to the FIA post-stratification process for the forest ecosystem estimates and modifications to how the HWP C model executes the Monte Carlo uncertainty analysis, as described below. Additionally, the 2018 data update stated that the original HWP C model had errors in the code that resulted in approximately 1% of the carbon to disappear from all pools. It was recently discovered that the carbon was not missing but was difficult to identify due to lag times in when carbon was allocated to certain pools and decay was applied. . Consequently, the original model functioned correctly, but the revisions to the model code described in the 2018 data update are still useful for verifying calculations and remain valid changes (Christensen et al. 2020).

FIA Post-stratification

Non-sampled inventory plots due to FIA inventory crews being denied permission to access the plot or finding conditions at the plot location too hazardous to collect field measurements can lead to a statistical bias in the compiled estimates. FIA uses post-stratification to not only reduce overall sampling error, but also to reduce the potential for bias introduced by non-sampled plots. Post-stratification is applied to the inventory by grouping similar forest land areas into the same strata, such as ownership. Previously, PNW-FIA used strata based on a forest/non-forest layer, ownership groups (private, federal land, state and local), and reserved areas such as National Forest wilderness areas and National Parks to reduce the effects of bias.

In recent years there has been a trend toward a distinctly higher non-sampled rate for FIA plots located on smaller acreages of privately held ownerships. Additionally, owners of smaller privately held forest land tend to manage their land differently than owners of larger privately held forest land resulting in differences such as in harvest rates. In response to potential bias this difference could have on estimates of change, PNW-FIA responded by grouping all privately held forest land into one of three strata based on holding size class; small, medium and large.

Additionally, for the 2019 inventory update PNW-FIA also incorporated a newer NLCD forest cover map, additional vegetation layers, and updated NFS boundary layers. These updated layers also serve to improve post-stratified estimates. For example, hardwoods and woodland areas have higher non-sampled response rates due to higher access denied. Updated spatial information on hardwoods and woodlands improves the estimates by reducing the bias associate with access denied.

These changes resulted in a statewide decrease of approximately 5.0 MMT C in the aboveground live tree pool, and a reduction in the sampling error of approximately 0.8 MMT C. This re-stratification therefore improves the estimated values as well as the confidence in the estimated values.

Monte Carlo Uncertainty Analysis

The previous HWP C model code resulted in narrower confidence intervals than expected based on the parameters set for the Monte Carlo Uncertainty Analysis. For example, a range of ± 5 -30% was specified for values in 17 input variables used to calculate harvested wood product carbon stocks. However, resulting Monte Carlo confidence intervals for harvested wood product carbon stocks were less than 0.1% different from the mean. These errors were corrected through re-coding the model in the R (2020) programming environment through an agreement between Oregon Department of Forestry, Oregon State University, and Groom Analytics, LLC.

The corrected Monte Carlo simulation to estimate the uncertainty associated with estimates generated with HWP C model follows methods described by Skog (2008) and used by Anderson et al. (2013) and Stockmann et al. (2012). The goal of the MC simulation was to produce 90% confidence intervals for the cumulative amount of carbon classified in four categories: Solid Waste Disposal Sites (SWDS), Products in use (PIU), emissions without energy capture (EWOEC), and emissions with energy capture (EEC) from fuelwood. To achieve this goal, the MC simulation directly altered 16 different variables within the model according to their associated parameters (Appendix 3, table 3.8a). These 16 variables were allowed to vary by amounts that were based on estimates from Skog (2008) and professional judgement. The previous version of the model altered 17 variables, but the "Discarded material burned with energy capture" variable was omitted at this time as there were no products subject to this fate in this analysis. Future iterations of this model will include this parameter in the MC analysis. Random values were drawn from triangular distributions that have a peak value of 1.0 (Appendix 3, table 3.8a) and symmetrically taper to given 90% confidence interval bounds. The random values from the triangular distribution were used as proportions for adjusting parameter values for each iteration of the simulation. A full description of the methods for the MC simulation is provided in Appendix 3.

3 Forest ecosystem results: Carbon flux, stock, and trends, select table and figure updates

Table and figure numbers in this section match numbers in the 2017 measurement period report (Christensen et al. 2019). While most of the tables and figures have been replicated here, not all have been as the organization of the report is continuing to be revised. This section is intended to serve as a data update only - detailed discussion associated with the following tables and figures are forthcoming in the next full report.

Percent of forest land base by owner and reserve status (2010-2019)

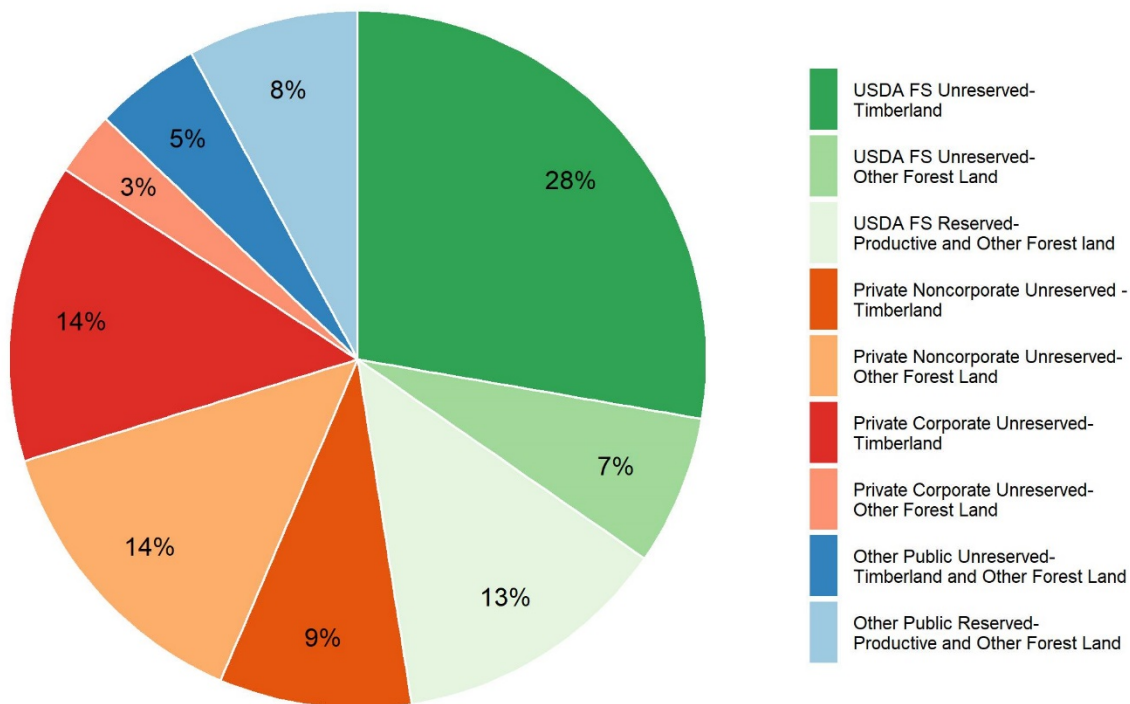


Figure 2.4: Percent of forest land base by owner, reserve status for forest land remaining forest land (2010-2019).

Table 4.1: Statewide average annual net CO₂e flux from forest pools in forest land remaining forest land, 2001-2009 to 2011-2019

	Net flux	
	Total	SE
	<i>million metric tons CO₂ equivalent</i>	
CARBON POOL		
Forest		
Aboveground live¹	13.6	1.9
Aboveground dead²	8.6	1.3
Belowground live³	2.8	0.4
Belowground dead⁴	1.3	0.2
NET FLUX	26.3	2.0
Soil Organic C	-0.3	0.3
TOTAL FOREST NET FLUX	26.0	2.1
¹ includes live trees, foliage, and understory veg		
² includes standing and down dead wood, forest floor		
³ includes live tree and understory veg roots		
⁴ includes dead tree roots		
Totals may be off due to rounding		

Table 4.2a: Statewide average annual net CO₂e flux from forest pools, non-CO₂ emissions from forest fires in Forest land remaining forest land, and changes due to forest land conversions (i.e., by forest land-use and land-use change). Plots initially measured between 2001-2009 and re-measured between 2011-2019.

Land-use category	Net flux	
	Total*	SE
	<i>million metric tons CO₂ equivalent</i>	
Forest land remaining forest land		
Changes in forest carbon	26.3	2.0
Changes in Soil Organic Carbon	-0.3	0.3
Non-CO ₂ emissions from forest fires	-0.6	0.1
<i>net flux</i>	25.5	2.1
Forest land conversions		
Changes in forest carbon, forest to non-forest	-2.5	0.3
Changes in forest carbon, non-forest to forest	1.5	0.2
<i>net flux</i>	-1.0	0.8
<i>total net flux</i>	24.5	2.1

Note: negative numbers are a net emission to the atmosphere

*totals may be off due to rounding

Table 4.2b: Average annual net CO₂e flux from forest ecosystem pools and non-CO₂ emissions from forest fires in Forest land remaining forest land, 2001-2009 to 2011-2019: Forest Practice Districts

Forest Practice District	Net flux		Soil Organic C		non-CO ₂ emissions from forest		Total net flux	
	Total	SE	Total	SE	Total	SE	Total	SE
Northern	9.7	1.2	-0.5	0.2	-0.2	0.0	9.0	1.2
Southern	2.6	0.8	-0.2	0.1	-0.2	0.0	2.2	0.8
Coastal	10.4	1.2	0.2	0.1	0.0	0.0	10.6	1.2
All California	26.3	2.0	-0.3	0.3	-0.6	0.1	25.5	2.1

million metric tons CO₂ equivalent

Note: negative numbers are a net emission to the atmosphere

Table 4.3: Statewide estimate of average annual net carbon flux (CO₂e) by pools and owner, 2001-2009 to 2011-2019. Changes in CO₂e due to land-use and non-CO₂ greenhouse gas emissions are not included. See also Appendix 2, Table B1.

	Public						Private				Total		Total	
	National forest		Other federal		State and local gov.		Corporate		Non Corporate		Total	SE	Total	SE
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Standing Live tree														
Mortality	-28,709	1,310	-4,045	548	-1,248	230	-3,751	247	-4,794	312	-8,545	382	-42,547	1,485
Cut	-2,279	368	-49	26	-176	115	-9,252	928	-1,634	341	-10,885	978	-13,389	1,051
Gross Growth	30,296	476	3,881	225	3,207	279	17,872	574	13,772	532	31,644	585	69,028	804
Net	-692	1,357	-213	547	1,782	276	4,870	990	7,344	571	12,214	1,100	13,091	1,861
Foliage	33	69	-5	25	83	15	279	51	330	28	609	56	720	94
Roots														
Live	-16	271	-17	101	350	61	1,072	205	1,391	119	2,463	229	2,781	376
Dead	1,177	194	28	82	-30	29	12	48	130	53	142	72	1,318	225
Standing Dead	6,926	930	411	439	-115	113	383	196	816	232	1,198	304	8,421	1,077
Dead Woody Debris	704	572	412	273	47	169	-1,215	388	246	277	-969	477	194	812
Understory Vegetation														
Above Ground	-43	44	32	24	-18	6	-71	38	-63	16	-134	41	-163	65
Below Ground	-5	5	4	3	-2	1	-8	4	-7	2	-15	5	-18	7
Total (excluding soils)	8,084	1,190	653	541	2,098	353	5,321	1,315	10,188	708	15,509	1,441	26,344	1,978
Forest Floor	-122	113	-121	55	9	13	62	76	133	49	195	91	-40	156
Soils	-458	205	-68	70	-28	42	199	217	94	103	293	239	-262	326
Total (including soils and forest floor)	7,504	1,263	463	578	2,079	355	5,582	1,364	10,415	727	15,997	1,493	26,043	2,071

thousand metric tons CO₂ equivalent per year

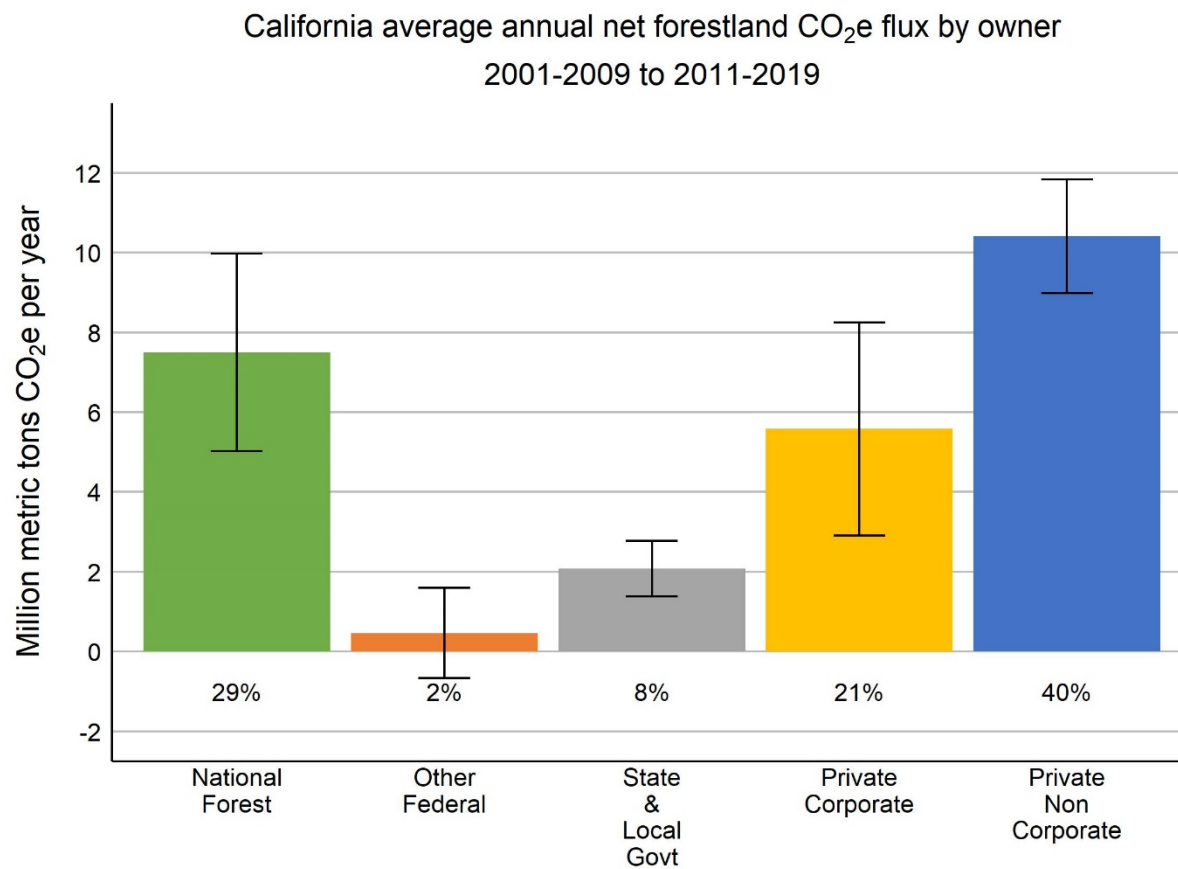


Figure 4.1. California average annual net forest CO₂e flux, all forest ecosystem pools by owner, 2001-2009 to 2011-2019 (MMT CO₂e/yr). Error bars represent the 95% confidence interval of net flux. Percentage contribution by owner based on average value. Figure derived from table 4.3/Appendix 2, Table B1.

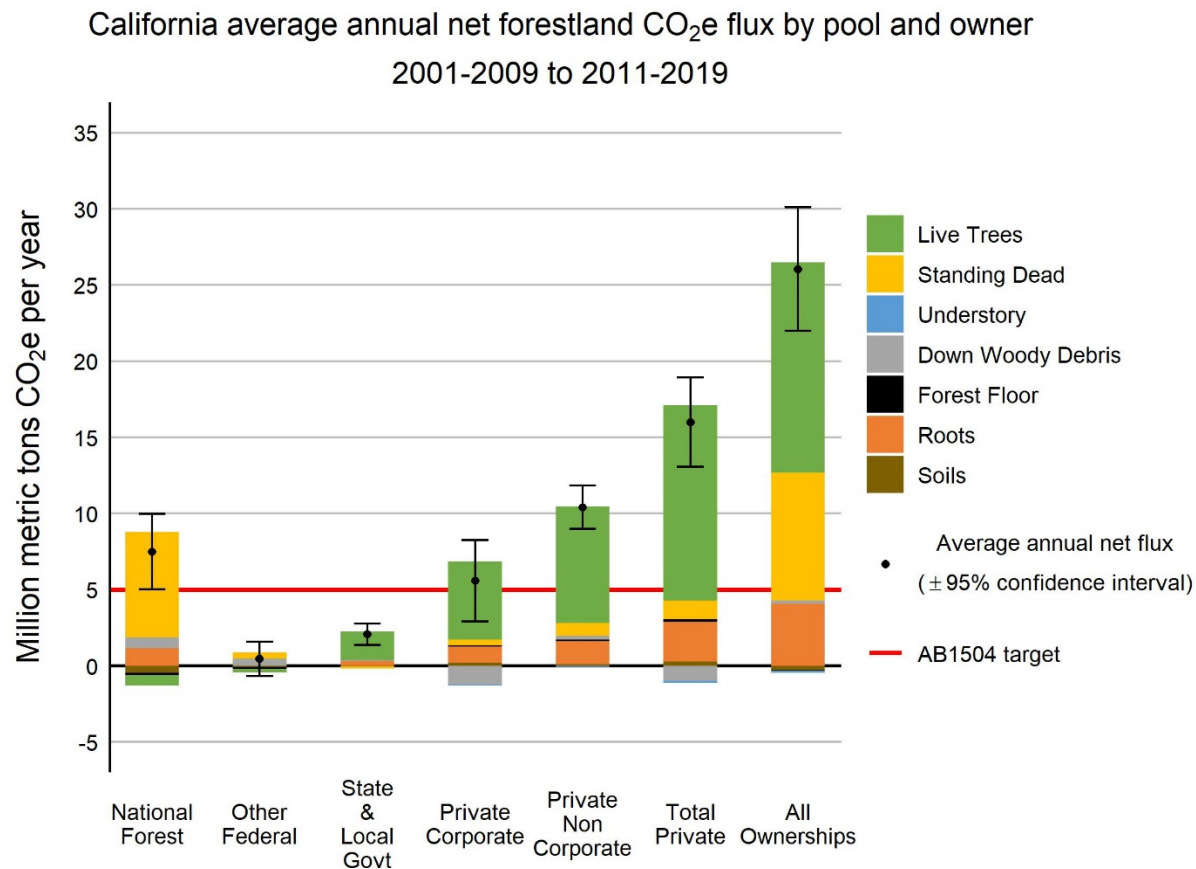


Figure 4.2. California average annual net forestland carbon flux by pool and ownership, 2001-2009 to 2011-2019 (MMT CO₂e/yr). Estimates exclude emissions from land-use changes (-1.0 MMT CO₂e/yr) and non-CO₂ greenhouse gases (-0.6 MMT CO₂e/yr). Roots includes belowground live and dead tree roots. Understory includes aboveground and belowground understory vegetation. Error bars represent the 95% confidence interval of estimated net flux. Figure derived from Table 4.3/Appendix 2, Table B1.

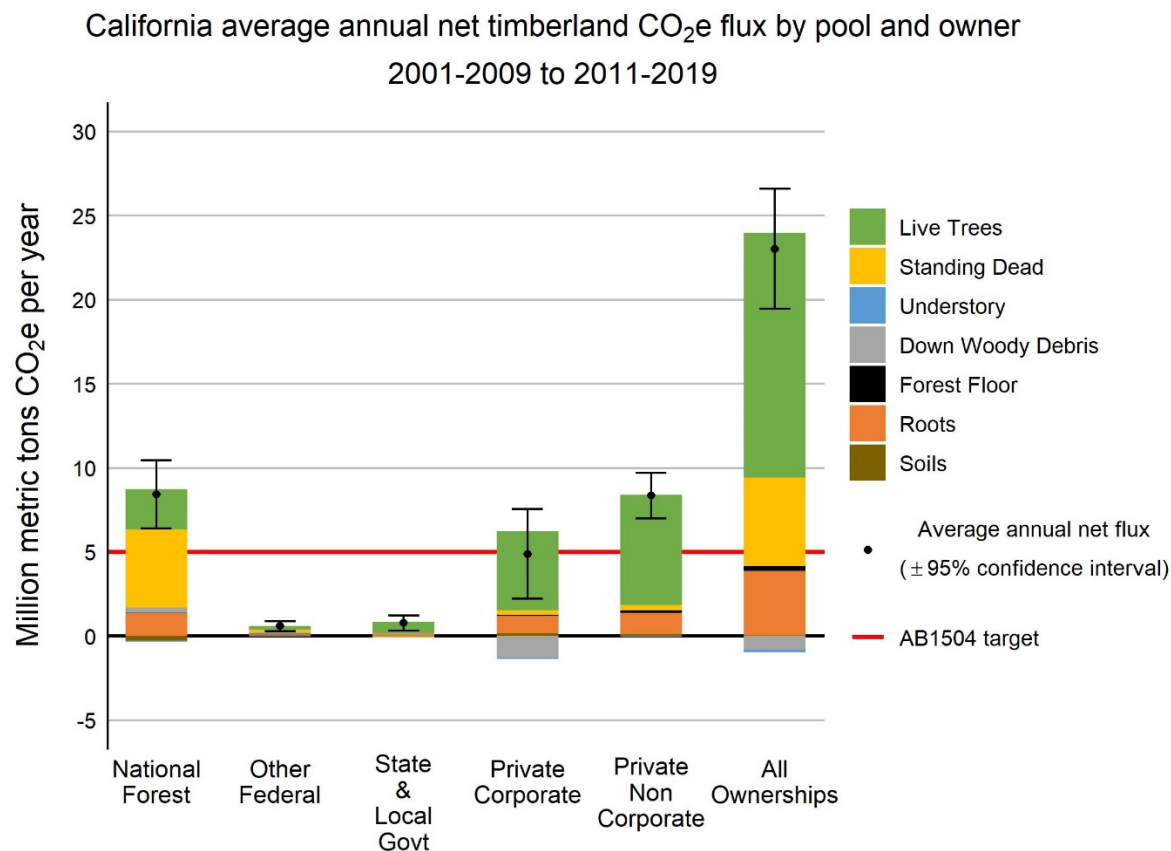


Figure 4.3. California average annual net timberland carbon flux by pool and ownership, 2001-2009 to 2011-2019 (MMT CO₂e/yr). Estimates exclude emissions from land-use changes (-1.0 MMT CO₂e/yr) and non-CO₂ greenhouse gases (-0.6 MMT CO₂e/yr). Roots includes belowground live and dead tree roots. Understory includes aboveground and belowground understory vegetation. Error bars represent the 95% confidence interval of estimated net flux.

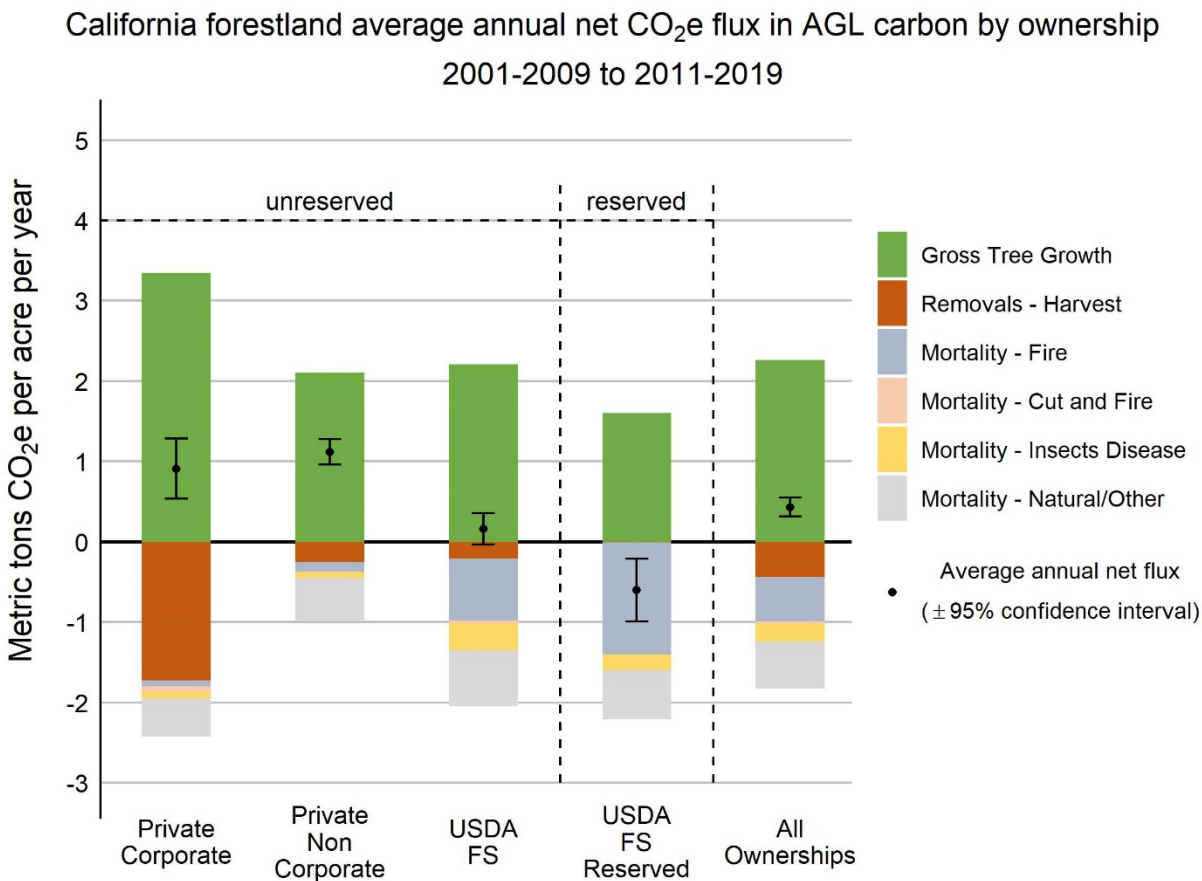


Figure 4.4a. Average annual net CO₂e flux per acre in aboveground live tree carbon pool from growth, mortality and harvest by ownership and land status of California’s forests (MT CO₂e/acre/year), 2001-2009 to 2011-2019. The “all ownerships” category includes all other state and federal agencies managing fewer overall acres of forest land in California. The error bars represent the 95% confidence interval of net change. Figure derived from Appendix 2, Table B12.

Table 4.4A Forest land average annual growth, mortality, harvest, and net change per acre in aboveground live tree carbon pool by ownership and land status of California's forests, 2001-2009 to 2011-2019. The all ownerships category includes all other state and federal agencies managing fewer overall acres of forest land in California.

	Unreserved Forest Land			Reserved Forest Land	All Forest Land
	Private - Corporate	Private - Noncorporate	National Forests	National Forests	All Ownerships
	Mean	Mean	Mean	Mean	Mean
	<i>Metric tons CO₂e/acre/year</i>				
Gross tree growth	3.35	2.11	2.21	1.60	2.26
Removals - harvest	-1.73	-0.25	-0.21	-0.01	-0.44
Mortality - fire killed	-0.07	-0.12	-0.77	-1.39	-0.55
Mortality - cut and fire	-0.07	-0.01	-0.04	--	-0.03
Mortality - insects and disease	-0.08	-0.07	-0.33	-0.20	-0.22
Mortality - natural/other	-0.48	-0.54	-0.70	-0.61	-0.59
Net change (\pm 95% Confidence Interval)	0.91 (0.37)	1.12 (0.16)	0.16 (0.20)	-0.6 (0.39)	0.43 (0.12)

Mortality - Cut and fire: plots where tree mortality has occurred due to both harvest and fire.

California timberland/reserved productive forestland average annual net CO₂e flux in AGL carbon by ownership: 2001-2009 to 2011-2019

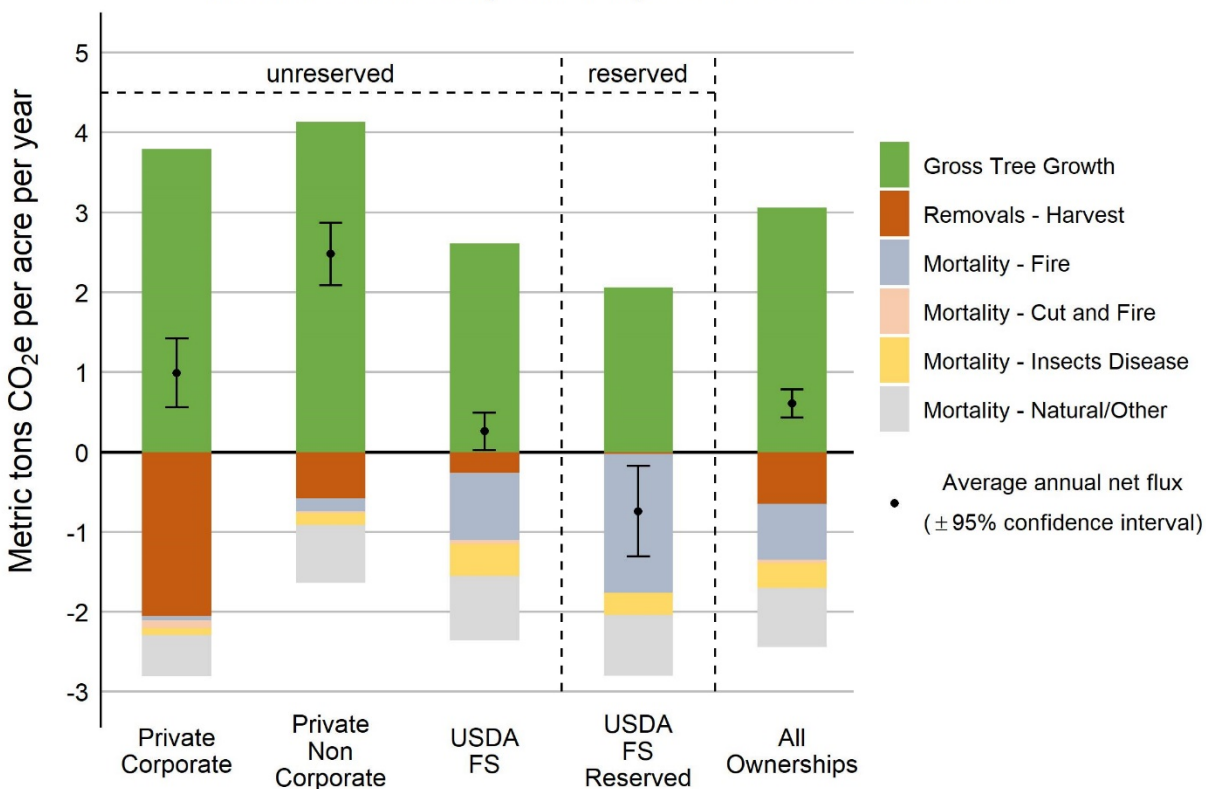


Figure 4.4b. Timberland (productive forest land) average annual net CO₂e flux per acre in aboveground live tree carbon pool from growth, mortality and harvest by ownership and land status of California's productive forests (MT CO₂e/acre/year), 2001-2009 to 2011-2019. The "all ownerships" category includes all other state and federal agencies managing fewer overall acres of forest land in California. The error bars represent the 95% confidence interval of net change. Figure derived from Appendix 2, Table B12.

Table 4.4B Timberland (productive forest land) average annual growth, mortality, harvest, and net change per acre in aboveground live tree carbon pool by ownership and land status of California's productive forests, 2001-2009 to 2011-2019. The all ownerships category includes all other state and federal agencies managing fewer overall acres of forest land in California.

	Timberland			Reserved Productive Forest Land	All Productive Forest Land
	Private - Corporate	Private - Noncorporate	National Forests	National Forests	All Ownerships
	Mean	Mean	Mean	Mean	Mean
	<i>Metric tons CO₂e/acre/year</i>				
Gross tree growth	3.79	4.13	2.61	2.06	3.06
Removals - harvest	-2.05	-0.58	-0.26	-0.02	-0.65
Mortality - fire killed	-0.06	-0.16	-0.84	-1.74	-0.70
Mortality - cut and fire	-0.09	-0.02	-0.05	--	-0.04
Mortality - insects and disease	-0.09	-0.15	-0.40	-0.28	-0.31
Mortality - natural/other	-0.52	-0.73	-0.81	-0.76	-0.74
Net change	0.99 (0.43)	2.48 (0.39)	0.26 (0.24)	-0.74 (0.57)	0.61 (0.18)
95% CI					

Mortality - Cut and fire: plots where tree mortality has occurred due to both harvest and fire.

California (ecoregions) average annual net forestland CO₂e flux by pool and owner
2001-2009 to 2011-2019

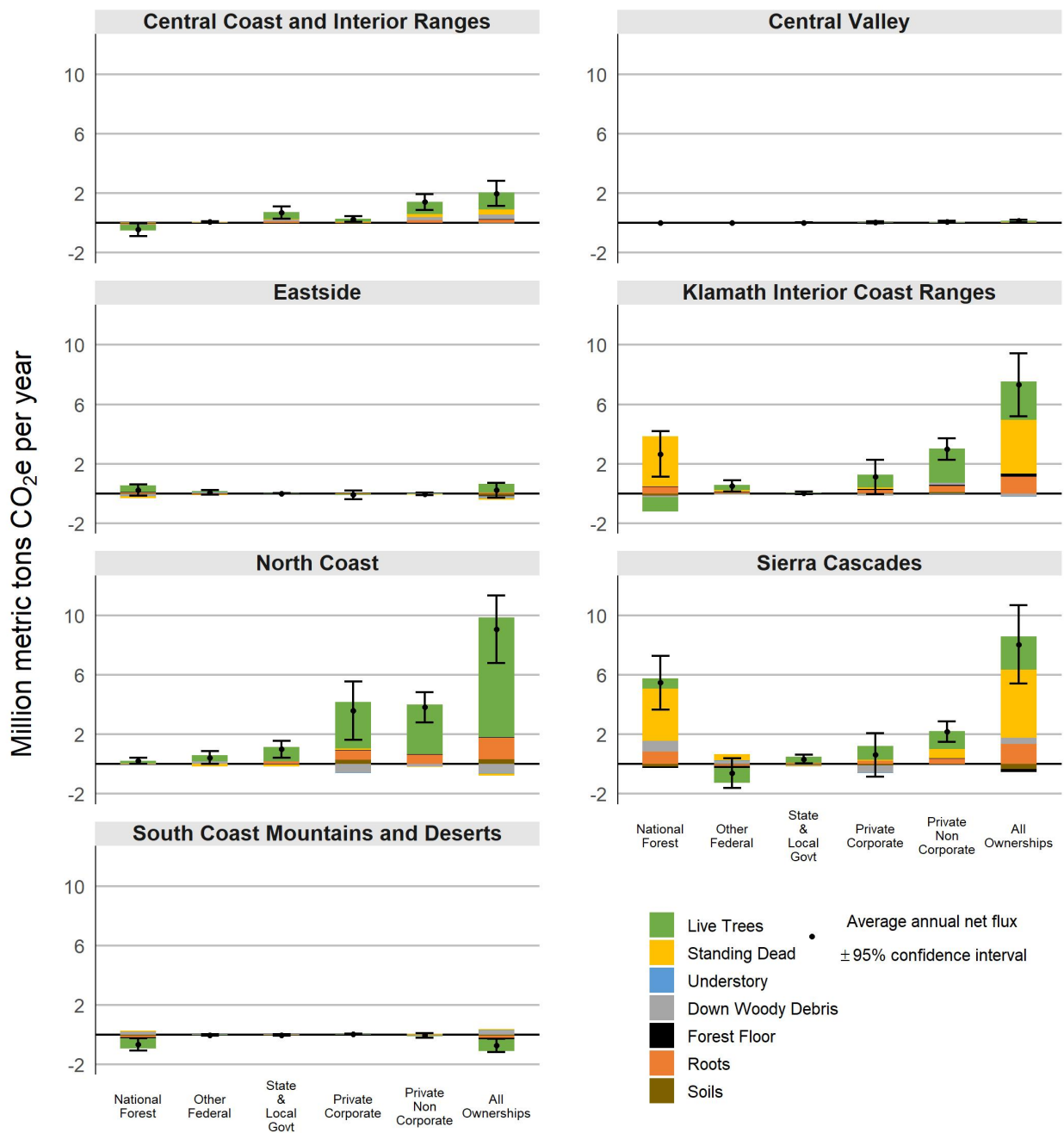


Figure 4.6a. California Ecoregions average annual net forestland carbon flux by pool and ownership, 2001-2009 to 2011-2019 (MMT CO₂e/yr). Estimates exclude emissions from land-use changes. Roots includes belowground live and dead tree roots. Understory includes aboveground and belowground understory vegetation. Error bars represent the 95% confidence interval of estimated net flux. Figure derived from Appendix 2, Tables B2-8. For more visible scale, individual ecoregion figures replicated in Appendix 1. **Note, this is a new figure that was not included in the previous full report.*

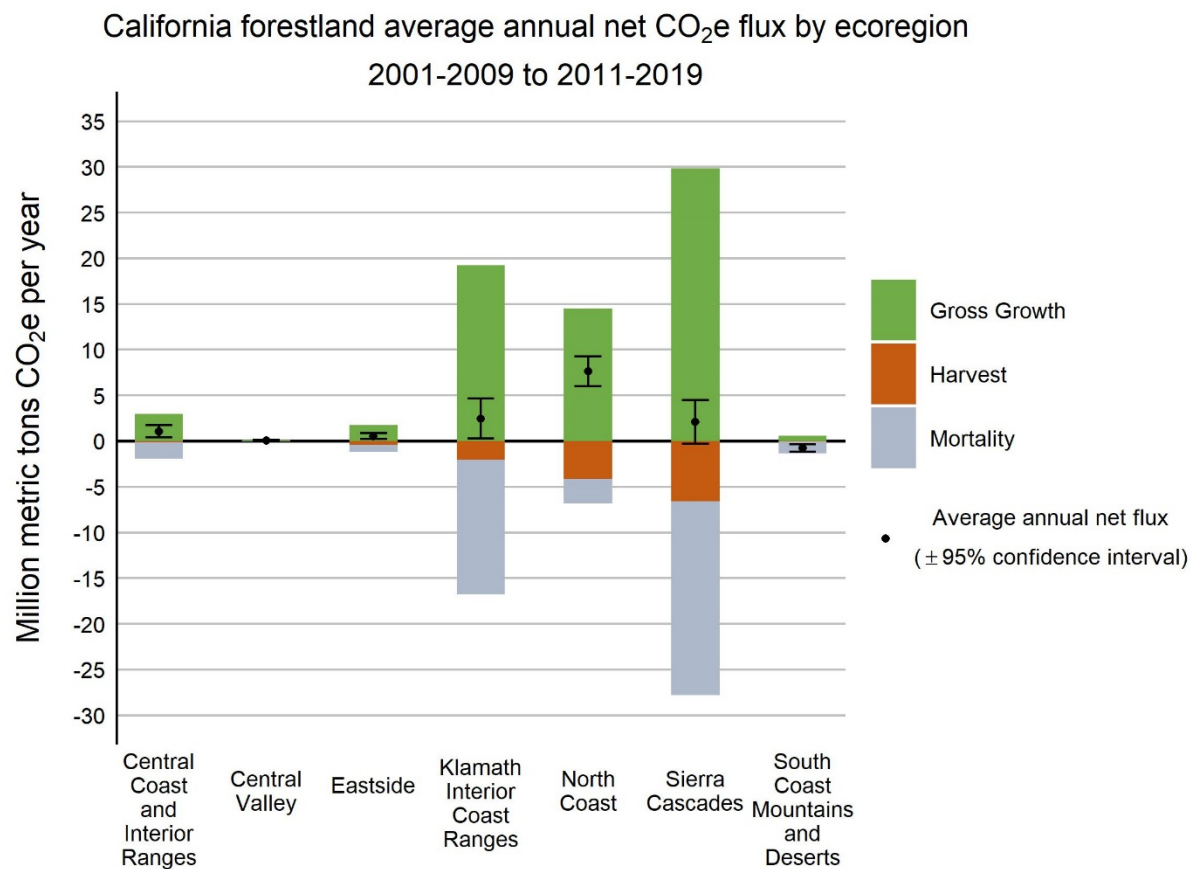


Figure 4.6b. Average annual net CO₂e flux in live trees from growth, harvest and mortality by ecological region, 2001-2009 to 2011-2019 (MMT CO₂e/yr). Error bars represent the 95% confidence interval of estimated net flux. Figure derived from Table 4.5/Appendix 2, Tables B2-B8.

**Note, figure number changed from 4.6 in the previous full report (Christensen et al. 2019) to 4.6b in this data update.*

Table 4.5 Average annual net CO₂e flux in live trees from growth, harvest, mortality by ecological region, 2001-2009 to 2011-2019. Compare to Appendix 2, Tables B2-B8.

	Gross Growth		Harvest		Mortality		Net Flux	
	Total	SE	Total	SE	Total	SE	Total	SE
	<i>Thousand Metric Tons CO₂ equivalent per year</i>							
Central Coast and Interior Ranges	2,967	321	-134	67	-1,765	291	1,068	346
Central Valley	119	47	-4	4	-55	23	60	33
Eastside	1,729	128	-408	105	-785	127	536	158
Klamath Interior Coast Ranges	19,266	536	-2,032	417	-14,764	1,013	2,470	1,121
North Coast	14,503	673	-4,169	719	-2,676	281	7,658	836
Sierra Cascades	29,879	593	-6,576	672	-21,223	1,025	2,080	1,221
South Coast Mountains and Deserts	566	66	-67	34	-1,279	223	-780	207
All California	69,028	804	-13,389	1,051	-42,547	1,485	13,091	1,861

Table 4.6a: Average Annual Net Change in Carbon Stocks for Aboveground Pools on Forest Land by Disturbance, Forest Land Status and Owner Group, 2001-2009 to 2011-2019: All California. See also Appendix 2, Table B9.1

	USDA Forest Service								Other Public				Private				Total			
	Timberland		Reserved		Low productive, unreserved		Total		Other federal		State and local govt.		Corporate		Non Corporate		Total		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>thousand metric tons CO2 equivalent per year</i>																				
Cut																				
Mortality	-251	77	-5	5	-4	3	-260	77			-14	12	-363	61	-209	62	-572	86	-847	116
Cut	-1,098	214	-3	3	--	--	-1,100	214	-29	21	-70	54	-7,669	859	-1,115	319	-8,784	910	-9,983	936
Gross Growth	1,032	154	13	14	1	1	1,046	155	20	15	34	23	3,527	323	916	191	4,443	369	5,544	401
Net Live	-316	185	5	5	-3	2	-314	185	-9	19	-50	36	-4,505	723	-408	267	-4,913	768	-5,286	791
Standing Dead Change	-195	120	--	--	1	1	-193	120	-3	3	-2	7	-23	98	55	54	32	112	-166	165
Dead Woody Debris Change	32	85	-1	1	9	7	40	85	27	21	9	22	-299	243	60	114	-239	269	-164	283
Total Net ¹	-581	244	4	5	7	6	-569	245	12	15	-54	49	-5,875	991	-389	349	-6,264	1,048	-6,875	1,078
Cut and Fire																				
Mortality	-423	139	--	--	--	--	-423	139	--	--	-16	17	-387	124	-47	35	-434	129	-873	191
Cut	-733	242	--	--	--	--	-733	242	--	--	-99	103	-885	334	--	--	-885	334	-1,716	426
Gross Growth	314	88	--	--	--	--	314	88	--	--	50	52	174	51	6	5	180	51	544	114
Net Live	-842	258	--	--	--	--	-842	258	--	--	-65	68	-1,097	374	-41	30	-1,138	376	-2,045	461
Standing Dead Change	82	61	--	--	--	--	82	61	--	--	-1	1	44	43	-6	6	38	44	119	75
Dead Woody Debris Change	-47	35	--	--	--	--	-47	35	--	--	11	12	53	74	-7	6	46	75	10	83
Total Net ¹	-985	314	--	--	--	--	-985	314	--	--	-65	68	-1,242	426	-61	45	-1,302	428	-2,352	535
Fire																				
Mortality	-7,300	889	-5,524	813	-1,086	258	-13,911	1,227	-1,600	421	-211	104	-366	100	-784	188	-1,151	212	-16,872	1,318
Cut	-187	165	-30	32	-1	1	-218	168	--	--	--	--	-10	9	-40	22	-50	24	-268	170
Gross Growth	2,074	207	1,280	154	200	43	3,554	262	475	95	36	26	239	61	323	72	561	94	4,627	295
Net Live	-5,413	820	-4,274	729	-887	232	-10,574	1,118	-1,125	379	-175	86	-138	83	-501	157	-639	178	-12,513	1,196
Standing Dead Change	3,349	576	2,021	488	332	159	5,702	770	155	325	47	27	7	58	271	95	278	111	6,182	844
Dead Woody Debris Change	-397	202	-3	149	-30	46	-431	255	-17	97	22	36	-108	42	150	80	41	90	-384	290
Total Net ¹	-3,045	567	-2,829	526	-738	176	-6,612	790	-1,225	394	-136	88	-258	124	-143	102	-401	160	-8,374	902

Table 4.6a: Average Annual Net Change in Carbon Stocks for Aboveground Pools on Forest Land by Disturbance, Forest Land Status and Owner Group, 2001-2009 to 2011-2019: All California. See also Appendix 2, Table B9.1 (Continued)

	USDA Forest Service								Other Public				Private				Total			
	Timberland		Reserved		Low productive, unreserved		Total		Other federal		State and local govt.		Corporate		Non Corporate		Total		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>thousand metric tons CO2 equivalent per year</i>																				
Insect and Disease																				
Mortality	-3,483	357	-778	191	-142	60	-4,403	409	-1,245	371	-173	75	-430	89	-459	112	-888	143	-6,710	575
Cut	-66	29	--	--	--	--	-66	29	--	--	--	--	-39	16	-36	21	-75	26	-142	39
Gross Growth	4,259	307	671	121	63	21	4,993	330	612	115	267	96	1,042	173	971	194	2,013	259	7,885	444
Net Live	710	300	-107	159	-79	45	523	342	-632	314	93	67	573	122	476	162	1,049	203	1,033	511
Standing Dead Change	594	256	150	130	47	39	791	289	483	277	-122	93	30	47	76	91	106	103	1,257	423
Dead Woody Debris Change	294	204	244	152	-1	27	537	255	198	99	36	85	-25	56	18	56	-7	79	764	297
Total Net ¹	1,895	332	318	174	-43	41	2,170	377	12	173	19	136	713	150	688	182	1,401	236	3,602	495
Other cut and weather																				
Mortality	-1,087	229	-435	151	-158	51	-1,681	278	-157	67	-7	5	-280	80	-536	123	-816	146	-2,660	321
Cut	-124	51	-15	9	--	--	-139	52	-20	17	-4	3	-251	77	-277	83	-528	112	-691	125
Gross Growth	1,149	170	270	67	81	30	1,500	185	175	56	45	33	866	172	908	176	1,774	244	3,494	313
Net Live	-62	196	-181	125	-77	34	-320	234	-1	59	35	30	335	130	94	135	429	188	144	308
Standing Dead Change	555	185	150	114	98	38	803	220	36	22	-5	11	60	22	205	94	264	96	1,098	241
Dead Woody Debris Change	9	105	109	97	25	30	144	146	41	32	22	22	-167	115	143	107	-24	157	183	218
Total Net ¹	586	162	62	107	45	36	693	197	86	67	60	36	317	173	519	160	835	235	1,674	316
Less than 25% disturbed																				
Mortality	-5,692	388	-1,994	209	-346	61	-8,032	440	-1,043	164	-826	207	-1,925	155	-2,759	183	-4,684	232	-14,585	562
Cut	-21	10	-1		-1	1	-23	10			-4	3	-398	94	-165	55	-563	109	-590	109
Gross Growth	13,879	460	4,152	271	859	107	18,890	509	2,598	225	2,774	305	12,024	554	10,648	493	22,673	631	46,935	881
Net Live	8,166	461	2,157	250	512	96	10,835	518	1,555	211	1,944	231	9,701	507	7,724	447	17,426	595	31,760	840
Standing Dead Change	263	309	-445	200	-76	41	-258	370	-260	128	-32	60	264	146	216	160	480	216	-70	452
Dead Woody Debris Change	411	331	109	228	-58	80	461	410	163	234	-54	137	-668	267	-117	205	-786	336	-215	595
Total Net ¹	10,783	588	2,174	356	431	125	13,388	679	1,769	324	2,274	291	11,666	680	9,573	583	21,239	804	38,670	1,129
Total																				
Mortality	-18,236	1,001	-8,737	828	-1,736	275	-28,709	1,310	-4,045	548	-1,248	230	-3,751	247	-4,794	312	-8,545	382	-42,547	1,485
Cut	-2,229	366	-48	33	-2	2	-2,279	368	-49	26	-176	115	-9,252	928	-1,634	341	-10,885	978	-13,389	1,051
Gross Growth	22,707	445	6,385	276	1,203	117	30,296	476	3,881	225	3,207	279	17,872	574	13,772	532	31,644	585	69,028	804
Net Live	2,243	1,070	-2,399	807	-536	259	-692	1,357	-213	547	1,782	276	4,870	990	7,344	571	12,214	1,100	13,091	1,861
Standing Dead Change	4,648	732	1,876	555	402	172	6,926	930	411	439	-115	113	383	196	816	232	1,198	304	8,421	1,077
Dead Woody Debris Change	302	459	458	326	-55	100	704	572	412	273	47	169	-1,215	388	246	277	-969	477	194	812
Total Net ¹	8,654	969	-271	675	-298	226	8,084	1,190	653	541	2,098	353	5,321	1,315	10,188	708	15,509	1,441	26,344	1,978

¹Total Net value includes change from roots and understory vegetation which are not enumerated in this table. Excludes changes in SOC and forest floor pools.

Table 4.6b: Average annual carbon (CO₂e) flux in live trees from growth, harvest, mortality, 2001-2009 to 2011-2019: COUNTY. See also Appendix 2, Table B9.2.

County	Standing Live														All Pools ¹			
	Gross Growth		Harvest		Fire killed		Cut and fire		Insects and disease		Natural/other		Total Mortality		Net Flux		Net Flux	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>Thousand Metric Tons CO₂ equivalent per year</i>																	
Alameda	96	33	-3	4	--	--	--	--	--	--	-30	17	-30	17	62	26	87	41
Alpine	444	78	-2	2	-7	7	--	--	-138	47	-156	51	-302	67	140	54	167	129
Amador	396	106	-34	19	-41	31	-114	107	-19	21	-139	61	-312	128	50	119	3	133
Butte	1,774	240	-240	115	-145	66	-32	33	-32	12	-558	104	-767	128	768	215	1,041	278
Calaveras	1,296	196	-219	88	-214	131	--	--	-29	17	-386	159	-629	206	448	227	765	198
Colusa	135	36	-1	1	-222	119	--	--	--	--	-57	31	-279	122	-144	109	-43	70
Contra Costa	71	26	-5	5	--	--	--	--	--	--	-14	11	-14	11	52	25	71	33
Del Norte	2,614	374	-371	219	-294	132	--	--	-15	6	-742	214	-1,051	250	1,192	332	1,201	410
El Dorado	2,237	207	-486	190	-390	201	-77	68	-275	76	-542	90	-1,284	231	467	315	977	352
Fresno	1,686	162	-169	99	-792	348	-73	42	-215	120	-1,271	241	-2,351	431	-834	427	209	306
Glenn	376	79	-1	1	-112	98	--	--	-23	15	-124	42	-259	108	116	89	142	121
Humboldt	9,001	572	-2,385	574	-283	144	--	--	-42	23	-1,706	190	-2,032	236	4,584	672	4,733	1,008
Imperial			--	--	--	--	--	--	--	--	--	--	--	--			-1	1
Inyo	87	13	--	--	--	--	--	--	-2	1	-20	8	-22	9	66	12	1	46
Kern	374	62	--	--	-108	49	--	--	-75	46	-297	81	-480	103	-106	100	5	141
Lake	663	114	-10	7	-381	186	-23	24	-4	6	-151	81	-559	205	95	202	325	164
Lassen	1,693	156	-450	118	-114	57	-7	10	-112	36	-290	59	-523	88	720	157	526	245
Los Angeles	92	25	-5	5	-197	99	--	--	--	--	-47	21	-244	101	-157	89	-113	102
Madera	1,152	154	-24	17	-193	141	--	--	-563	216	-863	198	-1,618	315	-490	286	564	236
Marin	409	158	-4	3	--	--	--	--	-213	117	-15	11	-228	117	176	160	115	179
Mariposa	1,209	163	-71	46	-603	200	--	--	-443	153	-341	101	-1,387	263	-249	220	171	263
Mendocino	6,896	488	-1,666	427	-197	94	-18	17	-141	48	-978	117	-1,335	157	3,895	536	5,212	663
Merced	56	38	--	--	--	--	--	--	--	--	-14	11	-14	11	43	27	38	37
Modoc	1,198	118	-337	90	-96	56	-136	75	-141	47	-172	43	-545	111	316	132	262	188
Mono	330	53	-31	28	-31	22	--	--	-72	43	-104	28	-206	55	92	64	183	116
Monterey	430	83	-1	1	-596	253	--	--	-38	38	-209	71	-843	264	-413	230	-316	235
Napa	359	90	-28	27	-56	45	--	--	--	--	-154	50	-210	67	121	77	243	96
Nevada	994	161	-192	94	--	--	--	--	-163	70	-201	60	-364	91	437	132	696	171
Orange	3	3	--	--	--	--	--	--	--	--	--	--	--	--	3	3	8	8
Placer	1,683	206	-280	167	-103	58	-5	6	-248	77	-481	110	-838	145	565	222	919	310
Plumas	3,765	264	-968	282	-1,566	449	-67	41	-405	103	-698	108	-2,736	470	61	542	492	597
Riverside	48	21	--	--	-3	5	--	--	-67	40	-8	8	-78	41	-30	29	25	36

Table 4.6b: Average annual carbon (CO₂e) flux in live trees from growth, harvest, mortality, 2001-2009 to 2011-2019: COUNTY. See also Appendix 2, Table B9.2. (CONTINUED)

County	Standing Live														All Pools ¹			
	Gross Growth		Harvest		Fire killed		Cut and fire		Insects and disease		Natural/other		Total Mortality		Net Flux		Net Flux	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>Thousand Metric Tons CO₂ equivalent per year</i>																	
Sacramento	6	5	--	--	--	--	--	--	--	--	-1	1	-1	1	5	4	6	5
San Benito	106	41	--	--	--	--	--	--	--	--	-33	19	-33	19	73	39	119	46
San Bernardino	207	43	-49	31	-240	127	-18	17	-13	10	-152	51	-423	134	-265	138	-358	152
San Diego	48	18	-11	11	-56	30	--	--	--	--	-34	19	-91	36	-54	37	-69	48
San Joaquin	20	20	-4	4	--	--	--	--	--	--	-13	13	-13	13	3	4	15	14
San Luis Obispo	184	37	--	--	--	--	--	--	--	--	-123	38	-123	38	62	33	252	54
San Mateo	451	158	-47	39	--	--	--	--	-56	51	-139	55	-194	79	209	128	454	179
Santa Barbara	87	26	--	--	-250	122	--	--	--	--	-65	24	-315	124	-228	103	-169	99
Santa Clara	301	70	--	--	-24	23	--	--	--	--	-152	49	-176	54	126	55	164	59
Santa Cruz	1,269	261	-78	54	-6	6	--	--	-61	41	-244	65	-310	77	881	212	1,117	298
Shasta	4,438	309	-1,790	412	-959	235	-152	72	-213	60	-1,019	155	-2,342	308	306	548	1,420	615
Sierra	1,246	156	-418	172	-52	63	--	--	-212	78	-183	43	-448	110	381	161	124	254
Siskiyou	6,811	329	-1,534	361	-3,518	721	-107	60	-628	126	-1,446	158	-5,699	732	-422	790	1,207	738
Solano	10	7	--	--	--	--	--	--	--	--					10	7	8	6
Sonoma	1,576	239	-130	68	-15	11	--	--	-162	68	-215	49	-393	85	1,054	186	1,375	262
Stanislaus	30	9	--	--	-4	4	--	--	--	--	-11	8	-15	9	15	7	15	27
Sutter	19	18	--	--	--	--	--	--	--	--	-1	1	-1	1	19	17	23	21
Tehama	1,690	180	-246	111	-279	143	--	--	-165	60	-609	130	-1,052	194	392	192	722	271
Trinity	4,643	279	-632	216	-2,656	561	-17	12	-277	87	-1,428	183	-4,377	574	-365	600	1,084	546
Tulare	1,523	156	-4	4	-728	236	--	--	-388	155	-684	131	-1,800	294	-281	275	322	287
Tuolumne	2,183	185	-360	160	-1,173	386	-7	6	-1,056	366	-593	124	-2,829	533	-1,006	506	-762	490
Ventura	64	16	-2	3	-113	58	--	--	-7	6	-19	11	-139	59	-78	55	-70	58
Yolo	25	9	--	--	--	--	--	--	--	--	-14	10	-14	10	12	9	18	13
Yuba	521	133	-105	83	-57	50	-20	22	--	--	-146	50	-222	74	194	113	316	162
All counties	69,028	804	-13,389	1,051	-16,872	1,318	-873	191	-6,710	575	-18,092	631	-42,547	1,485	13,091	1,861	26,043	2,071

¹ Excludes change from SOC and forest floor pools.

Table 4.6c: Average annual carbon (CO₂e) flux in live trees from growth, harvest, mortality, 2001-2009 to 2011-2019: NATIONAL FOREST. See also Appendix 2, Table B9.3.

	Standing Live																All Pools ¹		
	Gross Growth		Harvest		Fire killed		Cut and fire		Insects and disease		Natural/other		Total Mortality		Net Flux		Net Flux		
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	
<i>Thousand Metric Tons CO₂ equivalent per year</i>																			
Region 5																			
Angeles	99	27	-5	5	-197	99	--	--	--	--	-47	21	-244	101	-151	90	-115	103	
Cleveland	7	6	--	--	-12	10	--	--	--	--	--	--	-12	10	-5	10	4	11	
Eldorado	1,557	101	-275	177	-414	204	-124	107	-264	71	-408	82	-1,210	237	72	295	302	305	
Inyo	378	56	-31	28	-1	2	--	--	-38	25	-176	66	-215	71	132	74	162	155	
Klamath	2,822	135	-232	105	-2,975	699	-89	57	-406	105	-732	104	-4,202	697	-1,612	676	-236	494	
Lake Tahoe Basin	215	54	-21	23	--	--	-4	5	-57	34	-88	63	-149	71	45	59	42	86	
Lassen	2,370	129	-291	108	-1,024	357	-26	18	-303	83	-688	118	-2,040	374	38	366	617	362	
Los Padres	336	61	--	--	-784	267	--	--	-7	6	-140	39	-932	268	-596	237	-570	241	
Mendocino	1,638	115	-13	7	-1,007	350	--	--	-119	47	-452	95	-1,577	356	48	345	461	311	
Modoc	1,080	83	-108	50	-50	30	-46	41	-178	49	-223	53	-496	83	476	96	378	143	
Plumas	3,100	162	-405	193	-1,114	326	-20	22	-334	97	-681	104	-2,149	341	545	406	919	469	
San Bernardino	176	39	-46	31	-204	123	-18	17	-74	41	-132	49	-428	135	-298	136	-387	146	
Sequoia	1,213	103	-38	32	-998	263	--	--	-256	128	-618	135	-1,872	286	-697	304	-10	307	
Shasta-Trinity	5,114	210	-305	100	-2,347	468	-7	6	-320	90	-1,677	189	-4,351	475	458	504	2,325	436	
Sierra	2,209	146	-147	95	-834	353	-73	42	-718	238	-1,721	261	-3,346	459	-1,283	468	430	321	
Six Rivers	3,318	165	-36	40	-1,340	296	-11	11	-131	60	-926	150	-2,408	316	874	325	1,181	360	
Stanislaus	1,984	143	-124	83	-479	177	-7	6	-606	173	-639	182	-1,731	272	130	276	488	276	
Tahoe	2,074	134	-199	103	-79	65	--	--	-480	102	-422	83	-980	131	894	170	1,171	252	
Toiyabe	313	45	--	--	-38	23	--	--	-114	48	-91	33	-242	59	70	59	69	109	
Total	30,002	473	-2,277	368	-13,897	1,227	-423	139	-4,403	409	-9,862	499	-28,585	1,310	-860	1,355	7,230	1,259	
Region 6																			
Rogue River / Siskiyou	294	69	-2	4	-14	23	--	--	-1	2	-109	48	-124	51	168	71	274	89	
Total	294	69	-2	4	-14	23	--	--	-1	2	-109	48	-124	51	168	71	274	89	
All National Forests	30,296	476	-2,279	368	-13,911	1,227	-423	139	-4,403	409	-9,972	501	-28,709	1,310	-692	1,357	7,504	1,263	

¹ Excludes change from SOC and forest floor pools

Table 4.6d: Annual Net Change in Carbon Stocks for Aboveground Pools on Forest Land by Disturbance, Forest Land Status and Owner Group, 2001-2009 to 2011-2019: Coastal Forest Practice District. See also Appendix 2, Table B9.4.

	USDA Forest Service								Other Public				Private				Total			
	Timberland		Reserved		Low productive, unreserved		Total		Other federal		State and local govt.		Corporate		Non Corporate		Total		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>thousand metric tons CO2 equivalent per year</i>																				
Cut																				
Mortality	--	--	--	--	--	--	--	--	--	--	--	--	-96	30	-81	34	-177	45	-177	45
Cut	--	--	--	--	--	--	--	--	--	--	--	--	-2,561	617	-418	199	-2,979	647	-2,979	647
Gross Growth	--	--	--	--	--	--	--	--	--	--	--	--	853	181	413	147	1,266	231	1,266	231
Net Live	--	--	--	--	--	--	--	--	--	--	--	--	-1,804	523	-86	179	-1,890	552	-1,890	552
Standing Dead Change	--	--	--	--	--	--	--	--	--	--	--	--	-16	46	22	24	6	52	6	52
Dead Woody Debris Change	--	--	--	--	--	--	--	--	--	--	--	--	-282	210	-34	79	-315	225	-315	225
Total Net ¹	--	--	--	--	--	--	--	--	--	--	--	--	-2,563	774	-114	218	-2,676	804	-2,676	804
Cut and Fire																				
Mortality	--	--	--	--	--	--	--	--	--	--	-16	17	-2	2	--	--	-2	2	-18	17
Cut	--	--	--	--	--	--	--	--	--	--	-99	103	-61	55	--	--	-61	55	-160	117
Gross Growth	--	--	--	--	--	--	--	--	--	--	50	52	13	11	--	--	13	11	63	53
Net Live	--	--	--	--	--	--	--	--	--	--	-65	68	-50	46	--	--	-50	46	-115	82
Standing Dead Change	--	--	--	--	--	--	--	--	--	--	-1	1	1	1	--	--	1	1		1
Dead Woody Debris Change	--	--	--	--	--	--	--	--	--	--	11	12	10	7	--	--	10	7	22	14
Total Net ¹	--	--	--	--	--	--	--	--	--	--	-65	68	-50	51	--	--	-50	51	-115	85
Fire																				
Mortality	-228	108	-294	132	--	--	-522	171	--	--	-69	72	-63	46	-45	33	-108	57	-699	194
Cut	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Gross Growth	93	40	140	51	--	--	233	65	--	--	24	25	60	37	58	33	118	49	375	85
Net Live	-135	80	-154	93	--	--	-288	123	--	--	-45	47	-3	32	13	34	10	47	-324	140
Standing Dead Change	44	36	11	49	--	--	54	60	--	--	9	9	23	23	13	8	36	24	99	66
Dead Woody Debris Change	43	36	76	58	--	--	119	68	--	--	-22	23	-44	28	30	27	-14	39	82	82
Total Net ¹	-92	51	-106	113	--	--	-198	124	--	--	-67	70	-18	41	63	38	45	56	-220	153

Table 4.6d: Annual Net Change in Carbon Stocks for Aboveground Pools on Forest Land by Disturbance, Forest Land Status and Owner Group, 2001-2009 to 2011-2019: Coastal Forest Practice District. See also Appendix 2, Table B9.4. (CONTINUED)

	USDA Forest Service						Other Public				Private				Total					
	Timberland		Reserved		Low productive, unreserved		Total		Other federal		State and local govt.		Corporate		Non Corporate		Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE		
<i>thousand metric tons CO2 equivalent per year</i>																				
Insect and Disease																				
Mortality	-23	20	-13	6	--	--	-36	21	-56	51	-115	69	-91	39	-198	72	-288	82	-495	120
Cut	--	--	--	--	--	--	--	--	--	--	--	--	-11	11	-14	10	-25	15	-25	15
Gross Growth	62	36	50	26	--	--	112	44	7	6	73	44	205	96	457	163	663	189	855	199
Net Live	40	23	37	21	--	--	77	31	-49	44	-42	29	104	58	246	137	349	149	336	161
Standing Dead Change	-1	1	-6	5	--	--	-7	5	9	8	-96	87	7	19	31	28	38	33	-56	94
Dead Woody Debris Change	-6	6	-20	21	--	--	-26	22	28	25	76	78	-1	8	21	39	20	40	97	94
Total Net ¹	35	23	23	15	--	--	58	27	-15	14	-79	111	146	85	348	143	494	166	458	202
Other cut and weather																				
Mortality	-52	33	-9	9	--	--	-61	34	--	--	--	--	-83	56	-37	23	-121	61	-181	70
Cut	--	--	--	--	--	--	--	--	--	--	--	--	-103	63	-47	25	-150	68	-150	68
Gross Growth	123	63	15	13	--	--	138	64	--	--	--	--	262	109	225	92	487	142	625	156
Net Live	71	47	6	5	--	--	77	47	--	--	--	--	76	83	141	62	217	104	294	114
Standing Dead Change	16	14	4	4	--	--	20	14	--	--	--	--	15	7	5	4	19	8	39	17
Dead Woody Debris Change	12	14	2	2	--	--	14	14	--	--	--	--	-35	46	33	37	-2	59	11	60
Total Net ¹	120	64	13	11	--	--	133	65	--	--	--	--	82	123	215	95	297	155	430	168
Less than 25% disturbed																				
Mortality	-405	102	-222	70	--	--	-627	121	-244	84	-500	203	-685	96	-780	106	-1,465	141	-2,836	287
Cut	--	--	--	--	--	--	--	--	--	--	-3	3	-220	79	-49	32	-269	85	-272	85
Gross Growth	1,112	175	762	154	--	--	1,873	218	806	160	1,752	302	5,077	461	4,135	380	9,212	557	13,644	689
Net Live	706	150	540	135	--	--	1,246	194	562	122	1,249	216	4,173	409	3,306	333	7,479	494	10,536	586
Standing Dead Change	4	58	32	34	--	--	37	67	-55	48	20	32	179	99	73	55	253	113	254	144
Dead Woody Debris Change	-64	51	-46	50	--	--	-110	72	-73	128	-43	62	-411	209	-227	128	-638	245	-864	292
Total Net ¹	821	176	621	162	--	--	1,441	230	540	194	1,511	269	5,052	552	3,913	410	8,965	652	12,458	766
Total																				
Mortality	-708	150	-538	146	--	--	-1,245	207	-299	101	-701	218	-1,020	126	-1,141	136	-2,161	183	-4,406	365
Cut	--	--	--	--	--	--	--	--	--	--	-102	103	-2,955	633	-528	204	-3,483	663	-3,585	671
Gross Growth	1,390	185	967	156	--	--	2,357	223	813	160	1,900	292	6,471	499	5,288	428	11,759	601	16,828	723
Net Live	682	177	429	170	--	--	1,111	239	513	129	1,097	251	2,495	680	3,620	397	6,115	762	8,837	847
Standing Dead Change	63	69	41	60	--	--	105	91	-46	49	-68	92	209	114	144	67	352	132	343	191
Dead Woody Debris Change	-16	65	12	85	--	--	-4	107	-45	131	22	105	-763	298	-177	163	-940	339	-968	393
Total Net ¹	884	193	551	200	--	--	1,434	269	525	193	1,300	329	2,649	973	4,426	484	7,075	1,063	10,334	1,160

¹ Total Net value includes change from roots and understory vegetation which are not enumerated in this table. Excludes change from SOC and forest floor pools.

Table 4.6e: Annual Net Change in Carbon Stocks for Aboveground Pools on Forest Land by Disturbance, Forest Land Status and Owner Group, 2001-2009 to 2011-2019: Northern Forest Practice District. See also Appendix 2, Table B9.5.

	USDA Forest Service								Other Public				Private								
	Timberland		Reserved		Low productive, unreserved		Total		Other federal		State and local govt.		Corporate		Non Corporate		Total		Total		
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	
	<i>thousand metric tons CO2 equivalent per year</i>																				
Cut																					
Mortality	-69	33	--	--	--	--	-69	33	--	--	--	--	-157	42	-15	8	-172	43	-241	54	
Cut	-646	160	--	--	--	--	-646	160	-7	6	--	--	-3,166	466	-239	89	-3,405	474	-4,058	500	
Gross Growth	586	120	--	--	--	--	586	120	17	14	--	--	1,551	190	212	76	1,763	203	2,366	236	
Net Live	-128	104	--	--	--	--	-128	104	10	8	--	--	-1,772	402	-42	57	-1,814	406	-1,933	419	
Standing Dead Change	-55	29	--	--	--	--	-55	29	--	--	--	--	-67	36	-19	15	-86	39	-142	48	
Dead Woody Debris Change	-13	42	--	--	--	--	-13	42	5	4	--	--	-84	90	-5	19	-89	92	-97	101	
Total Net ¹	-218	164	--	--	--	--	-218	164	17	14	--	--	-2,303	525	-87	74	-2,390	531	-2,591	556	
Cut and Fire																					
Mortality	-96	47	--	--	--	--	-96	47	--	--	--	--	-208	85	-24	25	-232	88	-328	100	
Cut	-264	175	--	--	--	--	-264	175	--	--	--	--	-598	274	--	--	-598	274	-862	325	
Gross Growth	88	39	--	--	--	--	88	39	--	--	--	--	92	37	4	4	96	37	184	53	
Net Live	-272	172	--	--	--	--	-272	172	--	--	--	--	-714	289	-20	21	-734	290	-1,006	337	
Standing Dead Change	43	44	--	--	--	--	43	44	--	--	--	--	45	42	-6	6	40	43	83	61	
Dead Woody Debris Change	-25	23	--	--	--	--	-25	23	--	--	--	--	42	71	-6	6	37	71	12	74	
Total Net ¹	-305	212	--	--	--	--	-305	212	--	--	--	--	-776	312	-35	37	-811	314	-1,117	379	
Fire																					
Mortality	-3,915	628	-2,487	606	-192	92	-6,594	877	-142	83	-40	44	-172	66	-156	67	-328	93	-7,104	887	
Cut	-11	11	--	--	-1	1	-12	11	--	--	--	--	-10	9	-25	19	-36	21	-48	24	
Gross Growth	1,324	173	656	125	60	22	2,040	215	127	51	4	5	113	42	103	46	215	62	2,387	229	
Net Live	-2,601	552	-1,831	545	-133	83	-4,565	780	-16	62	-35	39	-70	60	-79	38	-149	71	-4,765	786	
Standing Dead Change	1,684	415	1,006	382	40	37	2,729	565	27	23	10	11	-4	47	10	38	7	60	2,773	569	
Dead Woody Debris Change	-273	146	-54	94	4	23	-323	176	17	21	11	12	-48	29	55	53	7	60	-288	187	
Total Net ¹	-1,430	373	-1,102	360	-113	78	-2,645	523	27	56	-20	22	-130	102	-31	59	-161	117	-2,798	540	

Table 4.6e: Annual Net Change in Carbon Stocks for Aboveground Pools on Forest Land by Disturbance, Forest Land Status and Owner Group, 2001-2009 to 2011-2019: Northern Forest Practice District. See also Appendix 2, Table B9.5. (CONTINUED)

	USDA Forest Service								Other Public				Private				Total			
	Timberland		Reserved		Low productive, unreserved		Total		Other federal		State and local govt.		Corporate		Non Corporate		Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE		
<i>thousand metric tons CO2 equivalent per year</i>																				
Insect and Disease																				
Mortality	-1,389	183	-194	68	-6	7	-1,589	196	-71	33	-4	6	-213	59	-88	25	-301	64	-1,965	209
Cut	-45	24	--	--	--	--	-45	24	--	--	--	--	-22	11	--	--	-22	11	-67	27
Gross Growth	2,198	225	239	77	12	10	2,449	238	70	34	9	14	656	129	239	57	895	140	3,423	279
Net Live	764	168	45	47	6	12	814	175	-1	30	6	8	421	103	151	43	572	111	1,391	210
Standing Dead Change	-60	121	39	40	-1	6	-22	128	27	14	2	4	-8	23	-21	38	-29	44	-21	136
Dead Woody Debris Change	258	128	10	39	-16	20	251	135	1	21			-78	46	-16	28	-93	54	159	147
Total Net ¹	1,153	229	119	61	-9	18	1,263	238	40	38	10	14	424	111	153	70	577	131	1,889	275
Other cut and weather																				
Mortality	-202	70	-18	10	--	--	-220	70					-122	50	-2	1	-123	50	-344	86
Cut	-82	46	-8	8	--	--	-90	47	--	--	-2	2	-94	35	-55	43	-149	56	-240	73
Gross Growth	489	113	32	17		2	521	115	41	38	23	29	389	109	121	48	510	119	1,095	172
Net Live	205	86	6	19		2	212	88	41	37	21	26	174	84	64	50	238	98	511	140
Standing Dead Change	-20	47	-36	38			-57	60	4	4	-8	10	26	16	-8	6	18	17	-44	64
Dead Woody Debris Change	21	91	21	21	-3	3	39	93	-5	5			-150	104	-5	23	-154	106	-121	141
Total Net ¹	247	110	-15	41	-3	5	229	117	52	48	15	19	83	100	63	69	145	122	441	177
Less than 25% disturbed																				
Mortality	-2,608	225	-695	124	-98	32	-3,401	256	-259	107	-71	25	-716	101	-786	98	-1,502	140	-5,233	313
Cut	-19	10	--	--	-1	1	-20	10					-119	37	-25	17	-144	40	-165	42
Gross Growth	7,623	375	1,241	161	377	75	9,241	404	503	104	259	74	3,970	297	2,636	230	6,606	364	16,609	558
Net Live	4,996	333	546	126	278	61	5,820	356	244	114	188	65	3,136	262	1,824	196	4,960	320	11,212	496
Standing Dead Change	48	152	-186	141	-43	21	-181	208	79	40	18	11	103	80	30	91	133	121	49	245
Dead Woody Debris Change	-3	253	107	77	-25	64	79	272	55	37	-22	14	-108	121	8	101	-100	157	12	316
Total Net ¹	6,227	457	563	224	231	81	7,020	506	470	118	231	75	3,875	341	2,270	279	6,146	432	13,867	679
Total																				
Mortality	-8,279	676	-3,394	607	-296	98	-11,969	911	-473	140	-115	51	-1,587	167	-1,072	130	-2,659	209	-15,215	946
Cut	-1,066	243	-8	8	-2	2	-1,076	243	-8	6	-2	2	-4,008	538	-345	103	-4,353	546	-5,439	598
Gross Growth	12,309	415	2,167	191	449	78	14,926	450	758	126	296	81	6,771	357	3,314	253	10,085	417	26,064	629
Net Live	2,964	704	-1,234	565	151	104	1,881	908	277	139	179	80	1,176	566	1,898	220	3,074	604	5,410	1,101
Standing Dead Change	1,639	464	822	412	-4	43	2,456	622	137	49	22	19	95	112	-13	107	82	154	2,698	643
Dead Woody Debris Change	-34	335	83	129	-39	71	9	366	72	48	-11	18	-426	203	32	121	-393	237	-323	439
Total Net ¹	5,672	686	-435	425	106	114	5,343	809	607	145	235	82	1,172	708	2,333	316	3,505	770	9,690	1,129

¹ Total Net value includes change from roots and understory vegetation which are not enumerated in this table. Excludes change from SOC and forest floor pools.

Table 4.6f: Annual Net Change in Carbon Stocks for Aboveground Pools on Forest Land by Disturbance, Forest Land Status and Owner Group, 2001-2009 to 2011-2019: Southern Forest Practice District. See also Appendix 2, Table B9.6

	USDA Forest Service						Other Public				Private				Total		Total			
	Timberland		Reserved		Low productive, unreserved		Total		Other federal		State and local govt.		Corporate						Non Corporate	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE		
<i>thousand metric tons CO2 equivalent per year</i>																				
Cut																				
Mortality	-49	41	-5	5	--	--	-54	42	--	--	-4	3	-26	17	-68	45	-94	48	-152	63
Cut	-42	22	-3	3	--	--	-44	22	--	--	--	--	-450	173	-39	19	-490	174	-534	175
Gross Growth	187	63	13	14	--	--	200	64	--	--	3	2	271	88	118	74	390	115	592	133
Net Live	96	53	5	5	--	--	101	53	--	--	-1	1	-205	135	11	25	-194	138	-94	148
Standing Dead Change	-44	47	--	--	--	--	-44	47	--	--	3	2	-10	11	51	41	41	43		64
Dead Woody Debris Change	-62	44	-1	1	--	--	-63	44	--	--	-9	7	1	34	49	52	50	62	-21	76
Total Net ¹	1	93	4	5	--	--	6	94	--	--	-6	5	-258	156	129	85	-129	177	-129	200
Cut and Fire																				
Mortality	-181	113	--	--	--	--	-181	113	--	--	--	--	-68	68	--	--	-68	68	-249	132
Cut	-90	44	--	--	--	--	-90	44	--	--	--	--	-15	14	--	--	-15	14	-105	46
Gross Growth	92	47	--	--	--	--	92	47	--	--	--	--	34	28	--	--	34	28	126	54
Net Live	-178	102	--	--	--	--	-178	102	--	--	--	--	-49	65	--	--	-49	65	-227	121
Standing Dead Change	7	34	--	--	--	--	7	34	--	--	--	--	6	5	--	--	6	5	12	34
Dead Woody Debris Change	-7	17	--	--	--	--	-7	17	--	--	--	--	1		--	--	1		-7	17
Total Net ¹	-210	113	--	--	--	--	-210	113	--	--	--	--	-52	75	--	--	-52	75	-261	135
Fire																				
Mortality	-962	278	-1,556	381	-422	131	-2,940	487	-845	338	-90	60	-2	2	-306	105	-308	105	-4,182	605
Cut	-13	13	--	--	--	--	-13	13	--	--	--	--	--	--	-11	11	-11	11	-25	17
Gross Growth	213	61	266	65	64	27	543	93	256	79	6	5	2	2	65	23	67	23	873	125
Net Live	-763	244	-1,289	336	-357	118	-2,410	428	-588	300	-83	60	-1	1	-252	90	-252	90	-3,334	534
Standing Dead Change	477	222	559	183	71	83	1,107	299	-34	291	25	23	--	--	94	39	94	39	1,192	419
Dead Woody Debris Change	-98	64	-50	73	-29	32	-177	102	-52	80	32	25			12	29	12	29	-184	135
Total Net ¹	-457	157	-938	265	-391	134	-1,785	334	-823	344	-40	47	-1	1	-189	68	-190	68	-2,838	486

Table 4.6f: Annual Net Change in Carbon Stocks for Aboveground Pools on Forest Land by Disturbance, Forest Land Status and Owner Group, 2001-2009 to 2011-2019: Southern Forest Practice District. See also Appendix 2, Table B9.6 (CONTINUED)

	USDA Forest Service						Other Public				Private				Total					
	Timberland		Reserved		Low productive, unreserved		Total		Other federal		State and local govt.		Corporate		Non Corporate		Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE		
<i>thousand metric tons CO2 equivalent per year</i>																				
Insect and Disease																				
Mortality	-818	184	-400	138	-109	53	-1,326	236	-746	342	-48	31	-5	4	-94	64	-99	64	-2,219	422
Cut	-14	13	--	--	--	--	-14	13	--	--	--	--	--	--	-21	18	-21	18	-35	22
Gross Growth	959	155	231	65	42	16	1,231	169	297	82	170	85	38	25	141	64	180	68	1,878	217
Net Live	126	158	-169	112	-67	39	-109	198	-449	297	122	60	33	25	26	60	59	65	-376	367
Standing Dead Change	112	130	32	66	39	37	183	150	416	265	-21	29	-18	17	15	67	-3	69	575	314
Dead Woody Debris Change	29	137	240	134	25	15	294	192	88	71	-17	22	18	18	-22	19	-4	26	362	208
Total Net ¹	324	187	86	135	-12	29	398	233	33	93	112	74	36	23	27	47	64	52	606	266
Other cut and weather																				
Mortality	-480	157	-211	98	-88	38	-779	188	-87	55	-6	5	-7	5	-316	101	-323	101	-1,195	221
Cut	-15	16	-7	5	--	--	-22	16	--	--	--	--	--	--	-45	25	-45	25	-67	30
Gross Growth	301	81	182	62	57	27	539	105	63	28	3	2	8	6	242	64	250	64	855	126
Net Live	-195	102	-37	69	-31	20	-262	124	-25	30	-3	5	1	7	-119	96	-118	96	-408	160
Standing Dead Change	306	126	97	93	55	30	458	158	21	19	4	4	-1	1	186	84	185	84	669	180
Dead Woody Debris Change	-61	32	29	39	19	26	-13	56	14	21	23	22	-8	10	143	81	135	82	159	104
Total Net ¹	53	48	96	66	46	30	194	87	7	32	24	24	-8	9	221	85	213	86	438	128
Less than 25% disturbed																				
Mortality	-1,369	251	-654	121	-155	39	-2,177	280	-273	64	-84	26	-88	28	-671	93	-758	97	-3,292	304
Cut	-2	2	--	--	--	--	-3	2	--	--	--	--	-54	38	-75	38	-129	54	-132	54
Gross Growth	2,487	225	1,252	128	313	66	4,052	264	793	106	271	77	662	147	1,522	148	2,184	207	7,300	359
Net Live	1,116	249	598	135	157	68	1,872	291	520	106	187	73	520	136	777	130	1,297	187	3,876	368
Standing Dead Change	286	174	-171	102	-28	32	87	204	-247	94	-47	38	46	20	169	53	215	56	8	234
Dead Woody Debris Change	12	119	58	167	14	40	83	209	130	143	69	39	-72	30	-91	91	-164	95	119	273
Total Net ¹	1,766	267	590	168	172	83	2,528	326	466	196	224	85	611	156	1,022	172	1,633	231	4,850	453
Total																				
Mortality	-3,859	432	-2,826	421	-773	151	-7,458	613	-1,951	474	-230	71	-197	75	-1,454	188	-1,651	202	-11,289	802
Cut	-177	55	-10	6	--	--	-187	55	--	--	--	--	-519	184	-192	53	-711	192	-898	200
Gross Growth	4,238	242	1,944	149	476	76	6,658	286	1,409	140	453	113	1,016	175	2,089	186	3,105	252	11,624	420
Net Live	202	424	-892	387	-297	144	-987	590	-542	440	222	111	300	204	443	196	743	283	-564	796
Standing Dead Change	1,144	338	518	239	137	100	1,799	423	157	402	-36	53	23	29	515	131	538	134	2,457	600
Dead Woody Debris Change	-186	204	275	228	29	58	118	312	181	176	99	57	-60	51	90	137	30	146	427	391
Total Net ¹	1,478	390	-162	349	-185	165	1,131	548	-318	411	314	122	329	232	1,210	224	1,539	321	2,666	767

¹ Total Net value includes change from roots and understory vegetation which are not enumerated in this table. Excludes change from SOC and forest floor pools.

Table 4.7 - Annual Net Emissions of Non-CO2 Greenhouse Gases from Fire, 2001-2009 to 2011-2019: All California. CO2 values are from table 4.6 and were used to calculate the other gases. See also Appendix 2, Table F1.

	Public						Private						Total	
	National Forest		Other Federal		State and local govt.		Corporate		Non Corporate		Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>thousand metric tons CO2 equivalent per year</i>														
Cut and Fire														
CO2	-985	314	--	--	-65	68	-1,242	426	-61	45	-1,302	428	-2,352	535
CH4	-32	10	--	--	-2	2	-40	14	-2	1	-42	14	-75	17
N2O	-21	7	--	--	-1	1	-26	9	-1	1	-27	9	-50	11
Fire														
CO2	-6,623	790	-1,225	394	-136	88	-258	124	-143	102	-401	160	-8,385	901
CH4	-212	25	-39	13	-4	3	-8	4	-5	3	-13	5	-268	29
N2O	-140	17	-26	8	-3	2	-5	3	-3	2	-8	3	-177	19
Total Fire														
CO2	-7,608	847	-1,225	394	-201	108	-1,499	438	-204	125	-1,703	455	-10,737	1,056
CH4	-244	27	-39	13	-6	3	-48	14	-7	4	-55	15	-344	34
N2O	-161	18	-26	8	-4	2	-32	9	-4	3	-36	10	-227	22

Table 4.8: Annual change in forest land area to/from other IPCC land-use classes in California, 2001-9 to 2011-19. See also Appendix table E1.

	Timberland ¹		Other forest ²		Reserved		All forest land	
	Total	SE	Total	SE	Total	SE	Total	SE
<i>Acres per year</i>								
Forest to nonforest:								
Cropland	651	589	3,058	1,652			3,709	1,749
Developed	7,952	1,843	4,522	1,208	451	248	12,924	2,214
Grassland	2,529	1,587	10,778	3,411	449	480	13,756	3,790
Other	26	25			7	7	33	26
Water	516	374	107	70	107	102	730	394
Total	11,674	2,522	18,465	3,977	1,014	550	31,153	4,732
Nonforest to forest:								
Cropland	161	96					161	96
Developed	3,773	855	784	273	32	26	4,589	898
Grassland	3,320	1,135	3,627	1,250	179	103	7,126	1,691
Other			67	97			67	97
Water	12	14	235	203			248	204
Total	7,267	1,421	4,713	1,299	212	106	12,191	1,928
Net change to forest land:								
Cropland	-489	596	-3,058	1,652			-3,548	1,751
Developed	-4,179	2,030	-3,738	1,230	-418	249	-8,335	2,388
Grassland	790	1,952	-7,151	3,632	-270	491	-6,630	4,150
Other	-26	25	67	97	-7	7	34	101
Water	-504	374	128	215	-107	102	-483	444
Total	-4,407	2,896	-13,752	4,181	-803	560	-18,962	5,112

Note: Totals may be off because of rounding

¹ Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

² Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table 4.9: Annual change in carbon pools due to change in land use between forest and nonforest in California, 2001-9 to 2011-19. See also Appendix table E2.

Carbon pool	Forest to nonforest		Nonforest to forest		Net change	
	Total	SE	Total	SE	Total	SE
	<i>Thousand metric tons CO2 equivalent per year</i>					
Live tree	-1,505	231	1,074	185	-430	297
Standing dead	-148	83	38	9	-110	84
Down wood	-181	40	85	27	-96	48
Understory veg	-255	33	139	23	-116	40
Litter	-382	57	173	25	-209	62
Soil*	-4,135	535	1,764	273	-2,371	602
All pools	-2,470	330	1,509	229	-961	403

* No changes in landuse involved cultivated land so soil organic carbon change was assumed to be zero (Ogle et al. 2003)

Table 4.10: Area of forest land remaining forest land by ownership group and region in California, 2010-2019. Table derived from Appendix 2, Tables A10-A16.

	Public		Private		All Ownerships	
	Total	SE	Total	SE	Total	SE
<i>Thousand acres</i>						
Central Coast and Interior Ranges:						
Unreserved forest land	244	35	1,048	72	1,292	81
Reserved forest land	455	45	--	--	455	45
Total forest land	698	56	1,048	72	1,747	91
Central Valley:						
Unreserved forest land	4	3	91	22	95	22
Reserved forest land	6	5	--	--	6	5
Total forest land	10	6	91	22	101	23
Eastside:						
Unreserved forest land	1,832	79	518	55	2,350	96
Reserved forest land	298	42	--	--	298	42
Total forest land	2,130	88	518	55	2,648	103
Klamath Interior Coast Ranges:						
Unreserved forest land	3,249	88	3,145	122	6,393	150
Reserved forest land	1,788	75	--	--	1,788	75
Total forest land	5,036	98	3,145	122	8,181	156
North Coast:						
Unreserved forest land	162	30	2,217	88	2,379	93
Reserved forest land	308	38	--	--	308	38
Total forest land	470	43	2,217	88	2,687	98
Sierra Cascades:						
Unreserved forest land	6,606	108	5,201	137	11,807	172
Reserved forest land	3,109	95	--	--	3,109	95
Total forest land	9,715	133	5,201	137	14,916	188
South Coast Mountains and Deserts:						
Unreserved forest land	574	49	264	38	838	61
Reserved forest land	490	52	--	--	490	52
Total forest land	1,064	70	264	38	1,328	79
All California:						
Unreserved forest land	12,671	139	12,483	135	25,154	186
Reserved forest land	6,453	127	--	--	6,453	127
Total forest land	19,124	150	12,483	135	31,607	192

Table 4.11: Area of Forest Land by Forest Type, Owner Group and Forest Land Status, 2010-2019: All California. See also Appendix 2, Table A17.

Forest type group	USDA Forest Service		Other federal		State and local government		Private corporate		Private non-corporate		All owners											
	Timberland	Other forest land	Timberland	Other forest land	Timberland	Other forest land	Timberland	Other forest land	Timberland	Other forest land	Total	SE										
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE										
<i>thousand acres</i>																						
Softwoods:																						
California mixed conifer	4,063	115	1,035	67	47	17	353	40	28	13	54	17	1,699	82	5	5	432	49	--	--	7,715	164
Douglas-fir	183	29	178	30	22	11	36	14	29	12	33	14	327	41	--	--	361	44	--	--	1,168	75
Fir / spruce / mountain hemlock	1,138	75	389	47	--	--	184	32	10	8	11	8	191	32	--	--	67	20	--	--	1,990	102
Western Hemlock / Sitka spruce	--	--	--	--	--	--	1	1	1	1	1	1	21	12	--	--	3	3	--	--	27	12
Lodgepole pine	196	33	460	49	--	--	218	34	6	6	6	6	28	12	--	--	30	14	--	--	944	70
Pinyon / juniper	12	8	734	51	--	--	544	52	--	--	66	20	--	--	36	15	--	--	127	26	1,518	82
Ponderosa pine	1,238	75	217	35	19	10	57	18	3	4	17	10	552	53	4	3	256	37	1	1	2,364	107
Redwood	4	3	18	10	--	--	31	14	48	16	62	19	424	47	--	--	207	34	--	--	793	64
Western juniper	132	27	576	50	21	11	313	42	--	--	17	10	8	6	64	19	21	10	252	39	1,404	84
Western white pine	24	12	105	26	--	--	17	10	--	--	--	--	--	--	--	--	--	--	--	--	146	30
Other western softwoods	40	16	308	41	4	2	148	29	--	--	20	12	27	13	--	--	4	4	7	7	558	56
Total	7,030	112	4,022	107	112	25	1,900	80	125	25	287	37	3,277	99	108	25	1,381	81	387	47	18,628	199
Hardwoods:																						
Alder / maple	36	13	11	8	10	7	26	13	--	--	11	8	86	21	1	1	28	12	12	6	222	34
Aspen / birch	6	5	41	15	--	--	11	8	--	--	1	1	4	4	--	--	--	--	--	--	64	18
Elm / ash / cottonwood	--	--	3	4	--	--	1	1	--	--	9	6	--	--	2	2	--	--	23	10	39	13
Tanoak / laurel	188	32	255	38	17	9	52	18	13	8	142	28	462	50	20	10	545	53	95	23	1,789	93
Western oak	945	72	1,618	87	83	23	505	49	13	8	419	39	332	44	840	66	671	62	3,674	115	9,098	177
Woodland hardwoods	--	--	21	10	--	--	37	13	--	--	7	6	--	--	7	7	--	--	33	12	104	22
Exotic hardwoods	--	--	--	--	2	2	--	--	--	--	--	--	--	--	--	--	--	--	2	2	4	3
Other hardwoods	142	28	87	23	13	9	18	11	6	5	36	15	55	18	3	3	93	24	108	24	559	56
Total	1,317	83	2,036	95	126	27	649	55	32	13	625	45	938	70	873	67	1,337	82	3,946	116	11,879	195
Nonstocked	403	46	310	42	19	10	119	27	--	--	14	9	178	29			29	12	28	11	1,100	76
All forest types	8,750	106	6,367	126	257	37	2,668	88	156	28	926	52	4,393	104	981	72	2,747	105	4,361	124	31,607	192

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 500 acre were estimated.

Timberland: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

California average forest carbon stock by owner
2010-2019 (MMT C)

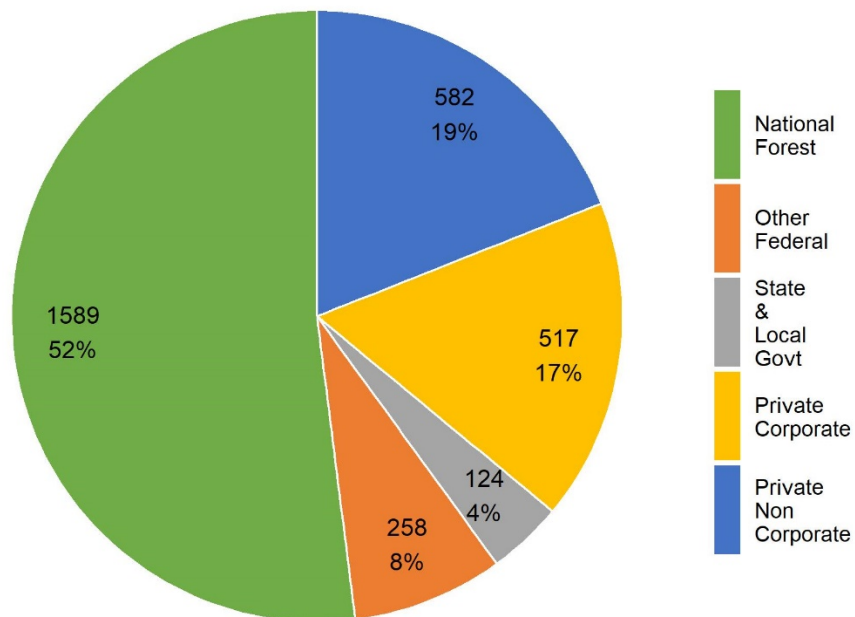


Figure 4.8. California statewide average forest carbon stock by owner, 2010-2019 (MMT C). Figure derived from Table 4.12.

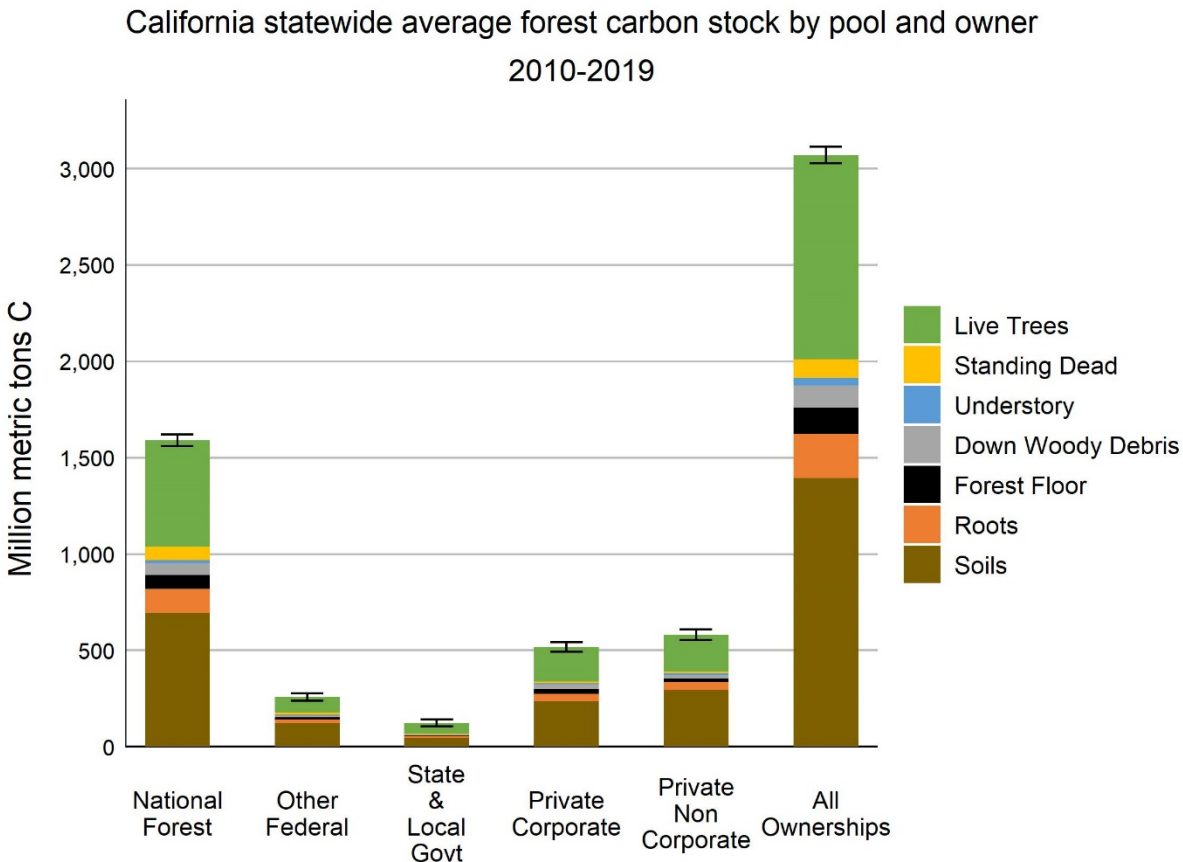


Figure 4.9. California statewide average forest carbon stock by pool and ownership, 2010-2019 (MMT C). Error bars represent 95% interval of estimated total stock for each ownership. Figure derived from table 4.12.

California statewide average forest carbon stock by land status and owner
2010-2019

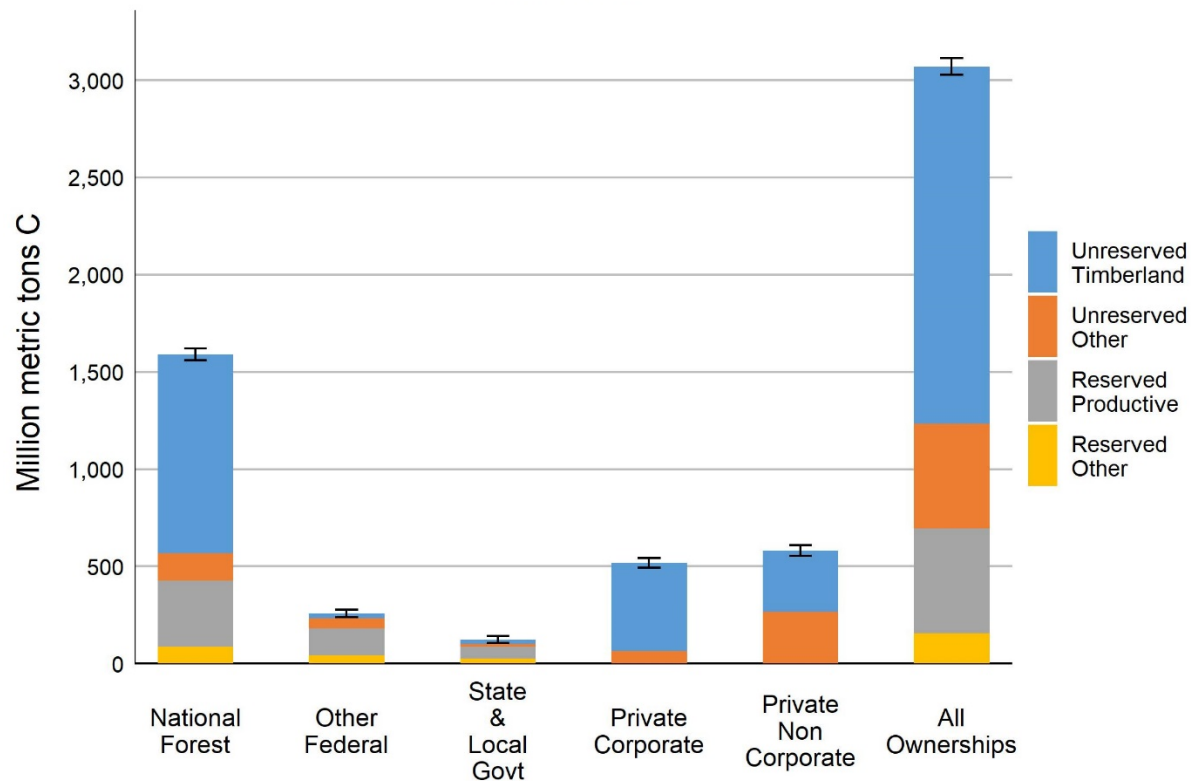


Figure 4.10. California statewide average forest carbon stock by land status and ownership, 2010-2019 (MMT C). Error bars represent 95% confidence interval of estimated total stock for each ownership.

Table 4.12b. Forest land carbon stock by county, 2010-2019: COUNTY

County	Live trees				Dead trees				Understory vegetation				Down wood		Forest Floor		Soil		Total C		Acres		
	Aboveground		Belowground		Aboveground		Belowground		Aboveground		Belowground		Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE													
	Million metric tons C ¹																						Total
																						Thousand acres	
Alameda	2.47	0.64	0.45	0.12	0.06	0.03	0.02	0.01	0.15	0.04	0.02	0.00	0.24	0.09	0.26	0.06	4.19	1.00	7.85	1.88	103.47	24.63	
Alpine	10.19	1.62	1.80	0.28	1.14	0.21	0.24	0.05	0.34	0.05	0.04	0.01	1.25	0.30	1.91	0.24	16.86	2.01	33.76	4.33	365.39	41.88	
Amador	5.13	1.24	0.99	0.23	0.66	0.27	0.14	0.05	0.26	0.05	0.03	0.01	0.54	0.14	0.78	0.16	9.46	1.62	17.99	3.39	205.89	35.00	
Butte	24.66	3.21	4.71	0.61	1.07	0.20	0.26	0.05	0.64	0.07	0.07	0.01	2.06	0.30	2.27	0.25	25.16	2.62	60.90	6.79	542.69	56.00	
Calaveras	15.10	2.28	2.83	0.42	1.24	0.43	0.26	0.07	0.65	0.07	0.07	0.01	1.32	0.21	2.03	0.27	23.73	2.53	47.24	5.61	531.45	55.93	
Colusa	2.37	0.68	0.47	0.13	0.49	0.23	0.12	0.05	0.34	0.06	0.04	0.01	0.35	0.10	0.42	0.08	9.77	1.61	14.36	2.52	218.00	35.68	
Contra Costa	1.24	0.42	0.23	0.08	0.00	0.00	0.00	0.00	0.09	0.03	0.01	0.00	0.07	0.03	0.15	0.05	2.74	0.81	4.52	1.34	57.55	16.95	
Del Norte	39.96	6.51	7.78	1.22	2.60	0.42	0.68	0.11	0.82	0.07	0.09	0.01	2.93	0.45	2.44	0.22	33.06	2.87	90.36	10.39	648.56	56.71	
El Dorado	34.25	2.90	6.48	0.54	3.35	0.50	0.74	0.11	0.73	0.07	0.08	0.01	3.54	0.44	4.81	0.34	37.45	2.58	91.43	6.42	805.18	56.23	
Fresno	35.03	3.12	6.57	0.56	5.71	0.89	1.26	0.18	1.25	0.10	0.14	0.01	3.70	0.47	5.52	0.36	50.25	3.01	109.44	7.23	1,185.66	70.88	
Glenn	6.42	1.41	1.26	0.27	0.54	0.21	0.12	0.04	0.26	0.04	0.03	0.00	0.52	0.13	0.81	0.15	9.37	1.54	19.32	3.44	212.91	34.42	
Humboldt	114.98	8.00	22.48	1.53	5.99	0.68	1.68	0.19	2.05	0.11	0.23	0.01	13.26	1.10	6.60	0.34	76.98	3.95	244.25	14.22	1,663.75	83.72	
Imperial	0.06	0.06	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.02	0.02	0.22	0.14	0.33	0.23	7.71	5.14	
Inyo	2.81	0.41	0.60	0.09	0.25	0.06	0.06	0.02	0.74	0.08	0.08	0.01	0.75	0.15	1.22	0.14	17.78	1.83	24.30	2.56	493.78	50.28	
Kern	9.36	1.24	1.79	0.24	1.06	0.20	0.23	0.05	1.12	0.10	0.12	0.01	1.68	0.25	1.67	0.18	30.09	2.59	47.14	4.34	758.25	64.69	
Lake	8.10	1.38	1.60	0.28	1.20	0.40	0.28	0.09	0.52	0.06	0.06	0.01	0.89	0.15	1.38	0.19	17.78	2.09	31.82	3.98	386.97	45.10	
Lassen	22.44	1.97	4.23	0.37	1.28	0.19	0.27	0.04	1.79	0.15	0.20	0.02	3.64	0.40	5.58	0.39	56.00	3.59	95.44	6.33	1,281.56	81.50	
Los Angeles	1.67	0.43	0.31	0.08	0.25	0.09	0.06	0.02	0.28	0.05	0.03	0.01	0.37	0.09	0.40	0.08	7.49	1.27	10.86	1.88	186.89	31.22	
Madera	23.12	2.95	4.13	0.51	4.14	0.77	0.89	0.16	0.69	0.07	0.08	0.01	3.11	0.59	3.14	0.32	26.51	2.38	65.80	6.69	654.07	58.73	
Marin	6.06	2.11	1.14	0.39	0.17	0.07	0.05	0.02	0.13	0.04	0.01	0.00	0.54	0.25	0.39	0.10	4.66	1.13	13.15	3.75	100.31	24.35	
Mariposa	18.81	2.46	3.54	0.45	3.21	0.59	0.70	0.12	0.78	0.08	0.09	0.01	2.77	0.43	2.87	0.32	27.83	2.60	60.61	6.32	650.19	60.54	
Mendocino	83.69	5.55	16.40	1.08	3.24	0.40	0.86	0.10	2.20	0.12	0.24	0.01	7.10	0.63	6.41	0.36	75.18	4.17	195.34	11.34	1,706.52	93.25	
Merced	0.37	0.18	0.07	0.03	0.01	0.01	0.00	0.00	0.05	0.02	0.01	0.00	0.02	0.01	0.06	0.03	1.08	0.45	1.67	0.68	30.49	12.51	
Modoc	16.88	1.66	3.07	0.29	1.18	0.21	0.25	0.04	2.06	0.14	0.23	0.02	2.45	0.25	4.28	0.27	52.94	2.95	83.33	4.98	1,254.19	69.06	
Mono	8.74	1.07	1.76	0.21	0.61	0.15	0.14	0.04	0.95	0.09	0.11	0.01	1.67	0.23	2.31	0.21	28.74	2.29	45.04	3.78	730.11	57.53	
Monterey	10.03	2.26	1.82	0.39	1.02	0.33	0.23	0.07	0.65	0.07	0.07	0.01	1.08	0.31	1.11	0.13	18.92	2.07	34.93	4.67	442.23	48.31	
Napa	5.54	1.18	1.09	0.23	0.25	0.08	0.06	0.02	0.31	0.05	0.03	0.01	0.41	0.18	0.56	0.10	8.72	1.43	16.97	2.96	210.61	34.34	
Nevada	14.28	2.11	2.75	0.41	0.98	0.25	0.23	0.06	0.41	0.05	0.05	0.01	1.32	0.31	1.87	0.23	17.94	2.15	39.83	5.03	402.33	47.54	
Orange	0.02	0.02	0.00	0.00	--	--	--	--	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.09	0.09	0.13	0.13	2.20	2.24	
Placer	23.26	2.80	4.35	0.53	2.01	0.34	0.45	0.07	0.66	0.07	0.07	0.01	2.24	0.33	3.07	0.31	29.94	2.85	66.05	6.65	620.98	58.62	
Plumas	55.32	3.76	10.22	0.69	6.26	0.88	1.41	0.18	1.21	0.07	0.13	0.01	6.71	0.53	8.89	0.46	64.08	3.08	154.22	8.21	1,434.88	67.59	
Riverside	0.96	0.40	0.19	0.07	0.07	0.04	0.01	0.01	0.12	0.03	0.01	0.00	0.26	0.11	0.25	0.08	3.44	0.89	5.30	1.49	92.22	23.40	

Table 4.12b. Forest land carbon stock by county, 2010-2019: COUNTY (CONTINUED)

County	Live trees				Dead trees				Understory vegetation				Down wood		Forest Floor		Soil		Total C		Acres			
	Aboveground		Belowground		Aboveground		Belowground		Aboveground		Belowground		Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>Million metric tons C¹</i>																							
Sacramento	0.19	0.14	0.04	0.03	--	--	--	--	0.02	0.01	0.00	0.00	0.00	0.00	0.02	0.01	0.58	0.36	0.85	0.56	14.06	8.51		
San Benito	1.61	0.59	0.28	0.10	0.04	0.03	0.01	0.01	0.19	0.04	0.02	0.00	0.11	0.04	0.25	0.06	4.94	1.09	7.44	1.73	119.08	26.23		
San Bernardino	5.09	0.98	0.93	0.17	1.01	0.26	0.24	0.06	0.66	0.07	0.07	0.01	1.38	0.25	1.14	0.15	17.80	1.76	28.33	3.06	474.61	46.93		
San Diego	1.24	0.50	0.22	0.09	0.20	0.08	0.05	0.02	0.20	0.04	0.02	0.00	0.28	0.10	0.25	0.06	4.47	0.91	6.93	1.52	126.25	25.38		
San Joaquin	0.37	0.27	0.07	0.05	0.01	0.01	0.00	0.00	0.02	0.01	0.00	0.00	0.03	0.02	0.04	0.02	0.58	0.35	1.13	0.74	14.74	8.31		
San Luis Obispo	3.71	0.76	0.66	0.13	0.18	0.06	0.04	0.01	0.35	0.05	0.04	0.01	0.46	0.12	0.45	0.07	9.01	1.37	14.88	2.36	227.05	33.88		
San Mateo	7.42	2.50	1.39	0.46	0.34	0.12	0.09	0.03	0.10	0.03	0.01	0.00	0.80	0.29	0.31	0.09	3.88	1.06	14.35	4.35	81.26	21.90		
Santa Barbara	2.07	0.49	0.36	0.09	0.43	0.14	0.09	0.03	0.39	0.06	0.04	0.01	0.36	0.09	0.42	0.07	9.04	1.34	13.21	2.01	247.44	36.31		
Santa Clara	5.87	1.13	1.07	0.21	0.24	0.09	0.07	0.03	0.36	0.05	0.04	0.01	0.54	0.12	0.70	0.11	8.94	1.35	17.84	2.81	247.33	36.94		
Santa Cruz	20.86	3.92	3.94	0.73	0.43	0.10	0.11	0.03	0.26	0.04	0.03	0.00	1.02	0.24	0.98	0.16	10.45	1.68	38.06	6.62	223.10	35.83		
Shasta	55.42	3.67	10.92	0.73	4.13	0.55	0.92	0.12	2.10	0.13	0.23	0.01	5.89	0.49	9.21	0.54	82.83	4.36	171.65	9.44	1,888.36	98.65		
Sierra	18.52	2.46	3.48	0.47	1.35	0.26	0.30	0.06	0.40	0.05	0.04	0.01	1.68	0.24	2.53	0.25	22.64	2.21	50.95	5.48	472.28	44.87		
Siskiyou	107.66	4.95	20.68	0.95	13.24	1.33	3.13	0.30	3.23	0.15	0.36	0.02	12.58	0.74	15.76	0.56	147.70	4.91	324.35	11.32	3,108.88	103.21		
Solano	0.39	0.21	0.07	0.04	0.00	0.00	0.00	0.00	0.04	0.02	0.00	0.00	0.05	0.03	0.05	0.02	1.03	0.52	1.62	0.77	25.58	12.57		
Sonoma	25.65	3.94	4.95	0.75	0.83	0.19	0.23	0.06	0.58	0.07	0.06	0.01	1.83	0.31	1.48	0.18	18.92	2.19	54.53	7.11	448.38	51.47		
Stanislaus	0.74	0.21	0.14	0.04	0.01	0.01	0.00	0.00	0.16	0.04	0.02	0.00	0.08	0.04	0.20	0.05	3.21	0.77	4.58	1.11	98.44	23.55		
Sutter	0.24	0.21	0.05	0.04	--	--	--	--	0.02	0.01	0.00	0.00	0.01	0.01	0.03	0.02	0.41	0.28	0.75	0.56	11.58	7.96		
Tehama	27.42	2.86	5.25	0.54	2.34	0.41	0.56	0.10	1.23	0.10	0.14	0.01	3.69	0.52	3.90	0.35	44.09	3.29	88.62	7.29	1,027.25	75.53		
Trinity	84.89	4.82	17.13	0.99	10.56	1.11	2.57	0.27	1.70	0.10	0.19	0.01	8.77	0.64	9.85	0.48	92.76	4.23	228.42	10.90	1,862.21	84.78		
Tulare	39.03	3.55	7.20	0.62	6.26	0.78	1.31	0.16	1.40	0.10	0.16	0.01	4.96	0.58	5.81	0.39	55.00	3.26	121.12	8.07	1,334.46	78.72		
Tuolumne	38.04	3.34	6.95	0.59	6.77	1.16	1.38	0.21	1.09	0.08	0.12	0.01	4.29	0.48	5.97	0.39	48.81	2.98	113.43	7.65	1,077.09	66.37		
Ventura	1.44	0.37	0.28	0.08	0.31	0.13	0.07	0.03	0.36	0.05	0.04	0.01	0.34	0.07	0.43	0.07	8.81	1.26	12.08	1.79	238.12	33.13		
Yolo	0.55	0.17	0.11	0.03	0.01	0.01	0.00	0.00	0.11	0.03	0.01	0.00	0.05	0.02	0.11	0.03	2.67	0.78	3.62	1.04	70.44	20.02		
Yuba	7.10	1.73	1.44	0.35	0.28	0.08	0.08	0.02	0.21	0.04	0.02	0.00	0.67	0.23	0.75	0.16	7.46	1.35	18.01	3.64	182.00	32.84		
All counties	1,058.80	13.28	202.75	2.47	99.03	2.93	22.95	0.64	37.43	0.36	4.16	0.04	116.68	2.15	134.13	0.92	1,394.51	8.41	3,070.45	22.27	31,606.96	191.68		

¹Multiply carbon (C) by 3.667 to calculate equivalent carbon dioxide (CO₂e)

Table 4.12c. Forest land carbon stock by National Forest, 2010-2019: NATIONAL FOREST.

	Live trees				Dead trees				Understory vegetation				Down wood		Forest Floor		Soil		Total C		Acres	
	Aboveground		Belowground		Aboveground		Belowground		Aboveground		Belowground		Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>Million metric tons C¹</i>																				<i>Thousand acres</i>	
Region 5																						
Angeles	1.88	0.57	0.32	0.09	0.21	0.08	0.05	0.02	0.21	0.04	0.02	0.00	0.38	0.10	0.39	0.09	6.27	1.19	9.74	1.91	149.57	28.02
Cleveland	0.15	0.11	0.02	0.02	0.03	0.03	0.01	0.00	0.02	0.01	0.00	0.00	0.01	0.01	0.03	0.02	0.54	0.34	0.81	0.48	14.43	8.66
Eldorado	27.62	1.84	5.18	0.36	3.38	0.50	0.74	0.10	0.45	0.04	0.05	0.00	2.67	0.32	3.63	0.18	28.34	1.55	72.06	3.86	561.84	30.68
Inyo	13.46	1.24	2.72	0.24	1.14	0.19	0.27	0.04	1.08	0.07	0.12	0.01	2.49	0.38	3.23	0.19	36.29	1.79	60.82	3.35	922.34	43.92
Klamath	55.86	2.98	10.86	0.58	9.68	1.21	2.27	0.27	1.32	0.07	0.15	0.01	6.44	0.51	6.87	0.21	65.12	1.90	158.56	5.61	1,337.87	36.99
Lake Tahoe Basin	4.75	1.50	0.82	0.25	0.49	0.19	0.11	0.04	0.10	0.02	0.01	0.00	0.46	0.14	0.64	0.11	4.70	0.74	12.09	2.69	107.00	15.87
Lassen	35.53	1.93	6.38	0.34	4.63	0.79	0.97	0.15	0.92	0.05	0.10	0.01	4.60	0.45	5.61	0.22	45.96	1.48	104.71	4.04	1,018.63	31.80
Los Padres	8.94	1.94	1.63	0.33	1.29	0.33	0.28	0.07	0.95	0.07	0.11	0.01	1.50	0.30	1.46	0.14	24.63	1.89	40.79	3.99	628.51	45.86
Mendocino	26.91	1.87	5.34	0.37	3.60	0.60	0.84	0.14	0.87	0.06	0.10	0.01	2.83	0.28	3.38	0.18	37.39	1.86	81.25	4.11	776.69	38.08
Modoc	17.31	1.60	3.13	0.26	1.25	0.19	0.27	0.04	1.67	0.11	0.19	0.01	2.27	0.22	3.86	0.18	45.64	1.89	75.58	3.65	1,063.16	42.54
Plumas	51.66	2.80	9.65	0.52	4.66	0.52	1.10	0.12	0.98	0.05	0.11	0.01	5.79	0.43	6.88	0.21	50.74	1.29	131.57	4.54	1,125.03	26.58
San Bernardino	4.14	0.82	0.78	0.15	0.88	0.25	0.21	0.06	0.37	0.05	0.04	0.01	1.09	0.19	0.93	0.13	11.66	1.36	20.09	2.52	293.60	33.93
Sequoia	24.17	2.05	4.40	0.35	4.97	0.60	1.03	0.12	1.05	0.07	0.12	0.01	3.24	0.42	3.73	0.17	38.83	1.67	81.55	3.90	913.15	39.24
Shasta-Trinity	90.46	3.42	17.96	0.69	10.36	0.95	2.50	0.23	1.70	0.06	0.19	0.01	9.36	0.59	11.38	0.31	98.38	2.28	242.26	6.49	2,002.50	44.68
Sierra	44.76	2.65	8.22	0.46	8.13	1.00	1.74	0.20	1.02	0.06	0.11	0.01	5.16	0.58	6.29	0.25	48.96	1.73	124.39	5.12	1,125.03	39.43
Six Rivers	68.78	3.34	13.64	0.68	6.96	0.78	1.74	0.19	1.28	0.05	0.14	0.01	5.39	0.46	4.67	0.14	58.27	1.69	160.87	5.45	1,107.52	31.08
Stanislaus	31.51	2.39	5.68	0.42	4.39	0.64	0.91	0.12	0.73	0.05	0.08	0.01	2.81	0.27	4.63	0.24	36.99	1.85	87.73	4.85	774.69	37.64
Tahoe	31.17	2.07	5.86	0.39	2.76	0.36	0.62	0.08	0.65	0.05	0.07	0.01	3.02	0.37	3.97	0.17	36.00	1.57	84.12	4.00	727.29	28.93
Toiyabe	6.55	0.90	1.20	0.17	0.74	0.17	0.17	0.04	0.43	0.04	0.05	0.00	1.22	0.27	1.67	0.15	16.47	1.27	28.50	2.55	388.14	28.71
Total	545.61	8.67	103.81	1.64	69.55	2.56	15.82	0.56	15.79	0.23	1.75	0.03	60.72	1.55	73.26	0.70	691.18	5.58	1,577.49	15.50	15,037.00	119.19
Region 6																						
Rogue River / Siskiyou	5.06	1.21	1.00	0.24	0.41	0.15	0.11	0.04	0.07	0.01	0.01	0.00	0.38	0.10	0.41	0.07	4.29	0.71	11.74	2.21	79.99	11.46
Total	5.06	1.21	1.00	0.24	0.41	0.15	0.11	0.04	0.07	0.01	0.01	0.00	0.38	0.10	0.41	0.07	4.29	0.71	11.74	2.21	79.99	11.46
All National Forests	550.67	8.70	104.80	1.65	69.96	2.56	15.93	0.56	15.86	0.23	1.76	0.03	61.10	1.55	73.67	0.70	695.47	5.58	1,589.22	15.50	15,116.99	118.92
¹ Multiply carbon (C) by 3.667 to calculate equivalent carbon dioxide (CO2e)																						

Table 4.13: Forest land carbon stocks by ownership and pool, 2010-2019: All California. Compare to appendix 2, C tables.

	Live Trees		Dead Trees		Understory		Down wood		Forest Floor		Soil		Total C		Acres	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>Million metric tons C¹</i>														<i>Thousand acres</i>	
Public reserved	299.7	11.9	40.4	2.3	7.7	0.2	27.9	1.3	29.3	0.6	290.2	5.7	695.2	17.2	6,452.7	126.5
Public unreserved	519.7	9.8	60.7	2.6	16.0	0.3	47.6	1.3	59.3	0.7	572.8	6.2	1,276.1	15.7	12,671.1	138.7
Private corporate	213.2	7.0	11.2	0.8	6.8	0.2	24.4	1.1	24.7	0.6	237.1	5.4	517.3	12.6	5,374.8	120.7
Private noncorporate	229.0	7.6	9.8	0.7	11.1	0.3	16.9	0.8	20.8	0.5	294.4	6.3	581.9	13.8	7,108.4	148.9
Total	1,261.6	15.7	122.0	3.6	41.6	0.4	116.7	2.1	134.1	0.9	1,394.5	8.4	3,070.5	22.3	31,607.0	191.7

¹Multiply carbon (C) by 3.667 to calculate equivalent carbon dioxide (CO₂e)**Table 4.14:** Forest land carbon stocks by ownership and pool, 2010-2019: Central Coast/Interior Ranges. Compare to appendix 2, C tables.

	Live Trees		Dead Trees		Understory		Down wood		Forest Floor		Soil		Total C		Acres	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>Million metric tons C¹</i>														<i>Thousand acres</i>	
Public reserved	20.9	4.0	1.2	0.4	0.7	0.1	1.5	0.4	1.3	0.1	18.9	1.9	44.6	5.9	454.7	44.9
Public unreserved	5.8	1.8	0.2	0.0	0.4	0.1	0.4	0.1	0.5	0.1	9.1	1.4	16.4	3.1	243.6	35.4
Private corporate	7.0	1.7	0.4	0.2	0.3	0.0	0.6	0.2	0.5	0.1	7.3	1.3	15.9	3.1	174.2	30.4
Private noncorporate	31.1	4.0	1.3	0.2	1.4	0.1	2.0	0.3	2.2	0.2	35.9	2.8	74.0	6.8	874.1	67.0
Total	64.8	6.2	3.0	0.5	2.8	0.1	4.5	0.5	4.6	0.3	71.2	3.8	150.9	9.9	1,746.5	91.1

¹Multiply carbon (C) by 3.667 to calculate equivalent carbon dioxide (CO₂e)**Table 4.15:** Forest land carbon stocks by ownership and pool, 2010-2019: Central Valley. Compare to appendix 2, C tables.

	Live Trees		Dead Trees		Understory		Down wood		Forest Floor		Soil		Total C		Acres	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>Million metric tons C¹</i>														<i>Thousand acres</i>	
Public reserved	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.5	0.4	5.7	4.7
Public unreserved	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.2	4.3	3.1
Private corporate	0.1	0.2	--	--	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.3	4.8	5.2
Private noncorporate	1.4	0.5	0.1	0.0	0.1	0.0	0.1	0.1	0.2	0.0	3.0	0.8	4.9	1.3	86.0	21.6
Total	1.9	0.6	0.1	0.0	0.2	0.0	0.2	0.1	0.2	0.0	3.5	0.8	6.0	1.5	100.8	22.9

¹Multiply carbon (C) by 3.667 to calculate equivalent carbon dioxide (CO₂e)

Table 4.16: Forest land carbon stocks by ownership and pool, 2010-2019: Eastside. Compare to appendix 2, C tables.

	Live Trees		Dead Trees		Understory		Down wood		Forest Floor		Soil		Total C		Acres	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>Million metric tons C¹</i>														<i>Thousand acres</i>	
Public reserved	5.4	1.4	0.4	0.1	0.4	0.1	0.6	0.1	1.0	0.2	11.5	1.6	19.3	3.1	298.4	41.6
Public unreserved	22.0	1.5	1.6	0.3	3.5	0.2	3.0	0.3	5.4	0.3	76.1	3.3	111.7	4.9	1,831.8	79.4
Private corporate	4.0	0.8	0.2	0.1	0.5	0.1	0.7	0.1	1.2	0.2	13.1	1.8	19.7	2.8	304.8	42.2
Private noncorporate	2.2	0.5	0.1	0.0	0.4	0.1	0.3	0.1	0.6	0.1	8.9	1.5	12.5	2.1	213.0	35.6
Total	33.6	2.3	2.3	0.3	4.9	0.2	4.7	0.3	8.2	0.4	109.5	4.3	163.2	6.7	2,648.1	103.4

¹Multiply carbon (C) by 3.667 to calculate equivalent carbon dioxide (CO₂e)**Table 4.17:** Forest land carbon stocks by ownership and pool, 2010-2019: Klamath Interior/Coast Ranges. Compare to appendix 2, C tables.

	Live Trees		Dead Trees		Understory		Down wood		Forest Floor		Soil		Total C		Acres	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>Million metric tons C¹</i>														<i>Thousand acres</i>	
Public reserved	102.3	6.9	14.9	1.4	2.1	0.1	8.1	0.6	8.2	0.4	90.6	3.8	226.2	10.9	1,787.7	74.7
Public unreserved	181.2	6.6	22.4	1.8	3.7	0.1	15.0	0.8	16.0	0.5	159.9	4.3	398.2	11.4	3,248.8	88.0
Private corporate	42.4	3.5	2.1	0.3	1.6	0.1	5.2	0.6	5.6	0.4	58.3	3.8	115.2	7.9	1,263.7	81.9
Private noncorporate	62.8	4.6	2.4	0.3	2.9	0.2	4.8	0.5	5.5	0.3	81.6	4.3	160.0	9.2	1,881.0	98.2
Total	388.7	10.2	41.8	2.3	10.3	0.2	33.0	1.2	35.3	0.7	390.5	7.4	899.6	17.9	8,181.1	155.8

¹Multiply carbon (C) by 3.667 to calculate equivalent carbon dioxide (CO₂e)**Table 4.18:** Forest land carbon stocks by ownership and pool, 2010-2019: North Coast. Compare to appendix 2, C tables.

	Live Trees		Dead Trees		Understory		Down wood		Forest Floor		Soil		Total C		Acres	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>Million metric tons C¹</i>														<i>Thousand acres</i>	
Public reserved	38.9	8.4	1.7	0.4	0.5	0.1	2.4	0.5	1.2	0.2	13.4	1.7	58.0	10.2	308.1	38.4
Public unreserved	13.4	3.2	0.5	0.1	0.2	0.0	0.8	0.3	0.6	0.1	7.3	1.3	22.8	4.7	162.2	29.7
Private corporate	82.4	6.0	4.8	0.6	1.6	0.1	9.3	0.9	4.7	0.3	52.2	3.2	155.0	9.9	1,197.6	71.6
Private noncorporate	70.1	5.5	1.9	0.3	1.5	0.1	4.3	0.5	3.8	0.3	43.3	3.0	124.8	8.9	1,019.2	69.6
Total	204.8	11.2	8.9	0.8	3.7	0.1	16.8	1.1	10.4	0.4	116.1	4.3	360.6	15.7	2,687.1	97.7

¹Multiply carbon (C) by 3.667 to calculate equivalent carbon dioxide (CO₂e)

Table 4.19: Forest land carbon stocks by ownership and pool, 2010-2019: Sierra/Cascades. Compare to appendix 2, C tables.

	Live Trees		Dead Trees		Understory		Down wood		Forest Floor		Soil		Total C		Acres	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>Million metric tons C¹</i>														<i>Thousand acres</i>	
Public reserved	126.5	5.9	21.2	1.8	3.3	0.1	13.9	1.0	16.4	0.5	136.7	4.2	317.9	10.8	3,108.5	95.0
Public unreserved	290.5	7.3	34.5	1.8	7.2	0.2	27.2	1.0	35.5	0.6	298.7	4.9	693.5	12.4	6,606.2	108.1
Private corporate	77.0	4.2	3.6	0.4	2.7	0.1	8.5	0.5	12.7	0.6	104.1	4.3	208.7	9.1	2,376.2	97.9
Private noncorporate	58.3	3.3	3.8	0.5	4.4	0.2	4.8	0.4	8.0	0.4	113.6	4.6	193.0	8.2	2,824.6	113.3
Total	552.3	10.3	63.2	2.6	17.6	0.3	54.4	1.5	72.5	1.0	653.2	8.2	1,413.2	18.9	14,915.6	188.5

¹Multiply carbon (C) by 3.667 to calculate equivalent carbon dioxide (CO₂e)

Table 4.20: Forest land carbon stocks by ownership and pool, 2010-2019: South Coast Mountains and Deserts. Compare to appendix 2, C tables.

	Live Trees		Dead Trees		Understory		Down wood		Forest Floor		Soil		Total C		Acres	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>Million metric tons C¹</i>														<i>Thousand acres</i>	
Public reserved	5.5	1.1	1.1	0.2	0.8	0.1	1.3	0.2	1.1	0.2	18.8	2.0	28.6	3.3	489.6	51.6
Public unreserved	6.7	1.1	1.4	0.3	1.0	0.1	1.3	0.2	1.3	0.1	21.6	1.9	33.2	3.0	574.2	48.8
Private corporate	0.3	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	1.9	0.7	2.5	0.9	53.5	18.2
Private noncorporate	3.0	0.8	0.3	0.1	0.4	0.1	0.5	0.2	0.4	0.1	8.1	1.3	12.7	2.2	210.5	32.9
Total	15.5	1.7	2.8	0.4	2.2	0.1	3.2	0.3	3.0	0.2	50.4	3.1	77.0	5.0	1,327.8	79.5

¹Multiply carbon (C) by 3.667 to calculate equivalent carbon dioxide (CO₂e)

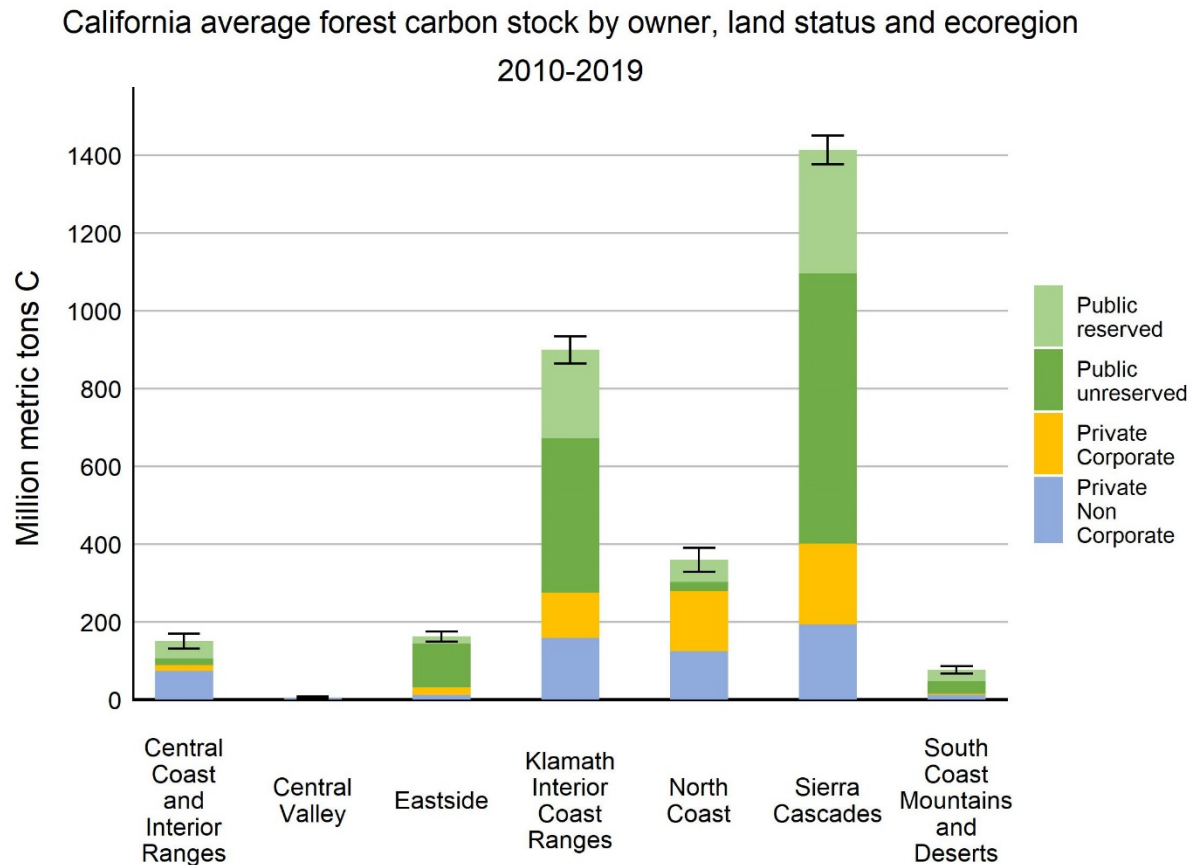


Figure 4.11. Average forest carbon stock by owner, land status and ecological region, 2010-2019 (MMT C). Error bars represent 95% confidence interval of estimated total stock for each ecological region.

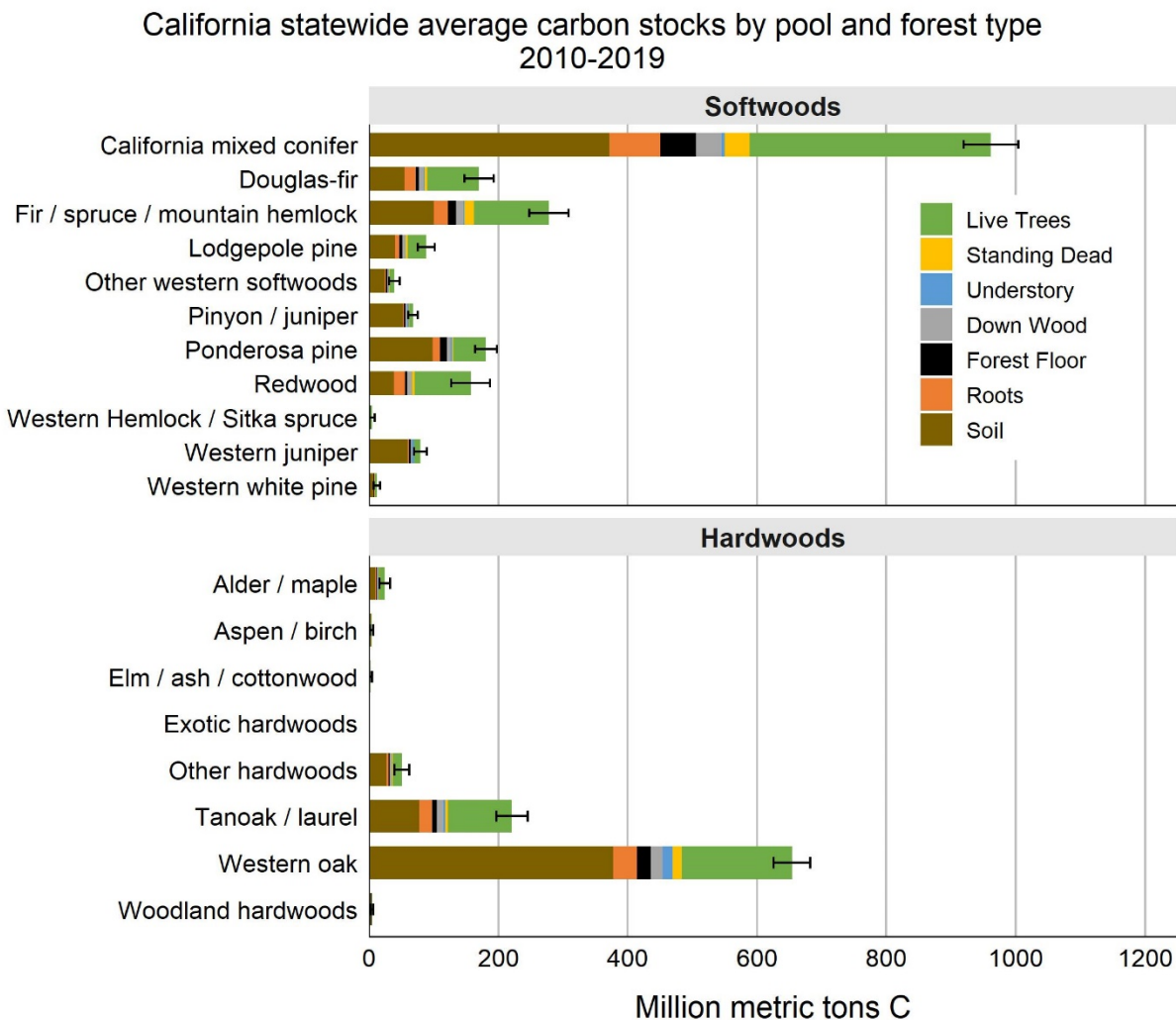


Figure 4.12. California statewide average carbon stock by pool and forest type, 2010-2019 (thousand metric tons C). Error bars represent the 95% confidence interval of total stock for each forest type. Figure derived from Table 4.21; compare to Appendix 2, D tables. *note, “non-stocked” not depicted in this figure.

Table 4.21: Forest land carbon stocks by forest type and pool, 2010-2019: All California. Compare to Appendix 2, D tables.

	Live Trees		Dead Trees		Roots		Understory		Down wood		Forest Floor		Soil		All pools	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand metric tons C</i>																
Softwoods:																
California mixed conifer	373,126	9,753	38,211	1,992	79,362	2,082	5,446	157	39,288	1,369	54,608	1,188	371,532	7,995	961,572	21,649
Douglas-fir	79,622	5,956	4,233	496	17,521	1,314	1,365	88	7,352	750	4,965	319	55,091	3,540	170,149	11,515
Fir / spruce / mountain hemlock	115,252	7,249	15,325	1,374	22,595	1,423	1,617	86	11,050	858	12,564	660	99,804	5,191	278,208	15,468
Western Hemlock / Sitka spruce	2,300	1,021	222	165	570	269	30	13	312	234	249	109	1,294	579	4,976	2,254
Lodgepole pine	28,826	2,516	3,365	417	6,724	585	718	68	4,178	554	4,921	376	39,940	3,019	88,673	6,877
Pinyon / juniper	6,087	489	553	96	1,397	107	2,722	147	1,942	227	2,585	160	52,937	2,892	68,224	3,728
Ponderosa pine	50,463	2,970	1,943	291	11,244	672	2,475	136	5,771	455	10,275	485	98,855	4,495	181,026	8,640
Redwood	87,287	9,909	3,401	532	16,989	1,873	820	68	7,099	888	3,170	256	38,784	3,115	157,550	15,303
Western juniper	9,359	837	413	86	1,720	159	3,516	238	1,262	153	3,385	220	59,899	3,608	79,554	4,878
Western white pine	3,220	783	456	132	717	173	136	31	427	131	729	155	6,524	1,337	12,208	2,561
Other western softwoods	7,488	1,085	949	204	1,784	276	815	105	1,404	256	2,259	235	24,600	2,470	39,300	4,128
Total	763,030	14,271	69,071	2,412	160,622	2,902	19,660	342	80,085	1,932	99,710	1,128	849,260	9,191	2,041,439	26,376
Hardwoods:																
Alder / maple	9,038	1,715	907	248	2,028	371	367	57	1,694	371	806	127	9,723	1,518	24,564	4,045
Aspen / birch	586	261	63	34	120	51	112	32	189	89	213	61	3,006	867	4,289	1,241
Elm / ash / cottonwood	926	397	33	19	172	77	65	22	87	35	99	36	1,526	535	2,908	1,092
Tanoak / laurel	98,845	6,188	4,362	467	20,097	1,259	2,904	151	10,140	814	6,984	369	77,900	4,115	221,232	12,262
Western oak	170,445	5,329	14,359	1,031	37,211	1,152	15,358	299	17,928	800	21,336	475	377,454	7,543	654,090	14,442
Woodland hardwoods	545	163	123	46	115	31	189	41	174	70	218	47	3,450	723	4,814	990
Exotic hardwoods	3	3	--	--	1	1	8	6	7	7	8	6	137	98	164	117
Other hardwoods	13,806	2,370	1,715	599	3,213	539	957	97	2,457	492	1,995	210	26,920	2,733	51,063	5,877
Total	294,193	8,080	21,562	1,289	62,957	1,700	19,959	328	32,676	1,268	31,660	593	500,117	8,428	963,124	18,541
Nonstocked	1,581	323	8,399	1,425	2,118	316	1,972	136	3,921	500	2,764	198	45,132	3,161	65,888	4,950
All forest types	1,058,805	13,276	99,032	2,930	225,698	2,670	41,592	404	116,683	2,146	134,134	923	1,394,509	8,411	3,070,451	22,269

Note: Totals may be of because of rounding

California statewide average carbon stocks by land status and forest type 2010-2019

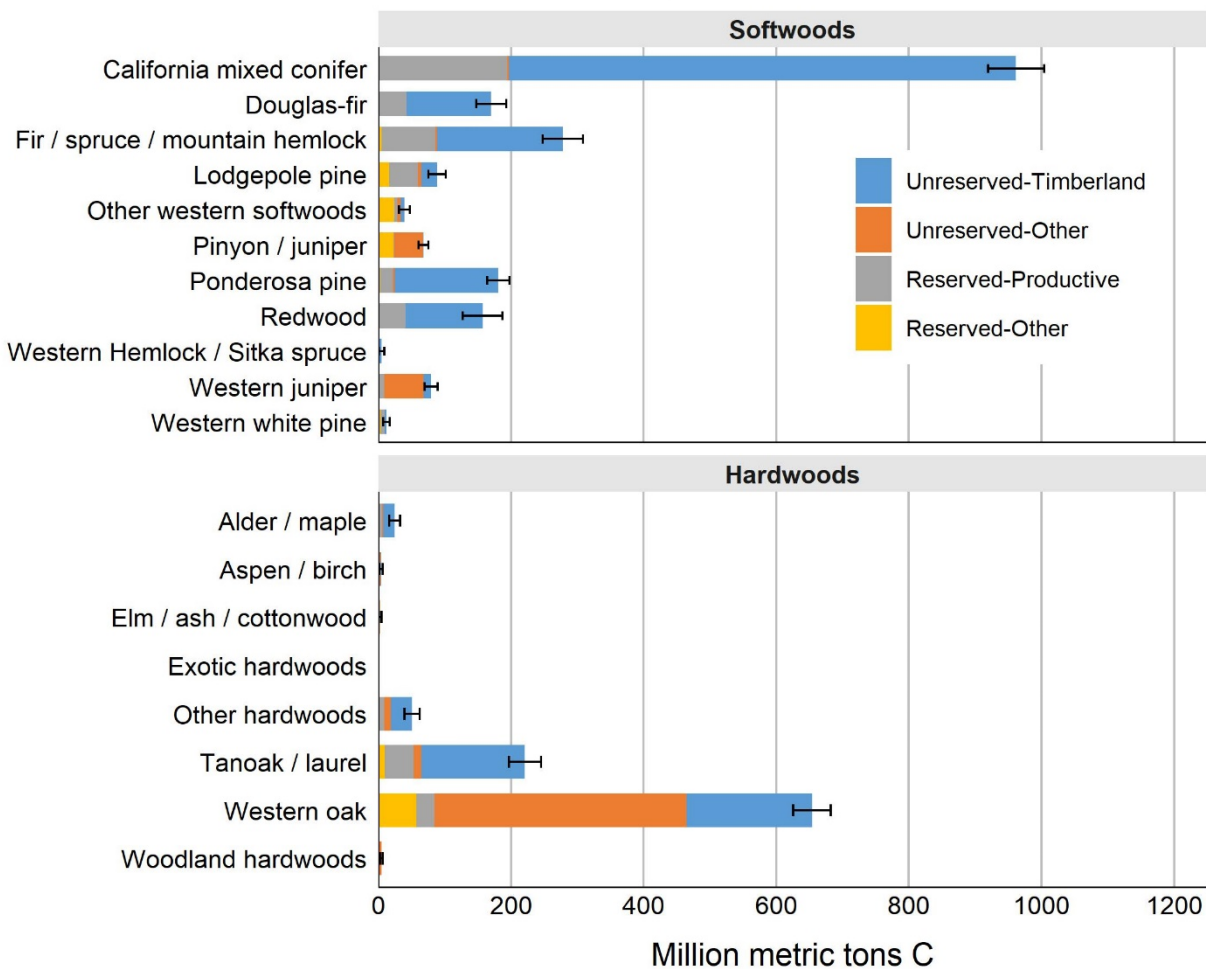


Figure 4.13. California statewide average forest carbon stock by land status and forest type, 2010-2019 (thousand metric tons C). Error bars represent the 95% confidence interval of total stock for each forest type. Figure derived from Table 4.22; compare to Appendix 2, D tables. *note, “non-stocked” not depicted in this figure.

Table 4.22: Forest land carbon stocks (thousand metric tons C) by forest type and land status, 2010-2019: all California. Compare to Appendix 2, D tables.

	Unreserved Forests:				Reserved Forests:				All forest land	
	Timberland		Other Forest		Productive		Other Forest		Total	SE
	Total	SE	Total	SE	Total	SE	Total	SE		
<i>Thousand metric tons C</i>										
Softwoods:										
California mixed conifer	764,323	18,950	2,568	1,205	193,849	11,455	832	794	961,572	21,649
Douglas-fir	127,655	9,898	--	--	40,661	6,450	1,833	944	170,149	11,515
Fir / spruce / mountain hemlock	189,618	12,219	2,202	1,176	81,754	9,305	4,633	1,876	278,208	15,468
Western Hemlock / Sitka spruce	4,707	2,238	--	--	269	267	--	--	4,976	2,254
Lodgepole pine	23,989	3,657	4,568	1,632	43,301	5,098	16,815	2,962	88,673	6,877
Pinyon / juniper	672	457	43,940	2,922	307	272	23,305	2,414	68,224	3,728
Ponderosa pine	156,402	7,897	2,770	1,013	19,620	3,339	2,234	902	181,026	8,640
Redwood	116,141	10,641	--	--	41,408	11,176	--	--	157,550	15,303
Western juniper	11,541	2,030	58,984	4,011	7,065	1,949	1,964	856	79,554	4,878
Western white pine	2,001	999	--	--	7,180	2,036	3,027	1,225	12,208	2,561
Other western softwoods	5,719	1,745	5,041	1,387	4,606	1,559	23,933	3,180	39,300	4,128
Total	1,402,770	21,404	120,074	5,584	440,020	17,496	78,575	5,333	2,041,439	26,376
Hardwoods:										
Alder / maple	17,039	3,238	1,557	683	5,423	2,278	545	481	24,564	4,045
Aspen / birch	949	626	1,341	644	1,072	633	927	576	4,289	1,241
Elm / ash / cottonwood	--	--	2,203	976	26	25	679	489	2,908	1,092
Tanoak / laurel	155,988	10,206	12,208	2,562	42,928	6,278	10,109	2,674	221,232	12,262
Western oak	189,575	10,418	379,837	9,980	27,285	4,022	57,392	4,787	654,090	14,442
Woodland hardwoods	--	--	3,620	875	--	--	1,194	464	4,814	990
Exotic hardwoods	95	96	69	68	--	--	--	--	164	117
Other hardwoods	32,298	4,928	10,017	1,822	6,956	2,594	1,792	716	51,063	5,877
Total	395,945	14,814	410,852	10,214	83,690	7,936	72,637	5,528	963,124	18,541
Nonstocked	38,123	3,727	7,518	1,395	16,087	2,783	4,160	1,125	65,888	4,950
All forest types	1,836,838	19,545	538,444	11,445	539,798	17,012	155,372	7,610	3,070,451	22,269

Note: Totals may be off because of rounding

California statewide carbon density by pool and forest type
2010-2019

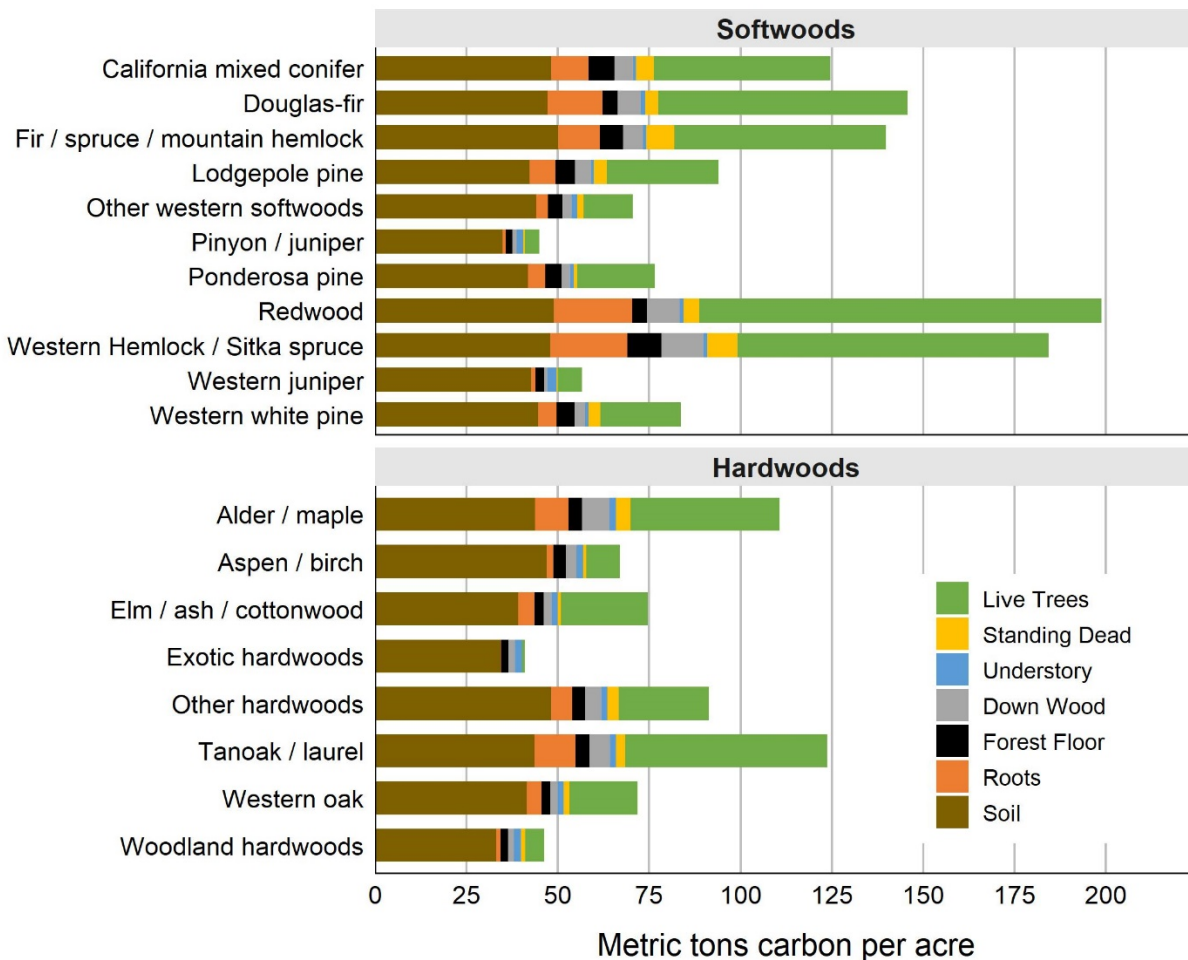


Figure 4.14. California statewide carbon density by pool and forest type, 2010-2019 (metric tons C/acre). *note, "non-stocked" not depicted in this figure.

Table 4.23: Aboveground live carbon (C) stocks on forest land by ownership, 2010-2019. Compare to Table 4.12, Appendix 2, Tables C1 and C19.

	Public						Private				All ownerships	
	National Forest		Other Federal		State and local govt.		Corporate		Non Corporate			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>Million metric tons C¹</i>											
Live trees	550.67	8.70	81.63	5.23	56.22	6.26	178.79	5.88	191.50	6.39	1,058.80	13.28
Live understory	15.86	0.23	4.01	0.17	1.44	0.08	6.12	0.18	9.99	0.23	37.43	0.36

¹Multiply carbon (C) by 3.667 to calculate equivalent carbon dioxide (CO₂e)

Table 4.24 Aboveground average annual live carbon flux (CO₂e) on forest land by ownership, 2001-2009 to 2011-2019. Compare to table 4.3 and Appendix 2, Table B1.

	Public						Private				Total			
	National forest		Other federal		State and local govt.		Corporate		Non Corporate					
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE		
	<i>Million Metric Tons CO2 Equivalent Per Year</i>													
Live trees	-0.69	1.36	-0.21	0.55	1.78	0.28	4.87	0.99	7.34	0.57	12.21	1.10	13.09	1.86
Foliage	0.03	0.07	0.00	0.03	0.08	0.01	0.28	0.05	0.33	0.03	0.61	0.06	0.72	0.09
Live understory	-0.04	0.04	0.03	0.02	-0.02	0.01	-0.07	0.04	-0.06	0.02	-0.13	0.04	-0.16	0.07

Note: Totals may be of because of rounding.

Table 4.25: Belowground live and dead carbon (C) stocks on forest land by ownership, 2010-2019. Compare to Table 4.12, Appendix 2, Tables C28, C36 and C45.

	Public						Private				All ownerships	
	National Forest		Other Federal		State and local govt.		Corporate		Non Corporate			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>Million metric tons C¹</i>											
Live tree roots	104.80	1.65	15.45	0.93	10.65	1.15	34.38	1.13	37.47	1.24	202.75	2.47
Dead tree roots	15.93	0.56	2.24	0.22	0.54	0.06	2.31	0.17	1.92	0.13	22.95	0.64
Understory roots	1.76	0.03	0.45	0.02	0.16	0.01	0.68	0.02	1.11	0.03	4.16	0.04

¹Multiply carbon (C) by 3.667 to calculate equivalent carbon dioxide (CO₂e)

Table 4.26: Belowground live and dead average annual carbon flux (CO₂e) on forest land by ownership, 2001-2009 to 2011-2019. Compare to table 4.3 and Appendix 2, Table B1.

	Public						Private				Total	
	National forest		Other federal		State and local govt.		Corporate		Non Corporate			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>Million metric tons CO₂ Equivalent</i>											
Live tree roots	-0.02	0.27	-0.02	0.10	0.35	0.06	1.07	0.21	1.39	0.12	2.78	0.38
Dead tree roots	1.18	0.19	0.03	0.08	-0.03	0.03	0.01	0.05	0.13	0.05	1.32	0.22
Understory roots	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	-0.01	0.00	-0.02	0.01

Note: Totals may be off because of rounding

Table 4.27: Aboveground dead wood carbon (C) stocks on forest land by ownership, 2010-2019. Compare to Table 4.12, Appendix 2, Tables C10 and C62.

	Public						Private				All ownerships	
	National Forest		Other Federal		State and local govt.		Corporate		Non Corporate		Total	SE
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE		
	<i>Million metric tons C¹</i>											
Standing dead trees	69.96	2.56	10.31	1.17	2.06	0.25	8.85	0.63	7.86	0.54	99.03	2.93
Down woody material	61.10	1.55	10.31	0.76	4.04	0.42	24.37	1.07	16.86	0.84	116.68	2.15

¹Multiply carbon (C) by 3.667 to calculate equivalent carbon dioxide (CO₂e)

Table 4.28: Aboveground dead wood average annual carbon flux (CO₂e) on forest land by ownership, 2001-2009 to 2011-2019. Compare to table 4.3 and Appendix 2, Table B1.

	Public						Private				Total	
	National forest		Other federal		State and local govt.		Corporate		Non Corporate		Total	SE
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE		
	<i>Million metric tons CO₂ Equivalent</i>											
Standing dead trees	6.93	0.93	0.41	0.44	-0.11	0.11	0.38	0.20	0.82	0.23	8.42	1.08
Down woody material	0.70	0.57	0.41	0.27	0.05	0.17	-1.22	0.39	0.25	0.28	0.19	0.81

Note: Totals may be off because of rounding

Table 4.29: Soil organic carbon and forest floor (C) stocks on forest land by ownership, 2010-2019. Compare to Table 4.12, Appendix 2, Table C53 and C71.

	Public						Private				All ownerships	
	National Forest		Other Federal		State and local govt.		Corporate		Non Corporate			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>Million metric tons C¹</i>											
Forest Floor	73.67	0.70	11.26	0.38	3.68	0.20	24.69	0.59	20.84	0.53	134.13	0.92
Soil organic carbon	695.47	5.58	122.66	3.67	44.90	2.17	237.08	5.36	294.39	6.28	1,394.51	8.41

¹Multiply carbon (C) by 3.667 to calculate equivalent carbon dioxide (CO₂e)

Table 4.30: Soil organic carbon and forest floor average annual flux (CO₂e) on forest land by ownership, 2001-2009 to 2011-2019. Compare to table 4.3 and Appendix 2, Table B1.

	Public						Private				Total	
	National forest		Other federal		State and local govt.		Corporate		Non Corporate			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>Million metric tons CO₂ Equivalent</i>											
Forest Floor	-0.12	0.11	-0.12	0.05	0.01	0.01	0.06	0.08	0.13	0.05	-0.04	0.16
Soil organic carbon	-0.46	0.21	-0.07	0.07	-0.03	0.04	0.20	0.22	0.09	0.10	-0.26	0.33

Note: Totals may be of because of rounding

Table 4.31: Forest carbon pools by 10-year inventory period, 2001-2010 through 2010-2019. Compare to Appendix 2, C tables.

	Live Trees		Dead Trees		Down wood		Understory		Belowground roots		Forest Floor		Soil		Total carbon	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>Million metric tons C¹</i>															
2001 - 2010	1,018.09	13.23	79.12	2.36	116.88	1.86	44.67	0.42	214.82	2.66	136.90	0.95	1,447.78	8.49	3,058.27	21.95
2002 - 2011	1,026.28	13.23	80.95	2.38	116.78	1.91	44.23	0.42	216.66	2.66	136.48	0.94	1,439.38	8.49	3,060.75	22.01
2003 - 2012	1,033.39	13.28	81.90	2.41	116.32	1.93	43.96	0.43	218.07	2.67	136.35	0.94	1,434.62	8.51	3,064.61	22.11
2004 - 2013	1,042.99	13.34	82.03	2.43	114.83	1.91	43.21	0.42	219.88	2.68	135.83	0.94	1,422.52	8.51	3,061.30	22.18
2005 - 2014	1,051.32	13.30	82.85	2.49	114.28	1.93	42.79	0.41	221.67	2.68	135.54	0.94	1,415.18	8.50	3,063.64	22.25
2006 - 2015	1,057.33	13.32	85.21	2.54	114.49	1.97	42.43	0.41	223.21	2.69	135.40	0.94	1,407.40	8.47	3,065.49	22.30
2007 - 2016	1,062.21	13.41	87.97	2.63	114.37	2.01	42.24	0.41	224.39	2.70	135.24	0.93	1,403.86	8.46	3,070.29	22.41
2008 - 2017	1,060.75	13.31	92.59	2.85	114.48	2.04	42.02	0.41	225.02	2.69	134.69	0.93	1,399.60	8.44	3,069.15	22.34
2009 - 2018	1,060.21	13.26	95.69	2.89	114.63	2.08	41.77	0.41	225.46	2.67	134.41	0.93	1,396.59	8.44	3,068.75	22.30
2010 - 2019	1,058.80	13.28	99.03	2.93	116.68	2.15	41.59	0.40	225.70	2.67	134.13	0.92	1,394.51	8.41	3,070.45	22.27

¹Multiply carbon (C) by 3.667 to calculate equivalent carbon dioxide (CO₂e)

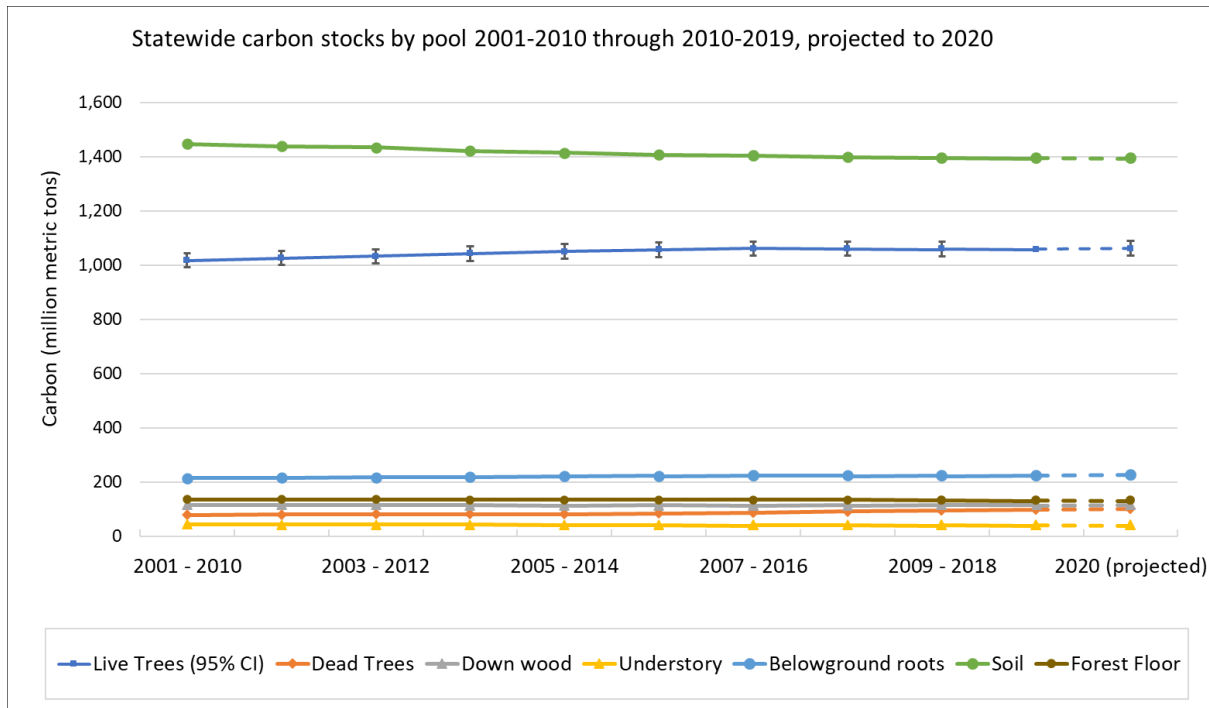


Figure 4.15. California carbon stocks by source pool, 2001-2010 through 2010-2019 with projection to 2020. Error bars represent the 95% confidence interval of live tree carbon stocks to 2020.

Table 4.32: Live tree carbon stocks by ownership and land status, 2001-2010 through 2010-2019. Compare to Appendix 2, C tables.

	Unreserved timberland						Reserved forest		All forest land	
	Private - corporate		Private - noncorporate		National forests		National forests		All ownerships	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>Million metric tons C¹</i>									
2001 - 2010	134.90	5.29	135.78	6.25	375.22	7.85	140.70	5.71	1,018.09	13.23
2002 - 2011	133.73	5.22	139.40	6.32	377.93	7.87	142.31	5.76	1,026.28	13.23
2003 - 2012	134.46	5.15	140.04	6.38	380.92	7.72	145.21	5.85	1,033.39	13.28
2004 - 2013	138.50	5.23	142.01	6.49	383.81	7.75	145.30	5.90	1,042.99	13.34
2005 - 2014	140.20	5.23	140.79	6.40	385.44	7.73	147.59	5.98	1,051.32	13.30
2006 - 2015	146.65	5.41	138.73	6.34	386.36	7.73	146.29	5.92	1,057.33	13.32
2007 - 2016	153.28	5.54	135.72	6.38	385.71	7.72	147.16	5.86	1,062.21	13.41
2008 - 2017	159.28	5.60	133.14	6.34	384.12	7.69	145.98	5.69	1,060.75	13.31
2009 - 2018	163.62	5.83	131.92	6.17	382.79	7.64	144.90	5.71	1,060.21	13.26
2010 - 2019	163.48	5.78	134.33	6.25	382.08	7.61	144.82	5.68	1,058.80	13.28

¹Multiply carbon (C) by 3.667 to calculate equivalent carbon dioxide (CO₂e)

Table 4.33: Forest carbon stocks by ownership and land status, 2001-2010 through 2010-2019. Compare to Appendix C tables.

	Unreserved timberland						Reserved forest		All forest land	
	Private - corporate		Private - noncorporate		National forests		National forests		All ownerships	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>Million metric tons C¹</i>									
2001 - 2010	398.57	12.00	348.11	12.97	1,005.14	14.66	405.26	11.06	3,058.27	21.95
2002 - 2011	394.85	11.88	352.08	13.07	1,010.27	14.75	408.52	11.11	3,060.75	22.01
2003 - 2012	397.51	11.75	349.89	13.11	1,015.44	14.58	414.07	11.14	3,064.61	22.11
2004 - 2013	403.84	11.81	347.75	13.16	1,016.56	14.59	413.85	11.20	3,061.30	22.18
2005 - 2014	407.42	11.82	341.77	13.01	1,018.92	14.61	418.11	11.28	3,063.64	22.25
2006 - 2015	419.83	11.92	334.95	12.91	1,019.81	14.61	418.46	11.24	3,065.49	22.30
2007 - 2016	432.47	12.03	324.02	12.86	1,018.89	14.62	424.43	11.16	3,070.29	22.41
2008 - 2017	446.27	12.04	313.40	12.75	1,017.51	14.61	424.46	11.12	3,069.15	22.34
2009 - 2018	453.08	12.13	311.13	12.60	1,017.11	14.58	423.52	11.25	3,068.75	22.30
2010 - 2019	452.84	12.01	315.08	12.64	1,020.52	14.55	427.11	11.30	3,070.45	22.27

¹Multiply carbon (C) by 3.667 to calculate equivalent carbon dioxide (CO₂e)

4 Harvested wood product carbon results: Carbon flux, stock, and trends, select table and figure updates

Table 5.2. Conversion factors used in this analysis.

Conversion	Units	Conversion location
6.0200	BF per CF, timber harvest 1952 – 1979	
5.3500	BF per CF, timber harvest 1980 – 1989	
4.7170	BF per CF, timber harvest 1990 – 2000	External
4.6213	BF per CF, timber harvest 2001 – 2006	
3.9594	BF per CF, timber harvest 2007 – 2012	
4.2857*	BF per CF, timber harvest 2013-2019	
33 to 42	lbs per cubic foot, primary products	Internal
2204.6	lbs per metric ton	Internal
0.95 to 1.0	Metric ton wood fiber per metric ton product	Internal
0.5	Metric ton carbon per dry metric ton wood fiber	Internal
0.711 to 0.919	MT C per CCF, primary products ¹	Internal

¹See Appendix 3, Table 3.9 for CCF to MT C conversions for all primary products.

**Note BF per CF value for 2013-2019 updated from 2017 report value of 3.9594 based on information from the most recent 2016 timber products output report (Marcille, et al. 2020). This update first occurred with the 2018 data update.*

Table 6.1. Annual timber product output in California for selected years using the IPCC production approach. This table shows carbon removed from the ecosystem by harvesting.

** Please note that all TPO numbers in this table are updated from table 6.1 in the 2017 report due to revisions in end-use ratios, board foot to cubic foot conversions for 2013-2019, and model code to improve user ability to verify calculations. Additionally, cumulative TPO column has been added. There are no changes to harvest volumes except for a typo in the 2017 harvest volume that was 275 MBF Scribner higher in the previous report. These updates first occurred with the 2018 data update.*

Harvest year	Harvest (MBF Scribner)	Timber product output (MT C)	Cumulative TPO (MT C)
1952	5,057,000	6,210,832	6,210,832
1960	5,137,000	6,309,085	62,107,091
1970	4,566,000	5,607,171	126,213,538
1980	3,441,000	4,748,834	183,209,323
1990	4,251,000	6,646,425	238,614,445
1995	2,535,000	3,970,456	262,263,008
2000	2,112,000	3,307,930	281,069,030
2001	1,751,800	2,788,119	283,857,149
2002	1,838,753	2,926,511	286,783,660
2003	1,812,713	2,885,066	289,668,726
2004	1,875,287	2,984,658	292,653,384
2005	1,889,454	3,007,205	295,660,589
2006	1,774,600	2,824,407	298,484,996
2007	1,776,300	3,318,111	301,803,107
2008	1,497,513	2,797,340	304,600,447
2009	915,095	1,709,389	306,309,835
2010	1,302,764	2,433,550	308,743,386
2011	1,464,641	2,735,935	311,479,321
2012	1,437,180	2,684,638	314,163,959
2013	1,767,033	3,049,488	317,213,447
2014	1,494,437	2,579,050	319,792,497
2015	1,703,188	2,939,306	322,731,803
2016	1,687,376	2,912,018	325,643,822
2017	1,695,681	2,926,351	328,570,172

Harvest year	Harvest (MBF Scribner)	Timber product output (MT C)	Cumulative TPO (MT C)
2018	1,724,957	2,976,874	331,547,047
2019	1,670,830	2,883,464	334,430,510

Figure 6.1. Annual timber product output in California, converted to metric tons carbon 1952 to 2019.

** Please note that this entire figure is updated from fig 6.1 in the 2017 report due to rrevisions in end-use ratios, board foot to cubic foot conversions for 2013-2019, and model code to improve user ability to verify calculations. These updates first occurred with the 2018 data update.*

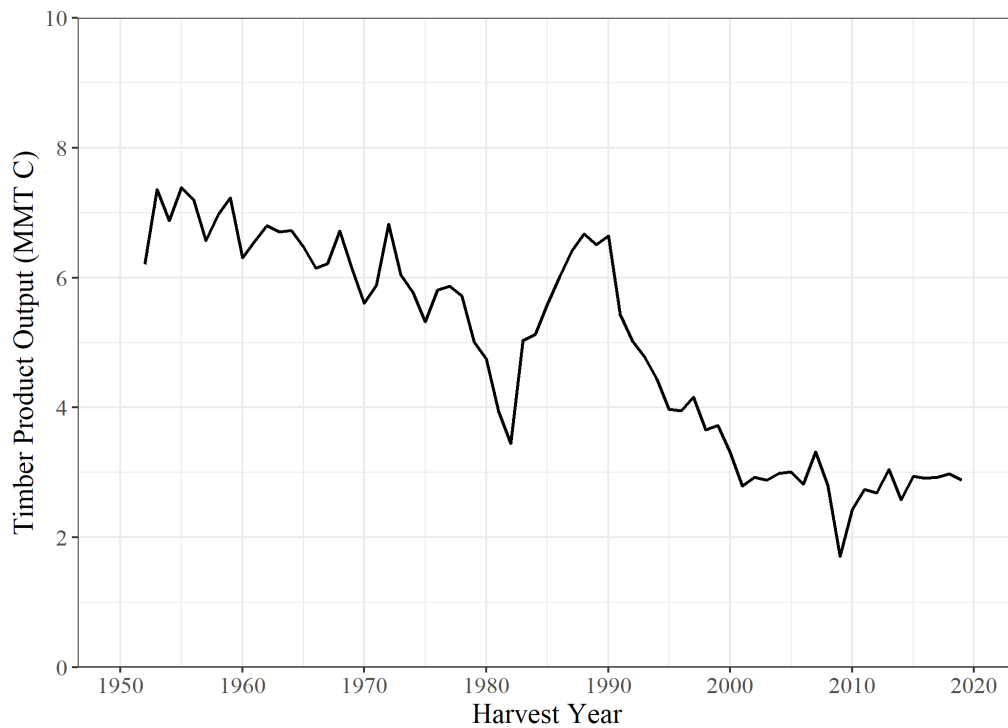


Figure 6.2. Cumulative total carbon stored in HWP manufactured from California timber using the IPCC production approach, 1952-2019. Carbon in HWP includes both products that are still in use and carbon stored at solid waste disposal sites (SWDS).

** Please note that this entire figure is updated from fig 6.2 in the 2017 report report due to rrevisions in end-use ratios, board foot to cubic foot conversions for 2013-2019, and model code to improve user ability to verify calculations. These updates first occurred with the 2018 data update.*

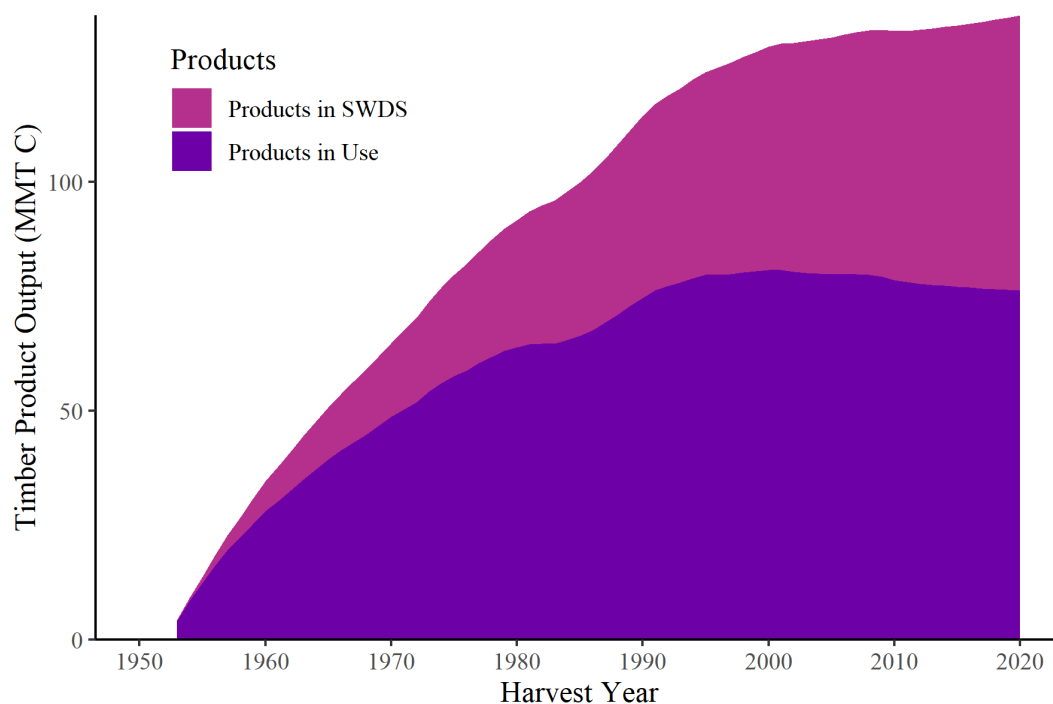


Table 6.2. Cumulative disposition of California HWP C for selected years using the IPCC production approach. This table shows the fate of all carbon removed from the ecosystem by harvesting.

** Please note that all numbers in this table are updated from table 6.2 in the 2017 report due to revisions in end-use ratios, board foot to cubic foot conversions for 2013-2019, and model code to improve user ability to verify calculations. These updates first occurred with the 2018 data update.*

Inventory year	Emitted with energy capture (metric ton CO ₂ e) ^a	Emitted without energy capture (metric ton CO ₂ e) ^a	Products in use (metric ton C)	SWDS (metric ton C) ^d	Total in HWP storage pools ^b (metric ton C)
1960	61,908,899	15,456,377	28,083,244	6,615,140	34,698,385
1970	132,479,288	69,192,814	49,549,702	16,055,183	65,604,885
1980	181,420,269	133,799,370	64,718,902	27,772,594	92,491,496
1990	237,574,946	190,415,212	75,520,876	39,722,556	115,243,431
1995	263,918,164	223,094,689	81,164,766	44,306,099	125,470,865

Inventory year	Emitted with energy capture (metric ton CO _{2e}) ^a	Emitted without energy capture (metric ton CO _{2e}) ^a	Products in use (metric ton C)	SWDS (metric ton C) ^d	Total in HWP storage pools ^b (metric ton C)
2000	284,541,705	253,869,331	82,130,799	48,790,927	130,921,726
2001	288,045,882	259,808,778	82,241,234	49,412,888	131,654,122
2002	291,831,032	265,641,053	81,819,797	49,999,510	131,819,307
2003	295,804,063	271,249,385	81,545,276	50,587,444	132,132,719
2004	299,720,828	276,741,695	81,314,720	51,136,954	132,451,674
2005	303,772,799	282,050,821	81,201,884	51,681,421	132,883,306
2006	307,855,381	287,175,842	81,152,769	52,226,577	133,379,346
2007	311,689,795	292,114,144	81,040,800	52,770,394	133,811,194
2008	318,040,086	296,867,228	80,791,611	53,309,501	134,101,112
2009	323,393,711	301,441,131	80,349,089	53,841,855	134,190,944
2010	326,665,185	305,825,332	79,462,483	54,349,938	133,812,421
2011	331,322,580	310,071,852	78,946,397	54,871,235	133,817,631
2012	336,558,687	314,192,400	78,598,005	55,403,746	134,001,752
2013	341,696,621	318,193,150	78,252,143	55,941,878	134,194,021
2014	347,532,813	322,097,173	78,090,983	56,496,104	134,587,087
2015	352,468,670	325,894,689	77,735,969	57,048,339	134,784,308
2016	358,093,994	329,612,449	77,560,493	57,615,008	135,175,501
2017	363,667,094	333,252,273	77,385,155	58,189,749	135,574,903
2018	369,267,624	336,821,957	77,227,292	58,772,995	136,000,287
2019	374,964,846	340,328,971	77,101,416	59,365,498	136,466,914
2020 ^c	380,483,298	343,775,092	76,941,856	59,963,639	136,905,495

^a HWP-energy and HWP-without energy pools. HWP C emissions were converted to CO₂ equivalents at the request of the California Board of Forestry and Fire Protection. Multiply carbon (C) by 44/12 to calculate equivalent carbon dioxide (CO_{2e}).

^b Sum of products in use (HWP-use) and SWDS (HWP-SWDS).

^c Although no harvest records are entered for 2020, the cumulative dispositions from prior year harvests are estimated in 2020. Note that HWP storage and emissions as a result of the 2019 harvest are reported by the model in 2020.

^d Note: previous reports did not move harvested carbon to SWDS pool until 2 years following harvest, rather than 1 year following harvest in this report. Lag times built into the original model were modified to allow for better quality assurance of calculations.

Figure 1.3. The flux in carbon stocks in HWP from the previous year using the IPCC production approach, 1952-2019. Negative values for products in use or at SWDS indicate that the carbon in those pools are shrinking, while positive values indicate that those pools are growing. The net stock change trend line is the sum of net flux for SWDS and products in use.

* Please note that this entire figure is updated from fig 6.3 in the 2017 report due to revisions in end-use ratios, board foot to cubic foot conversions for 2013-2019, and model code to improve user ability to verify calculations. These updates first occurred with the 2018 data update.

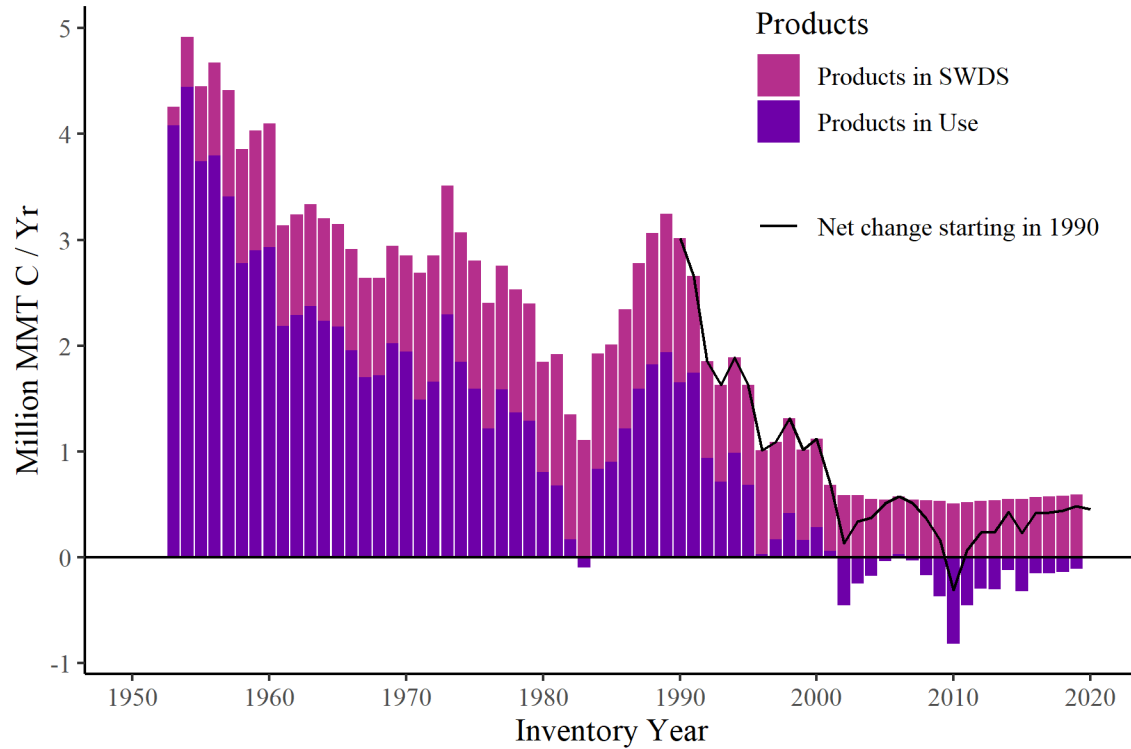


Table 6.3. Selected total stock change (net flux) in cumulative HWP stocks for products in SWDS, products in use, and total from harvests.

** Please note that all numbers in this table are updated from table 6.3 in the 2017 report due revisions in end-use ratios, board foot to cubic foot conversions for 2013-2019, and model code to improve user ability to verify calculations. These updates first occurred with the 2018 data update.*

Inventory year	Products in SWDS ^c	Products in use	Total stock change ^a
	MT CO ₂ e per year		
1960	4,290,160	10,746,094	15,036,254
1970	3,329,595	7,195,258	10,524,852
1980	3,820,113	2,937,083	6,757,196
1990	5,007,956	6,112,797	11,120,752
1995	3,458,870	2,726,915	6,185,785
2000	3,071,331	816,276	3,887,607
2001	2,280,525	404,928	2,685,454
2002	2,150,948	-1,545,270	605,678
2003	2,155,755	-1,006,577	1,149,178
2004	2,014,873	-845,372	1,169,501
2005	1,996,379	-413,731	1,582,648
2006	1,998,905	-180,088	1,818,817
2007	1,993,996	-410,554	1,583,442
2008	1,976,724	-913,692	1,063,032
2009	1,951,966	-1,622,581	329,385
2010	1,862,972	-3,250,888	-1,387,917
2011	1,911,420	-1,892,317	19,103
2012	1,952,542	-1,277,434	675,107
2013	1,973,150	-1,268,161	704,989
2014	2,032,161	-590,921	1,441,240
2015	2,024,862	-1,301,717	723,145
2016	2,077,786	-643,413	1,434,372
2017	2,107,383	-642,907	1,464,476
2018	2,138,569	-578,831	1,559,739

Inventory year	Products in SWDS ^c	Products in use	Total stock change ^a
	MT CO ₂ e per year		
2019	2,172,513	-461,544	1,710,969
2020 ^b	2,193,183	-585,0550	1,608,128

^a Net annual change (flux) in CO₂e in products in use and SWDS. HWP C emissions were converted to CO₂ equivalents at the request of the California Board of Forestry and Fire Protection.

^b Although no harvest records are entered for 2020, the annual net flux from the prior year harvest is estimated for 2020. Note that HWP storage and emissions as a result of the 2019 harvest are reported by the model in 2020.

^c Note: previous reports did not move harvested carbon to SWDS pool until 2 years following harvest, rather than 1 year following harvest in this report. Lag times built into the original model were modified to allow for better quality assurance of calculations.

Table 6.4. Selected yearly carbon dispositions. These calculations quantify cumulative carbon storage from HWP products in use and in SWDS, and cumulative emissions with and without energy capture using the IPCC production approach.

** Please note that all numbers in this table are updated from table 6.4 in the 2017 report due to revisions in end-use ratios, board foot to cubic foot conversions for 2013-2019, and model code to improve user ability to verify calculations. These updates first occurred with the 2018 data update.*

Disposition category	2020 ^a	2019	2010	2000	1990
Cumulative storage (MT C per year)					
Products in use:					
End-use products	76,305,416	76,451,864	78,497,630	80,691,997	74,553,052
Recovered products	636,440	649,552	964,853	1,438,802	967,823
Products in SWDS^b:					
Carbon in landfills	55,884,466	55,127,602	48,260,459	39,346,446	24,496,449
Carbon in dumps	4,079,173	4,237,896	6,089,479	9,444,481	15,226,107
Cumulative emissions (MT CO₂e per year)					
Emissions w/ energy capture:					
Emitted from fuelwood	380,483,298	374,964,846	326,665,185	284,541,705	237,574,946
Emitted from burning discarded products		0	0	0	0
Emissions w/o energy capture:					
Emitted from landfills	42,666,798	41,701,319	32,450,772	20,809,292	10,028,960
Emitted from dumps	133,845,591	132,390,899	124,573,335	110,949,275	88,112,588
Emitted from recovered products	50,225,275	49,965,172	43,892,985	32,440,875	20,321,488
Emitted from burning	105,776,482	104,993,710	97,750,401	87,701,254	71,952,176
Emitted from compost	11,727,260	11,277,872	7,157,838	1,968,635	0

^a Although no harvest records are entered for 2020, the annual net flux from the prior year harvest is estimated for 2020. Note that HWP storage and emissions as a result of the 2019 harvest are reported by the model in 2020.

^b Note: previous reports did not move harvested carbon to SWDS pool until 2 years following harvest, rather than 1 year following harvest in this report. Lag times built into the original model were modified to allow for better quality assurance of calculations.

Figure 6.4. Cumulative total carbon stored in HWP, by owner group, manufactured from California timber using the IPCC production approach, 1952-2019. Carbon in HWP includes both products that are still in use and carbon stored at solid waste disposal sites (SWDS). “Other public and Tribal” includes BLM, State and other public, and Tribal lands.

** Please note that this entire figure is updated from fig 6.4 in the 2017 due to revisions in end-use ratios, board foot to cubic foot conversions for 2013-2019, and model code to improve user ability to verify calculations. These updates first occurred with the 2018 data update.*

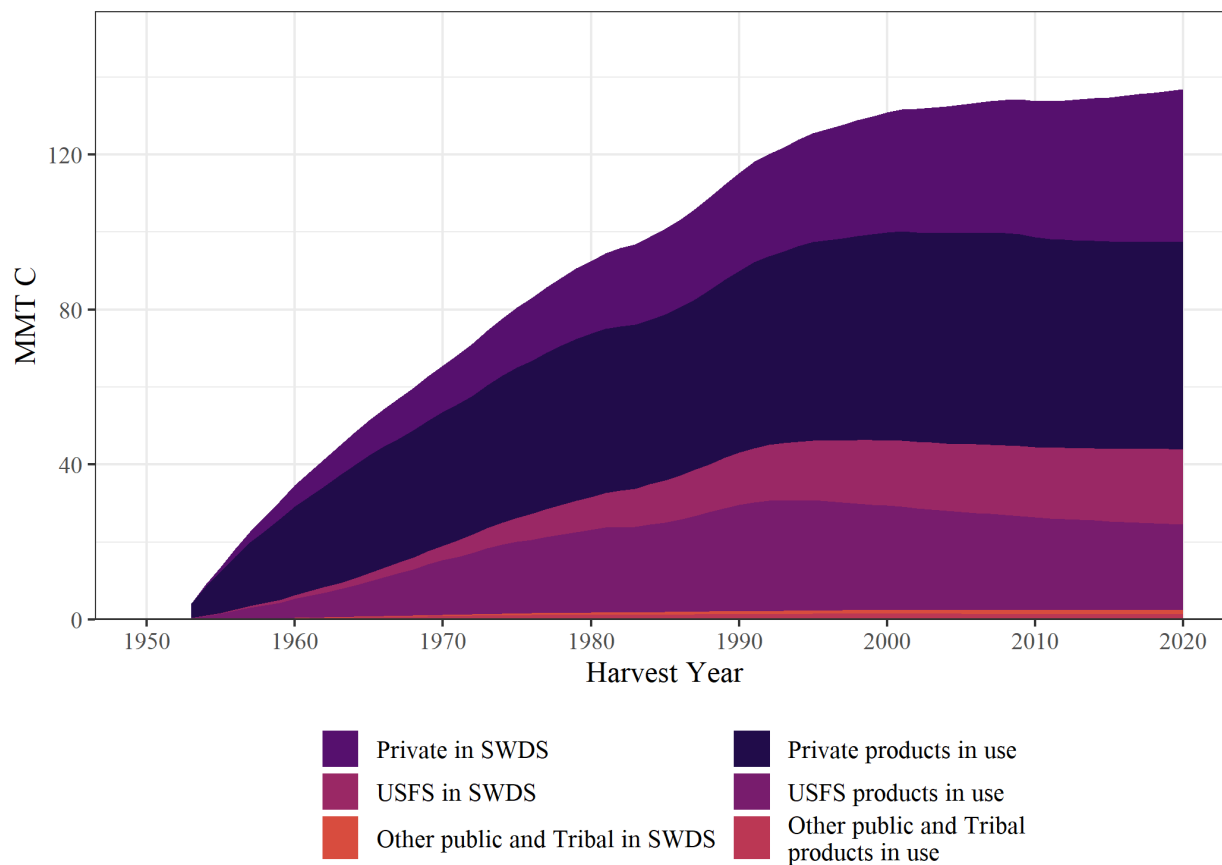


Figure 6.5. Cumulative total carbon stored in HWP, by State and other public, Tribal, and BLM owner groups, manufactured from California timber using the IPCC production approach, 1952-2019. Carbon in HWP includes both products that are still in use and carbon stored at solid waste disposal sites (SWDS).

** Please note that this entire figure is updated from fig 6.5 in the 2017 report due to revisions in end-use ratios, board foot to cubic foot conversions for 2013-2019, and model code to improve user ability to verify calculations. These updates first occurred with the 2018 data update.*

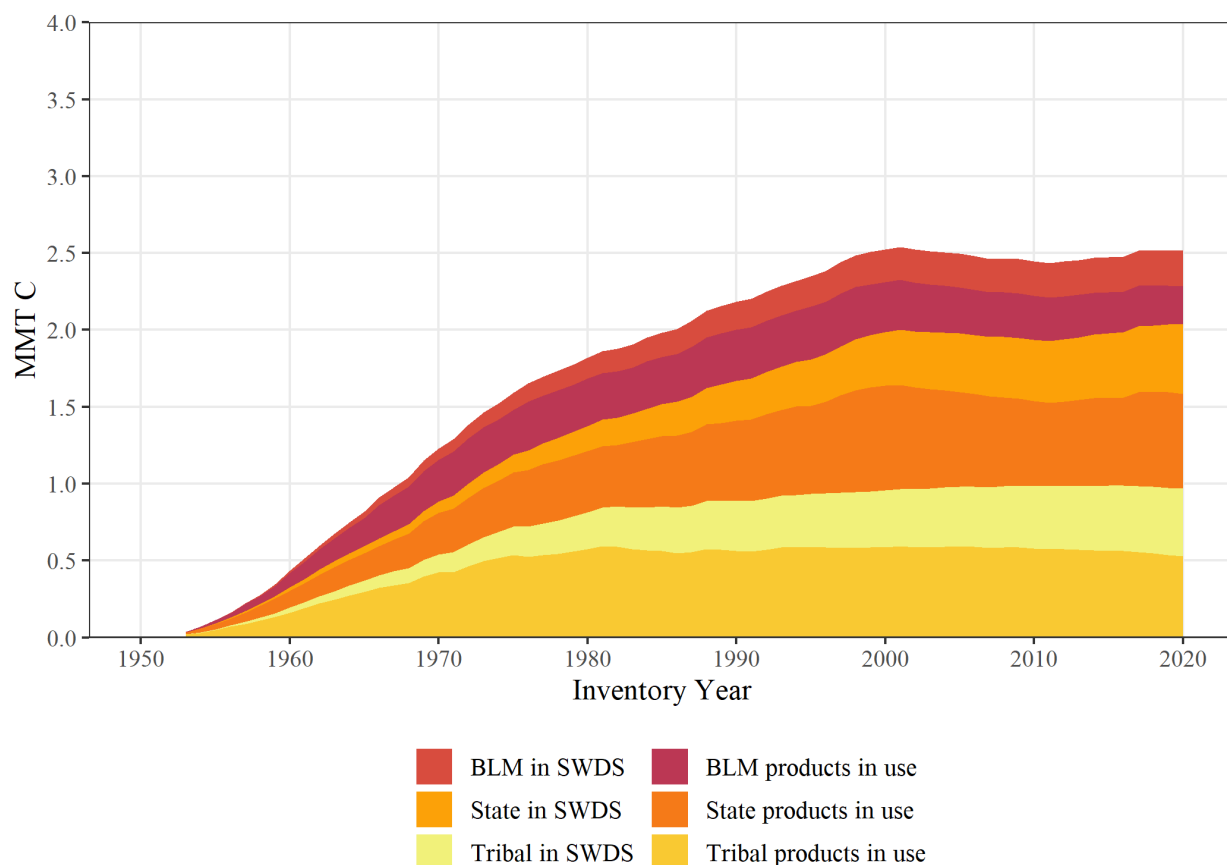


Table 6.5. Average HWP C stocks by owner group for the 2019 California AB 1504 reporting period (2010 – 2019 harvests).

Please note majority of changes in stock from the previous report primarily reflects revisions in end-use ratios, board foot to cubic foot conversions for 2013-2019, and model code to improve user ability to verify calculations. These updates first occurred with the 2018 data update.

Owner group	Products in use	SWDS ^a	Total
		MT C	
Private	53,520,912	37,485,447	91,006,358
USFS	22,856,763	18,804,870	41,661,633
BLM	265,493	228,795	494,287
State and other public	582,450	423,340	1,005,790
Tribal	558,354	424,368	982,721
All owners	77,783,971	57,366,819	135,150,790

^a Note: previous reports did not move harvested carbon to SWDS pool until 2 years following harvest, rather than 1 year following harvest in this report. Lag times built into the original model were modified to allow for better quality assurance of calculations.

Table 6.6. Average of HWP C flux by owner group and pool for the 2019 California AB 1504 reporting periods.

Please note majority of changes in stock from the previous report primarily reflects revisions in end-use ratios, board foot to cubic foot conversions for 2013-2019, and model code to improve user ability to verify calculations. These updates first occurred with the 2018 data update.

Owner group	Products in use	SWDS ^a	Total
		MT CO ₂ e	
Private	-324,650	1,513,820	1,189,171
USFS	-858,446	446,175	-412,270
BLM	-12,517	3,693	-8,824
State and other public	-6,302	15,489	9,187
Tribal	-11,553	12,774	1,221
All owners	-1,213,468	1,991,952	778,484

^a Note: previous reports did not move harvested carbon to SWDS pool until 2 years following harvest, rather than 1 year following harvest in this report. Lag times built into the original model were modified to allow for better quality assurance of calculations.

Table 6.7. Confidence intervals for cumulative carbon in HWP for selected years for harvests beginning in 1960 using the IPCC production approach. Means and confidence intervals were calculated using Monte Carlo simulation (2,000 iterations).

Inventory year	Model Simulation Mean Total in HWP pool (MT C)	MC Simulation Mean Total in HWP pool (MT C)	90% Confidence interval	
			Lower limit 5% (MT C)	Upper limit 95% (MT C)
1960	34,698,385	35,123,656	27,685,355	42,689,477
1970	65,604,885	66,223,610	52,205,652	80,393,425
1980	92,491,496	93,171,793	73,567,141	112,926,259
1995	125,470,865	126,203,491	104,934,413	148,620,204
2000	130,921,726	131,472,131	108,886,545	153,544,426
2001	131,654,122	132,173,029	109,499,694	154,344,706
2002	131,819,307	132,311,586	109,671,099	154,663,916
2003	132,132,719	132,599,966	109,995,092	154,829,667
2004	132,451,674	132,894,879	110,319,700	155,072,827
2005	132,883,306	133,303,688	110,682,071	155,449,356
2006	133,379,346	133,778,020	111,125,686	155,951,251
2007	133,811,194	134,189,182	111,526,751	156,442,749
2008	134,101,112	134,459,393	111,816,540	156,939,805
2009	134,190,944	134,530,404	111,904,174	156,981,620
2010	133,812,421	134,133,921	111,567,355	156,487,719
2011	133,817,631	134,121,967	111,530,560	156,540,576
2012	134,001,752	134,289,675	111,684,589	156,837,832
2013	134,194,021	134,466,258	111,881,013	157,004,501
2014	134,587,087	134,844,331	112,242,646	157,493,839
2015	134,784,308	135,027,249	112,409,961	157,757,753
2016	135,175,501	135,404,797	112,733,781	158,225,375

2017	135,574,903	135,791,197	113,077,359	158,752,372
2018	136,000,287	136,204,198	113,447,705	159,389,280
2019	136,466,914	136,659,043	113,880,570	160,075,692
2020 ^a	136,905,495	137,086,421	114,203,906	160,650,870

^a Although no harvest records are entered for 2020, cumulative HWP C confidence intervals for the prior year's harvest are estimated in 2020. Note that HWP storage and emissions as a result of the 2019 harvest are reported by the model in 2020.

Figure 6.6. Monte Carlo simulated mean and 90% confidence interval for the cumulative amount of HWP C in Products in use and SWDS pools combined.

**Note this is a new figure that was not included in previous reports or data updates.*

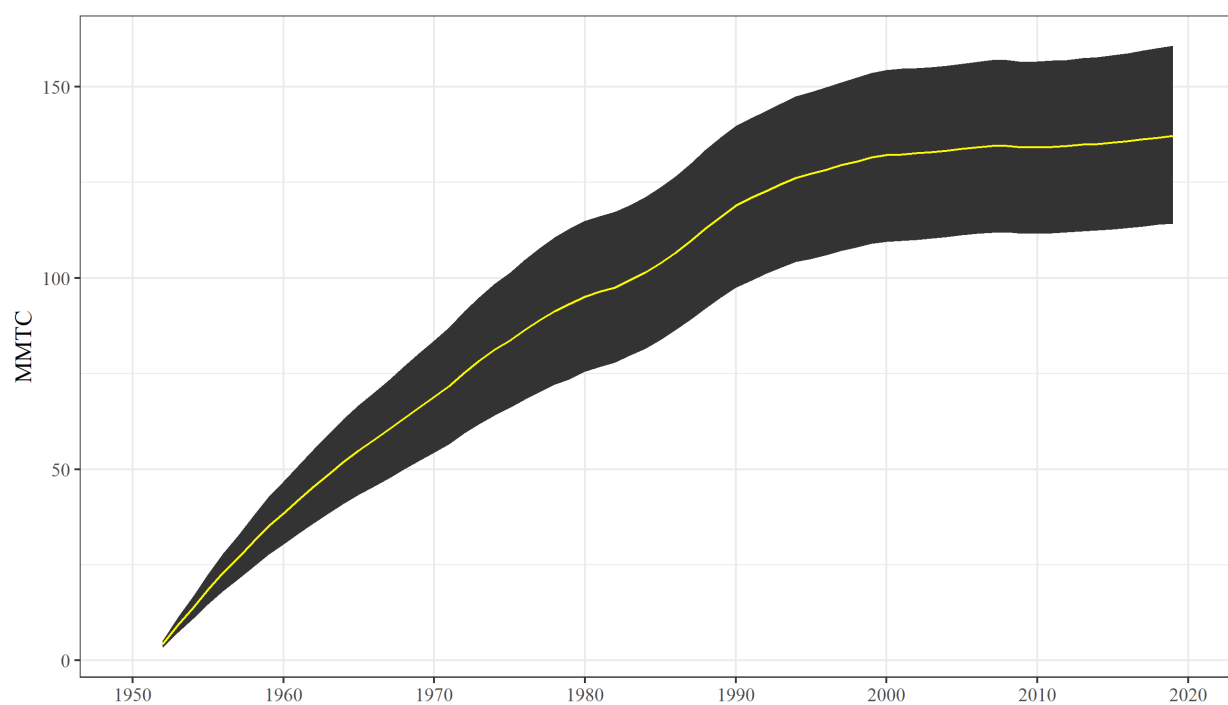


Figure 6.7. Monte Carlo simulation mean and 90% confidence intervals for the cumulative amount of carbon in products in use, solid waste disposal sites (SWDS), emissions with energy capture and emissions without energy capture for California's 1952-2019 timber harvests.

**Note this is a new figure that was not included in previous reports or data updates*

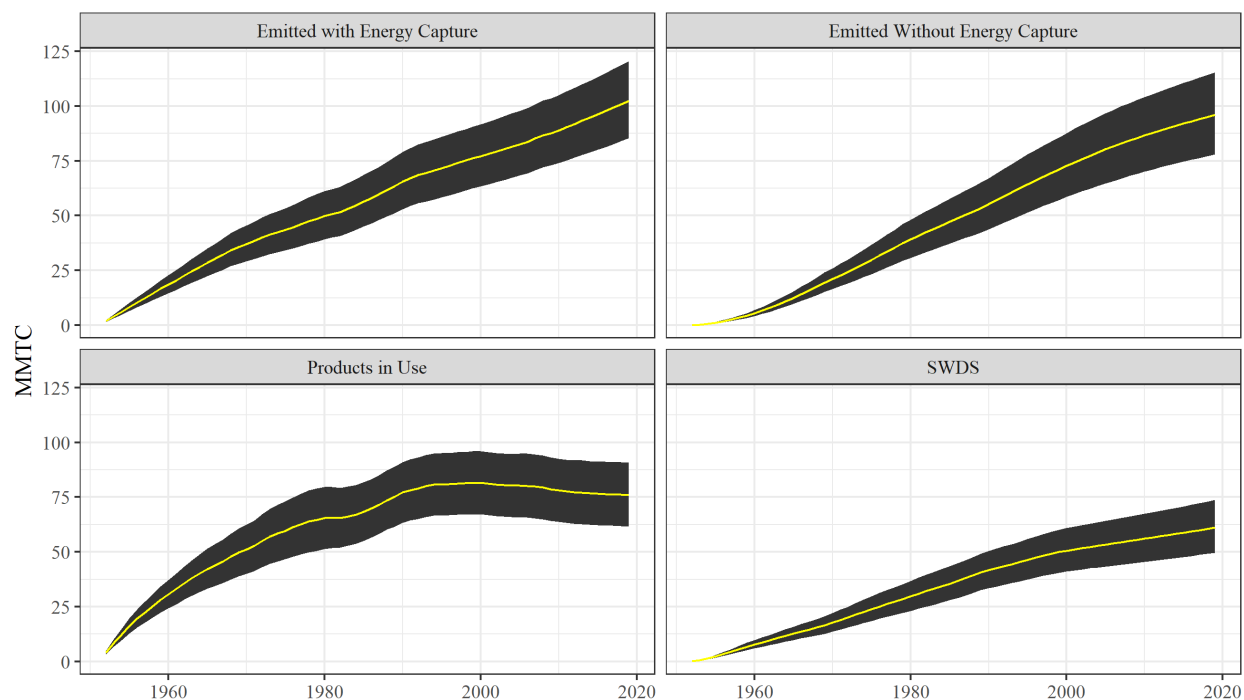


Table 6.8. Estimates of HWP C (in MMT) for Products in use, at SWDS, Emissions with Energy Capture, and Emissions Without Energy Capture for the 2019 HWP C model output compared with means and 90% confidence intervals from the MC simulation.

**Note this is a new figure that was not included in previous reports or data updates. Previous table 6.8 now table 6.9*

Disposition Categories	HWP C Model Output	MC Simulation Mean and 90% Confidence Interval
Products in Use	76.9	61.6 < 76.0 < 90.8
Solid Waste Disposal Sites	60.0	49.6 < 61.1 < 73.4
Emissions With Energy Capture	103.8	85.2 < 102.3 < 120.6
Emissions Without Energy Capture	93.8	78.0 < 96.0 < 115.4

Table 6.9: HWP carbon pools by 10-year inventory period, 2002-2011 through 2010-2019¹.

**Note: this table number updated from 6.8 in previous reports to 6.9 beginning with this data update.*

	2002-2011	2003-2012	2004-2013	2005-2014	2006-2015	2007-2016	2008-2017	2009-2018	2010-2019	2011-2020
	Metric tons C									
Private:										
Products in use	54,317,779	54,282,178	54,226,807	54,163,199	54,066,147	53,954,890	53,825,623	53,696,555	53,581,254	53,520,912
SWDS	33,769,706	34,176,219	34,580,575	34,986,478	35,393,786	35,803,862	36,216,862	36,633,903	37,055,878	37,485,447
Total	88,087,485	88,458,398	88,807,382	89,149,676	89,459,932	89,758,752	90,042,486	90,330,457	90,637,133	91,006,358
USFS:										
Products in use	24,963,857	24,693,624	24,433,864	24,186,975	23,947,996	23,708,783	23,476,022	23,252,496	23,046,183	22,856,763
SWDS	17,709,712	17,835,125	17,957,885	18,079,582	18,200,626	18,320,942	18,441,059	18,561,370	18,682,536	18,804,870
Total	42,673,569	42,528,749	42,391,749	42,266,557	42,148,621	42,029,725	41,917,081	41,813,866	41,728,719	41,661,633
BLM:										
Products in use	296,216	292,450	288,840	285,497	282,266	279,230	276,337	272,865	269,162	265,493
SWDS	219,730	220,766	221,779	222,792	223,804	224,826	225,857	226,859	227,835	228,795
Total	515,946	513,216	510,619	508,289	506,070	504,056	502,195	499,724	496,997	494,287
State and other public:										
Products in use	597,920	586,727	577,896	571,851	567,411	564,652	566,791	570,629	576,137	582,450
SWDS	385,321	389,309	393,153	396,988	400,838	404,761	408,997	413,489	418,274	423,340
Total	983,240	976,036	971,048	968,839	968,249	969,413	975,788	984,118	994,411	1,005,790
Tribal:										
Products in use	586,711	585,325	583,584	581,095	578,206	575,242	572,460	568,257	563,298	558,354
SWDS	393,014	396,486	399,958	403,425	406,903	410,409	413,959	417,464	420,926	424,368
Total	979,725	981,811	983,542	984,520	985,109	985,651	986,419	985,721	984,223	982,721
All owners:										
Products in use	80,762,483	80,440,303	80,110,990	79,788,616	79,442,025	79,082,797	78,717,233	78,360,801	78,036,034	77,783,971
SWDS	52,477,483	53,017,907	53,553,350	54,089,265	54,625,957	55,164,800	55,706,735	56,253,085	56,805,449	57,366,819
Total	133,239,966	133,458,210	133,664,340	133,877,882	134,067,982	134,247,597	134,423,968	134,613,886	134,841,483	135,150,790

¹ Note that 2002-2011 through 2011-2020 correspond with FIA periods of 2001-2010 through 2010-2019; all time periods recalculated to reflect revisions in end-use ratios, board foot to cubic foot conversions for 2013-2019, and model code to improve user ability to verify calculations. (e.g. Previous reports did not move harvested carbon to recycled or SWDS pools until 2 years following harvest, rather than 1 year following harvest in this report. Lag times built into the original model were modified to allow for better quality assurance of calculations.) These updates first occurred with the 2018 data update.

5 Forest ecosystem and harvested wood product carbon flux and stock summary, select table and figure updates

Table 7.1: Statewide average annual net CO₂e flux from forest ecosystem and harvested wood product pools in forest land remaining forest land for the 2019 CA AB 1504 reporting period.

	Net flux	
	Total	SE
	<i>million metric tons CO₂ equivalent</i>	
Aboveground live¹	13.6	1.9
Aboveground dead²	8.6	1.3
Belowground live³	2.8	0.4
Belowground dead⁴	1.3	0.2
NET FLUX	26.3	2.0
Soil Organic C	-0.3	0.3
TOTAL FOREST NET FLUX	26.0	2.1
Harvested Wood		
Products in use	-1.2	--
Products at SWDS	2.0	--
HWP NET FLUX	0.8	--
TOTAL NET FLUX	26.8	2.1 ⁵

¹includes live trees, foliage, and understory veg

²includes standing and down dead wood, forest floor

³includes live tree and understory veg roots

⁴includes dead tree roots

⁵Excludes HWP C sampling error. There is no HWP C sampling error, just modeling error.

Totals may be off due to rounding

Table 7.2: Statewide average annual net CO₂e flux from forest ecosystem and harvested wood product pools, including non-CO₂ emissions from forest fires in forest land remaining forest land (FF) and from changes due to forest land conversions (i.e., by forest land-use and land-use change) for the 2019 CA AB 1504 reporting period.

<u>Land-use category</u>	Total million metric tons CO ₂ equivalent	SE¹
Forest land remaining forest land (FF)		
Forest ecosystem		
Changes in forest ecosystem carbon	26.0	2.1
Non-CO ₂ emissions from forest fires	-0.6	0.1
Harvested Wood		
Changes in HWP carbon	0.8	
NET FLUX	26.2	2.1
Forest land conversions (LF)		
Changes in forest carbon, forest to non-forest	-2.5	0.3
Changes in forest carbon, non-forest to forest	1.5	0.2
TOTAL NET FLUX (LF)	-1.0	0.8
TOTAL NET FLUX (FF & LF)	25.2	2.1

¹Excludes HWP C sampling error. There is no HWP C sampling error, just modeling error

Totals may be off due to rounding

Table 7.3. Statewide average carbon stock for the 2019 CA AB 1504 reporting period.

Carbon pool	Stock (MMT C)
Forest Ecosystem¹	3,070.5
Harvested wood product²	135.2
Total carbon stock	3,205.7

¹For a complete breakdown of carbon stocks in the forest ecosystem pools, refer to table 4.12a

²For a complete breakdown of HWP C pools, refer to table 6.5

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Appendix 1: Forest carbon stock by forest type and region

A1.0 All Ecoregions

California (ecoregions) average annual net forestland CO₂e flux by pool and owner
2001-2009 to 2011-2019

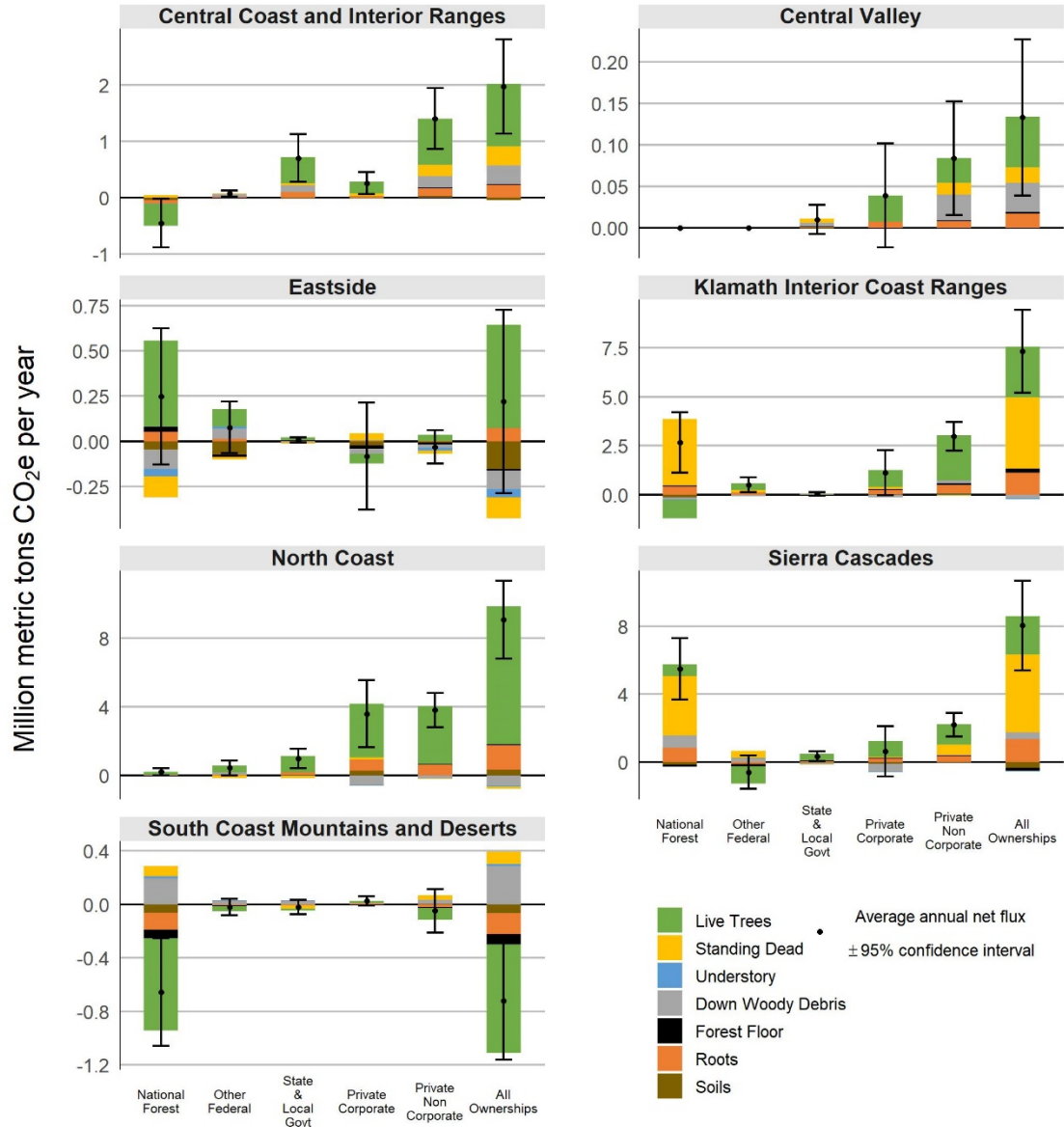


Figure A1.0: California Ecoregions average annual net forestland carbon flux by pool and ownership, 2001-2009 to 2011-2019 (MMT CO₂e/yr). Estimates exclude emissions from land-use changes. Roots includes belowground live and dead tree roots. Understory includes aboveground and belowground understory vegetation. Error bars represent the 95% confidence interval of estimated net flux. Figure derived from Appendix 2, Tables B2-8. ***Note – Y axis scale varies for each ecoregion; this is a new figure that was not included in previous reports.**

Table A 1.0.1: Forest land carbon stocks (thousand metric tons C) by forest type and pool, 2010-2019: All California

	Live Trees		Dead Trees		Roots		Understory		Down wood		Forest Floor		Soil		All pools	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand metric tons C</i>																
Softwoods:																
California mixed conifer	373,126	9,753	38,211	1,992	79,362	2,082	7,218	239	39,288	1,369	54,608	1,188	371,532	7,995	961,572	21,649
Douglas-fir	79,622	5,956	4,233	496	17,521	1,314	2,026	136	7,352	750	4,965	319	55,091	3,540	170,149	11,515
Fir / spruce / mountain hemlock	115,252	7,249	15,325	1,374	22,595	1,423	2,027	112	11,050	858	12,564	660	99,804	5,191	278,208	15,468
Western Hemlock / Sitka spruce	2,300	1,021	222	165	570	269	61	24	312	234	249	109	1,294	579	4,976	2,254
Lodgepole pine	28,826	2,516	3,365	417	6,724	585	950	92	4,178	554	4,921	376	39,940	3,019	88,673	6,877
Pinyon / juniper	6,087	489	553	96	1,397	107	3,198	169	1,942	227	2,585	160	52,937	2,892	68,224	3,728
Ponderosa pine	50,463	2,970	1,943	291	11,244	672	3,874	200	5,771	455	10,275	485	98,855	4,495	181,026	8,640
Redwood	87,287	9,909	3,401	532	16,989	1,873	1,137	95	7,099	888	3,170	256	38,784	3,115	157,550	15,303
Western juniper	9,359	837	413	86	1,720	159	4,172	268	1,262	153	3,385	220	59,899	3,608	79,554	4,878
Western white pine	3,220	783	456	132	717	173	212	48	427	131	729	155	6,524	1,337	12,208	2,561
Other western softwoods	7,488	1,085	949	204	1,784	276	1,054	125	1,404	256	2,259	235	24,600	2,470	39,300	4,128
Total	763,030	14,271	69,071	2,412	160,622	2,902	25,930	457	80,085	1,932	99,710	1,128	849,260	9,191	2,041,439	26,376
Hardwoods:																
Alder / maple	9,038	1,715	907	248	2,028	371	586	82	1,694	371	806	127	9,723	1,518	24,564	4,045
Aspen / birch	586	261	63	34	120	51	189	47	189	89	213	61	3,006	867	4,289	1,241
Elm / ash / cottonwood	926	397	33	19	172	77	207	49	87	35	99	36	1,526	535	2,908	1,092
Tanoak / laurel	98,845	6,188	4,362	467	20,097	1,259	3,578	184	10,140	814	6,984	369	77,900	4,115	221,232	12,262
Western oak	170,445	5,329	14,359	1,031	37,211	1,152	21,304	397	17,928	800	21,336	475	377,454	7,543	654,090	14,442
Woodland hardwoods	545	163	123	46	115	31	407	72	174	70	218	47	3,450	723	4,814	990
Exotic hardwoods	3	3	--	--	1	1	25	18	7	7	8	6	137	98	164	117
Other hardwoods	13,806	2,370	1,715	599	3,213	539	1,368	127	2,457	492	1,995	210	26,920	2,733	51,063	5,877
Total	294,193	8,080	21,562	1,289	62,957	1,700	27,663	440	32,676	1,268	31,660	593	500,117	8,428	963,124	18,541
Nonstocked	1,581	323	8,399	1,425	2,118	316	2,751	173	3,921	500	2,764	198	45,132	3,161	65,888	4,950
All forest types	1,058,805	13,276	99,032	2,930	225,698	2,670	56,344	568	116,683	2,146	134,134	923	1,394,509	8,411	3,070,451	22,269

Note: Totals may be of because of rounding

Table A 1.0.2: Forest land carbon stocks (thousand metric tons C) by forest type and land status, 2010-2019: All California

	Unreserved Forests:				Reserved Forests:				All forest land	
	Timberland		Other Forest		Productive		Other Forest		Total	SE
	Total	SE	Total	SE	Total	SE	Total	SE		
	<i>Thousand metric tons C</i>									
Softwoods:										
California mixed conifer	764,323	18,950	2,568	1,205	193,849	11,455	832	794	961,572	21,649
Douglas-fir	127,655	9,898	--	--	40,661	6,450	1,833	944	170,149	11,515
Fir / spruce / mountain hemlock	189,618	12,219	2,202	1,176	81,754	9,305	4,633	1,876	278,208	15,468
Western Hemlock / Sitka spruce	4,707	2,238	--	--	269	267	--	--	4,976	2,254
Lodgepole pine	23,989	3,657	4,568	1,632	43,301	5,098	16,815	2,962	88,673	6,877
Pinyon / juniper	672	457	43,940	2,922	307	272	23,305	2,414	68,224	3,728
Ponderosa pine	156,402	7,897	2,770	1,013	19,620	3,339	2,234	902	181,026	8,640
Redwood	116,141	10,641	--	--	41,408	11,176	--	--	157,550	15,303
Western juniper	11,541	2,030	58,984	4,011	7,065	1,949	1,964	856	79,554	4,878
Western white pine	2,001	999	--	--	7,180	2,036	3,027	1,225	12,208	2,561
Other western softwoods	5,719	1,745	5,041	1,387	4,606	1,559	23,933	3,180	39,300	4,128
Total	1,402,770	21,404	120,074	5,584	440,020	17,496	78,575	5,333	2,041,439	26,376
Hardwoods:										
Alder / maple	17,039	3,238	1,557	683	5,423	2,278	545	481	24,564	4,045
Aspen / birch	949	626	1,341	644	1,072	633	927	576	4,289	1,241
Elm / ash / cottonwood	--	--	2,203	976	26	25	679	489	2,908	1,092
Tanoak / laurel	155,988	10,206	12,208	2,562	42,928	6,278	10,109	2,674	221,232	12,262
Western oak	189,575	10,418	379,837	9,980	27,285	4,022	57,392	4,787	654,090	14,442
Woodland hardwoods	--	--	3,620	875	--	--	1,194	464	4,814	990
Exotic hardwoods	95	96	69	68	--	--	--	--	164	117
Other hardwoods	32,298	4,928	10,017	1,822	6,956	2,594	1,792	716	51,063	5,877
Total	395,945	14,814	410,852	10,214	83,690	7,936	72,637	5,528	963,124	18,541
Nonstocked	38,123	3,727	7,518	1,395	16,087	2,783	4,160	1,125	65,888	4,950
All forest types	1,836,838	19,545	538,444	11,445	539,798	17,012	155,372	7,610	3,070,451	22,269

Note: Totals may be of because of rounding

A1.1 Central Coast and Interior Ranges

Central Coast and Interior Ranges
Average carbon stocks by pool and forest type
2010-2019

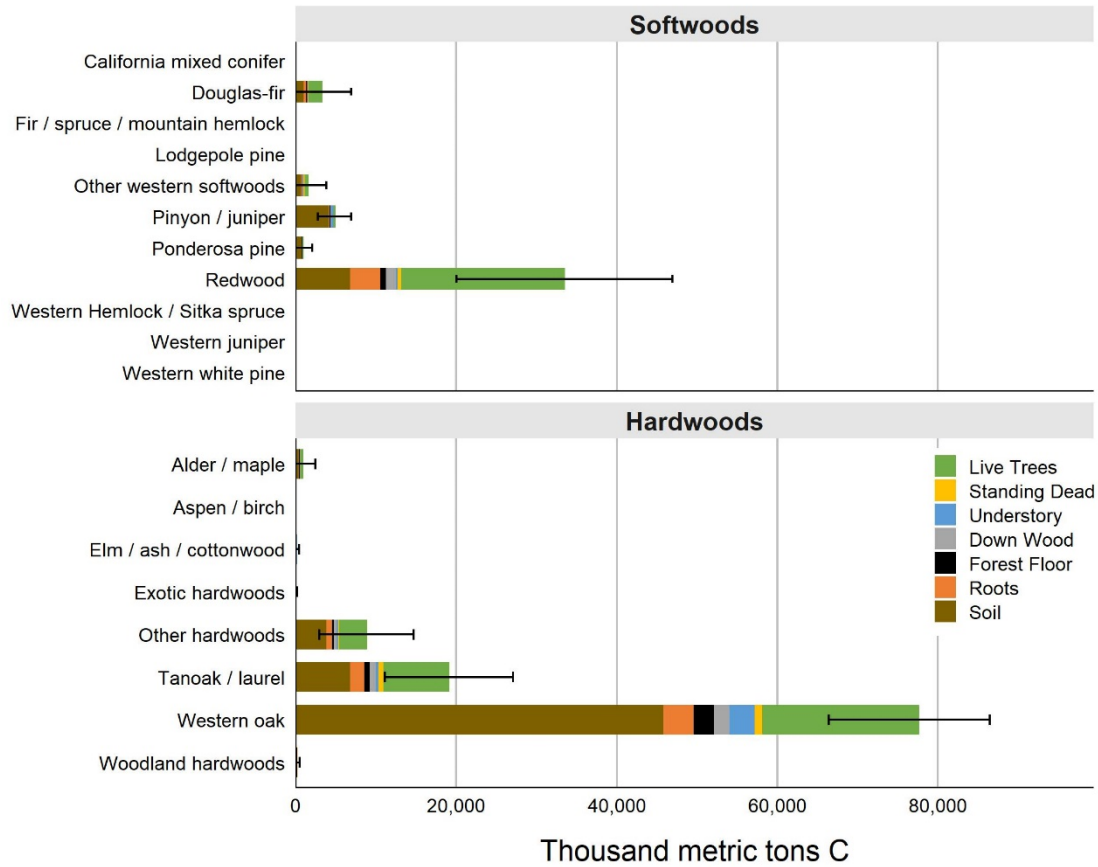


Figure A1.1.1. Central Coast and Interior Ranges: Average carbon stock by pool and forest type, 2010-2019 (thousand metric tons C). Error bars represent the 95% confidence interval of total stock for each forest type. Figure derived from Table A1.1.1. **note: "non-stocked" not depicted in this figure.*

Table A 1.1.1: Forest land carbon stocks (thousand metric tons C) by forest type and pool, 2010-2019: Central Coast and Interior Ranges

	Live Trees		Dead Trees		Roots		Understory		Down wood		Forest Floor		Soil		All pools	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand metric tons C</i>																
Softwoods:																
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	1,714	970	25	17	369	214	27	14	98	61	109	60	988	543	3,325	1,849
Fir / spruce / mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pinyon / juniper	220	61	11	5	46	12	306	61	33	19	142	33	4,189	907	4,863	1,056
Ponderosa pine	106	61	6	4	23	14	52	33	14	11	49	27	776	438	1,009	560
Redwood	20,430	4,289	460	142	3,776	791	202	41	1,247	371	667	131	6,794	1,328	33,510	6,863
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	500	406	148	119	157	127	16	13	60	47	59	38	696	443	1,636	1,131
Total	22,969	4,380	651	185	4,371	821	604	82	1,451	377	1,026	154	13,442	1,797	44,344	7,231
Hardwoods:																
Alder / maple	361	347	2	2	75	74	27	18	43	36	39	29	403	302	937	775
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	45	37	--	--	7	6	37	21	8	8	6	4	113	86	184	131
Tanoak / laurel	8,248	2,137	609	261	1,737	430	348	62	716	204	715	138	6,813	1,300	19,086	4,073
Western oak	19,506	1,626	921	187	3,767	308	3,154	192	1,933	250	2,519	169	45,816	2,977	76,415	5,116
Woodland hardwoods	8	8	29	24	7	5	30	19	11	9	9	6	159	103	230	149
Exotic hardwoods	--	--	--	--	--	--	14	14	--	--	4	4	61	60	69	68
Other hardwoods	3,464	1,523	160	77	714	313	187	48	309	134	254	75	3,813	1,083	8,838	3,008
Total	31,632	2,969	1,720	330	6,307	592	3,796	209	3,020	346	3,547	224	57,178	3,337	105,759	6,926
Nonstocked	85	58	11	9	20	12	59	27	13	7	33	19	616	376	807	448
All forest types	54,686	5,235	2,382	378	10,698	999	4,459	226	4,484	521	4,606	269	71,236	3,767	150,910	9,900

Note: Totals may be of because of rounding

Central Coast and Interior Ranges
Average carbon stocks by land status and forest type
2010-2019

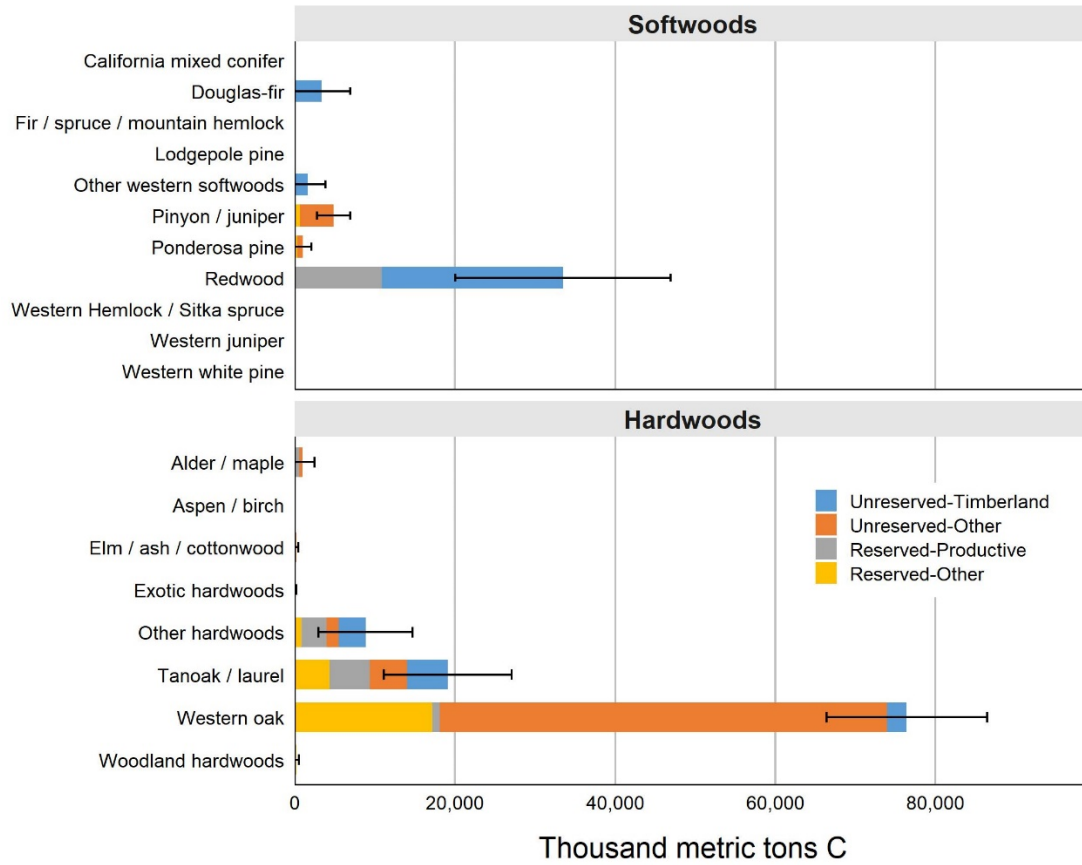


Figure A1.1.2. Central Coast and Interior Ranges: Average forest carbon stock by land status and forest type, 2010-2019 (thousand metric tons C). Error bars represent the 95% confidence interval of total stock for each forest type. Figure derived from Table A1.1.2. **note: “non-stocked” not depicted in this figure.*

Table A 1.1.2: Forest land carbon stocks (thousand metric tons C) by forest type and land status, 2010-2019: Central Coast and Interior Ranges

	Unreserved Forests:				Reserved Forests:				All forest land	
	Timberland		Other Forest		Productive		Other Forest		Total	SE
	Total	SE	Total	SE	Total	SE	Total	SE		
	<i>Thousand metric tons C</i>									
Softwoods:										
California mixed conifer	--	--	--	--	--	--	--	--	--	--
Douglas-fir	3,325	1,849	--	--	--	--	--	--	3,325	1,849
Fir / spruce / mountain hemlock	--	--	--	--	--	--	--	--	--	--
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	--	--
Pinyon / juniper	--	--	4,230	991	--	--	633	371	4,863	1,056
Ponderosa pine	--	--	681	487	--	--	329	277	1,009	560
Redwood	22,613	5,330	--	--	10,897	4,132	--	--	33,510	6,863
Western juniper	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--
Other western softwoods	1,636	1,131	--	--	--	--	--	--	1,636	1,131
Total	27,575	5,672	4,910	1,104	10,897	4,132	962	463	44,344	7,231
Hardwoods:										
Alder / maple	--	--	341	297	597	716	--	--	937	775
Aspen / birch	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	184	131	--	--	--	--	184	131
Tanoak / laurel	5,097	2,181	4,635	1,510	4,984	2,690	4,370	1,584	19,086	4,073
Western oak	2,461	1,165	55,855	4,385	929	618	17,170	2,478	76,415	5,116
Woodland hardwoods	--	--	--	--	--	--	230	149	230	149
Exotic hardwoods	--	--	69	68	--	--	--	--	69	68
Other hardwoods	3,359	2,043	1,502	729	3,142	2,083	835	441	8,838	3,008
Total	10,917	3,196	62,585	4,660	9,651	3,412	22,605	2,925	105,759	6,926
Nonstocked	153	172	132	104	471	396	51	56	807	448
All forest types	38,645	6,530	67,628	4,776	21,019	5,240	23,618	2,960	150,910	9,900

Note: Totals may be off because of rounding

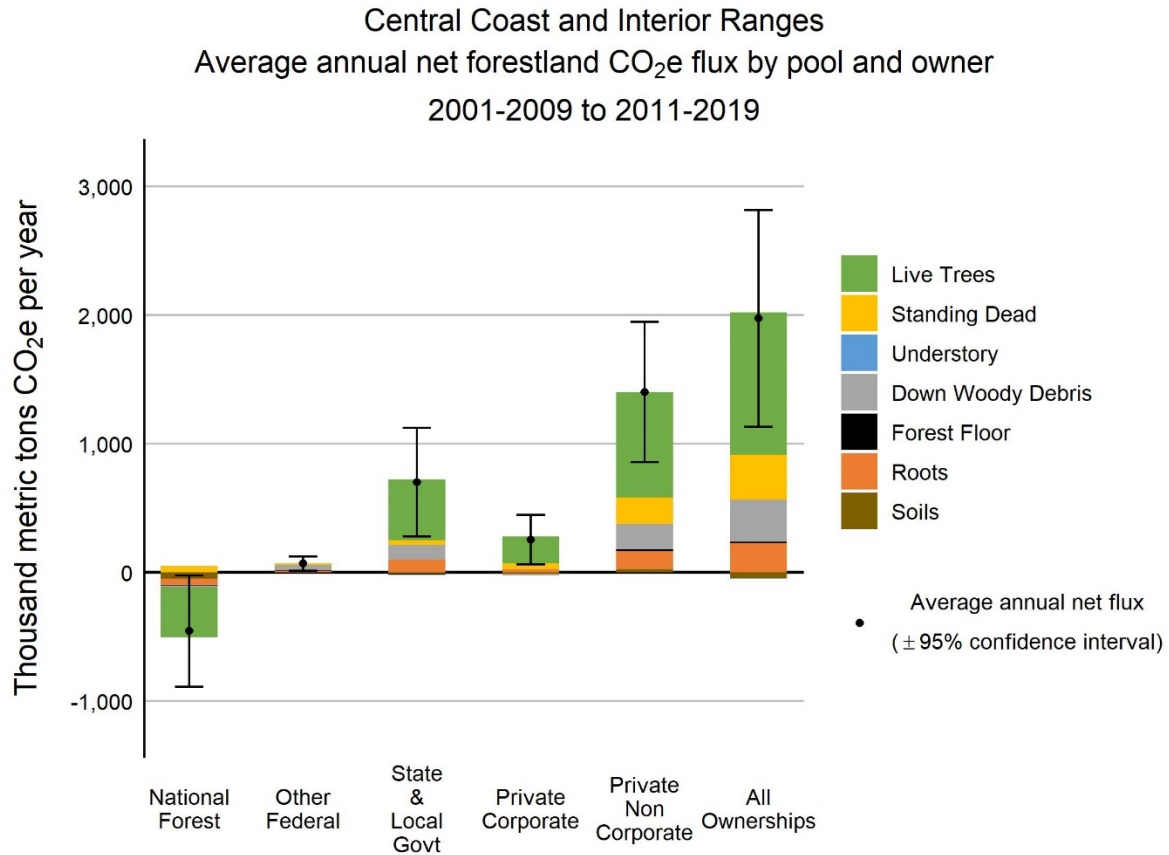


Figure A1.1.3. Central Coast and Interior Ranges average annual net forestland carbon flux by pool and ownership, 2001-2009 to 2011-2019 (MMT CO₂e/yr). Estimates exclude emissions from land-use changes. Roots includes belowground live and dead tree roots. Understory includes aboveground and belowground understory vegetation. Error bars represent the 95% confidence interval of estimated net flux. Figure derived from Appendix 2, Table B2.

**Note: this is a new figure that was not included in previous reports.*

A1.2 Central Valley

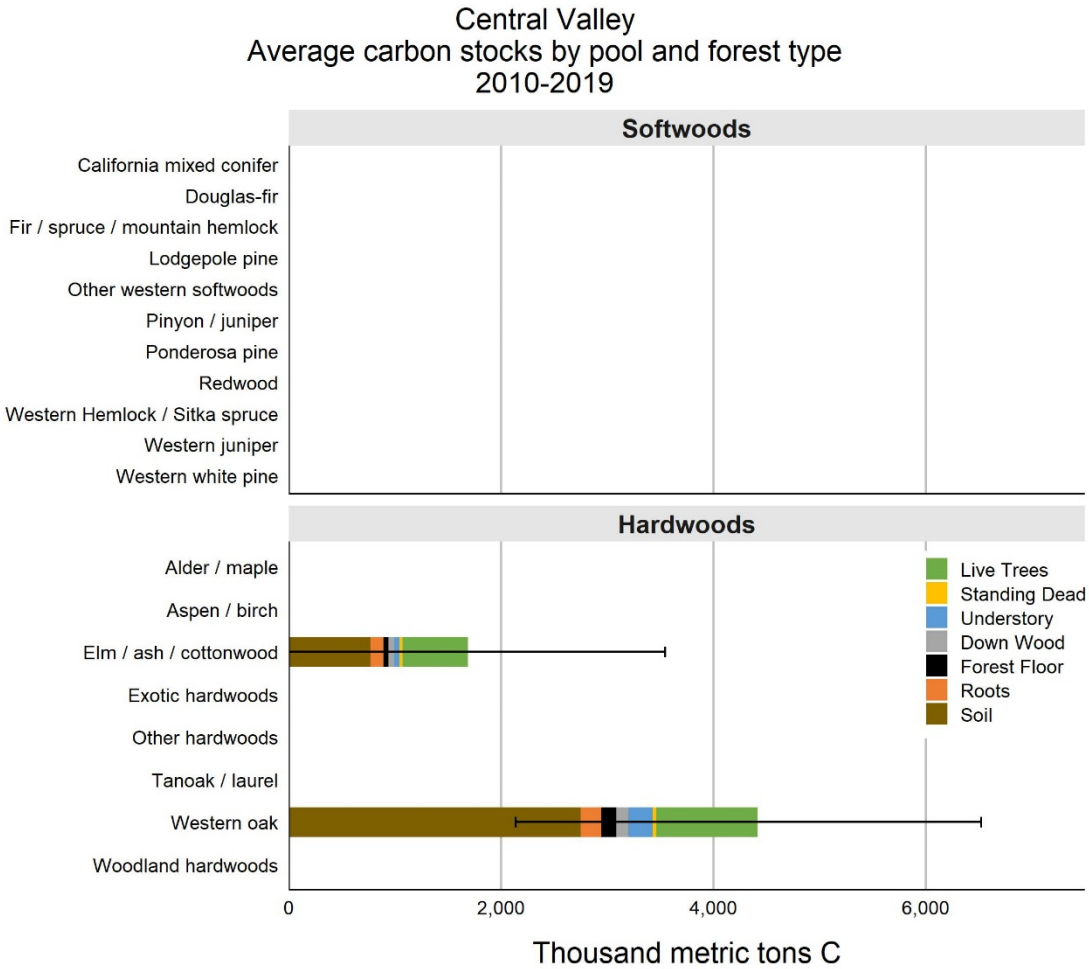


Figure A1.2.1. Central Valley: Average carbon stock by pool and forest type, 2010-2019 (thousand metric tons C). Error bars represent the 95% confidence interval of total stock for each forest type. Figure derived from Table A1.2.1. **note: "non-stocked" not depicted in this figure.*

Table A 1.2.1: Forest land carbon stocks (thousand metric tons C) by forest type and pool, 2010-2019: Central Valley

	Live Trees		Dead Trees		Roots		Understory		Down wood		Forest Floor		Soil		All pools	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand metric tons C</i>																
Softwoods:																
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hardwoods:																
Alder / maple	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	616	371	28	19	123	74	52	24	51	30	48	27	770	428	1,666	958
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western oak	960	306	33	15	196	61	228	50	113	53	139	36	2,750	690	4,331	1,118
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	1,576	481	61	24	319	96	281	56	164	61	187	45	3,520	812	5,998	1,473
Nonstocked																
	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All forest types	1,576	481	61	24	319	96	281	56	164	61	187	45	3,520	812	5,998	1,473

Note: Totals may be of because of rounding

Central Valley
Average carbon stocks by land status and forest type
2010-2019

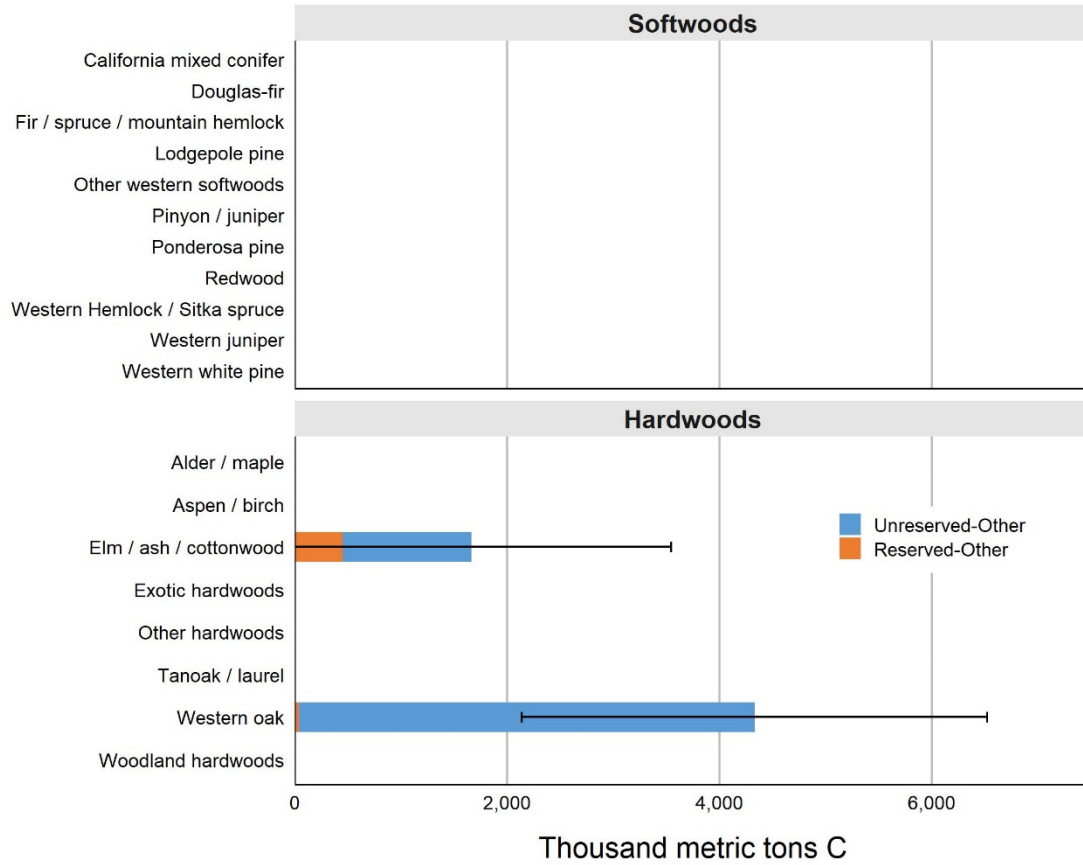


Figure A1.2.2. Central Valley: Average forest carbon stock by land status and forest type, 2010-2019 (thousand metric tons C). Error bars represent the 95% confidence interval of total stock for each forest type. Figure derived from Table A1.2.2. **note: "non-stocked" not depicted in this figure.*

Table A 1.2.2: Forest land carbon stocks (thousand metric tons C) by forest type and land status, 2010-2019: Central Valley

	Unreserved Forests:				Reserved Forests:				All forest land	
	Timberland		Other Forest		Productive		Other Forest		Total	SE
	Total	SE	Total	SE	Total	SE	Total	SE		
<i>Thousand metric tons C</i>										
Softwoods:										
California mixed conifer			--	--			--	--	--	--
Douglas-fir			--	--			--	--	--	--
Fir / spruce / mountain hemlock			--	--			--	--	--	--
Western Hemlock / Sitka spruce			--	--			--	--	--	--
Lodgepole pine			--	--			--	--	--	--
Pinyon / juniper			--	--			--	--	--	--
Ponderosa pine			--	--			--	--	--	--
Redwood			--	--			--	--	--	--
Western juniper			--	--			--	--	--	--
Western white pine			--	--			--	--	--	--
Other western softwoods			--	--			--	--	--	--
Total			--	--			--	--	--	--
Hardwoods:										
Alder / maple			--	--			--	--	--	--
Aspen / birch			--	--			--	--	--	--
Elm / ash / cottonwood			1,213	851			453	441	1,666	958
Tanoak / laurel			--	--			--	--	--	--
Western oak			4,292	1,117			39	38	4,331	1,118
Woodland hardwoods			--	--			--	--	--	--
Exotic hardwoods			--	--			--	--	--	--
Other hardwoods			--	--			--	--	--	--
Total			5,505	1,405			492	443	5,998	1,473
Nonstocked										
			--	--			--	--	--	--
All forest types			5,505	1,405			492	443	5,998	1,473

Note: Totals may be of because of rounding

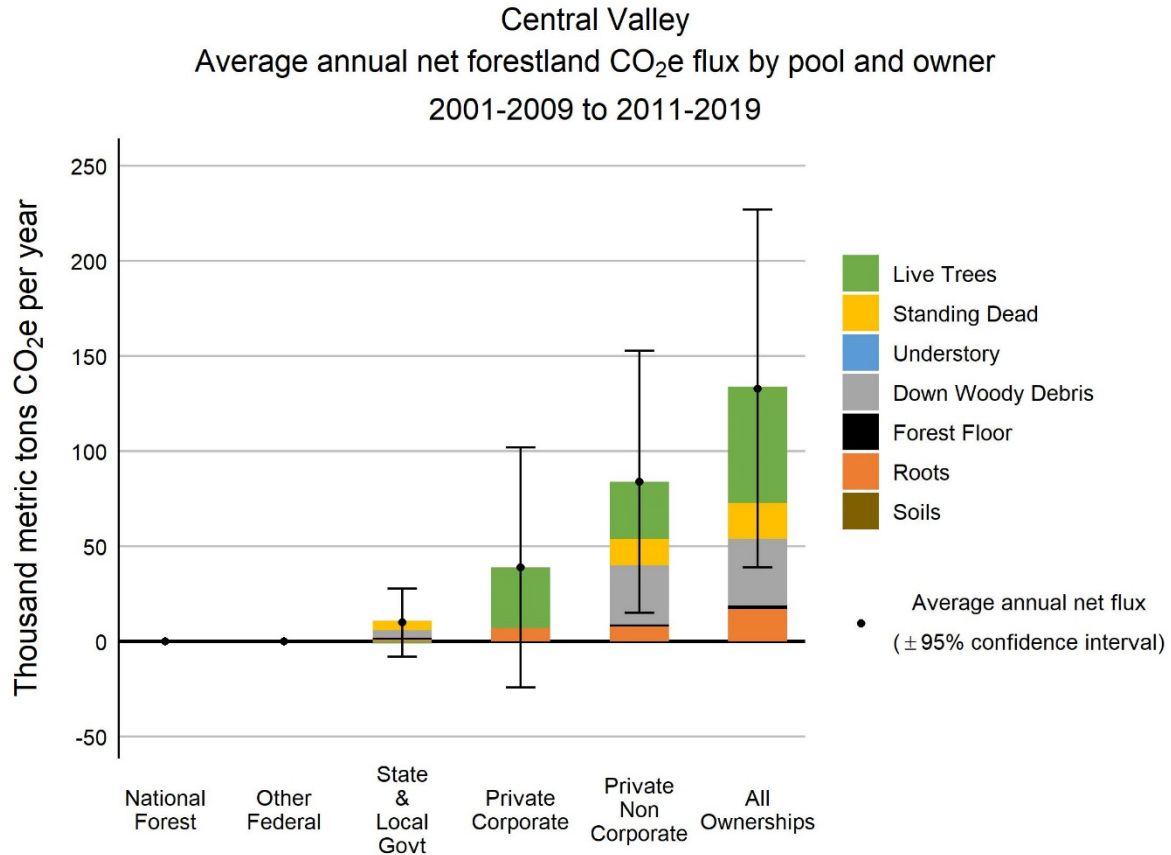


Figure A1.2.3. Central Valley average annual net forestland carbon flux by pool and ownership, 2001-2009 to 2011-2019 (MMT CO₂e/yr). Estimates exclude emissions from land-use changes. Roots includes belowground live and dead tree roots. Understory includes aboveground and belowground understory vegetation. Error bars represent the 95% confidence interval of estimated net flux. Figure derived from Appendix 2, Table B3.

**Note: this is a new figure that was not included in previous reports.*

A1.3 Eastside

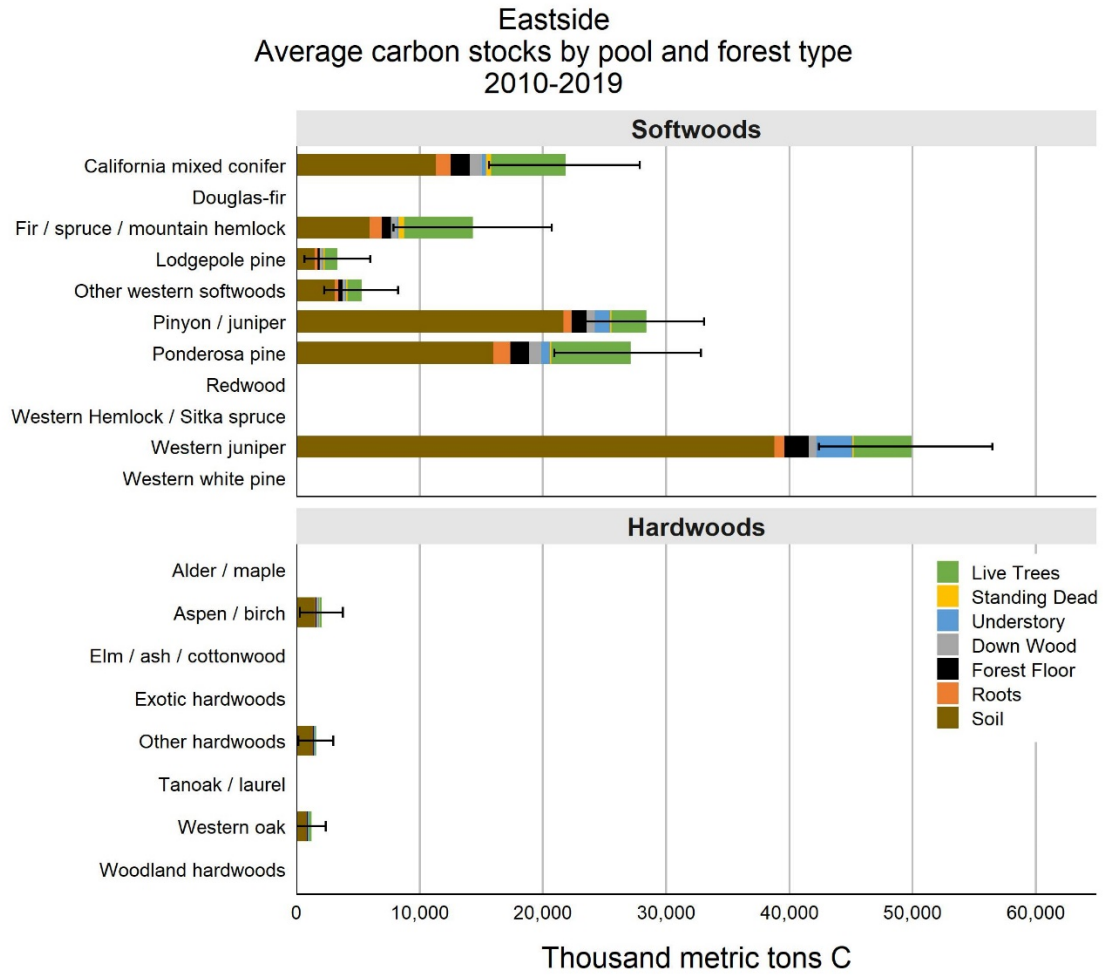


Figure A1.3.1. Eastside: Average carbon stock by pool and forest type, 2010-2019 (thousand metric tons C). Error bars represent the 95% confidence interval of total stock for each forest type. Figure derived from Table A1.3.1. **note: "non-stocked" not depicted in this figure.*

Table A 1.3.1: Forest land carbon stocks (thousand metric tons C) by forest type and pool, 2010-2019: Eastside

	Live Trees		Dead Trees		Roots		Understory		Down wood		Forest Floor		Soil		All pools	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand metric tons C</i>																
Softwoods:																
California mixed conifer	6,056	923	403	95	1,216	186	304	45	1,016	192	1,525	223	11,327	1,612	21,758	3,114
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	5,578	1,456	467	133	986	254	121	26	493	134	726	161	5,954	1,282	14,296	3,277
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	1,027	434	128	109	243	110	52	25	245	112	176	72	1,476	594	3,318	1,363
Pinyon / juniper	2,803	320	141	27	623	70	1,233	104	661	103	1,234	120	21,689	1,888	28,253	2,459
Ponderosa pine	6,419	841	137	45	1,402	185	705	96	956	179	1,527	176	15,974	1,783	26,875	3,030
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	4,657	426	140	38	833	80	2,910	224	624	86	1,943	146	38,780	2,836	49,425	3,594
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	1,136	394	112	45	281	99	109	40	186	64	327	95	3,141	872	5,254	1,524
Total	27,676	1,894	1,527	205	5,584	370	5,434	271	4,181	328	7,458	353	98,342	4,082	149,179	6,500
Hardwoods:																
Alder / maple	--	--	--	--	--	--	17	15	--	--	--	--	2	2	2	2
Aspen / birch	183	108	36	30	43	25	87	32	112	66	91	40	1,527	665	2,047	890
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western oak	209	112	12	8	50	26	78	33	52	27	50	24	794	423	1,200	607
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	80	55	18	15	17	12	64	27	57	33	80	36	1,290	584	1,589	730
Total	472	164	66	34	109	38	246	55	221	79	221	59	3,613	976	4,838	1,296
Nonstocked	80	38	323	139	83	30	442	70	272	65	472	84	7,590	1,332	9,141	1,609
All forest types	28,228	1,907	1,915	250	5,777	375	6,122	288	4,674	342	8,151	365	109,545	4,338	163,159	6,747

Note: Totals may be of because of rounding

Eastside
Average carbon stocks by land status and forest type
2010-2019

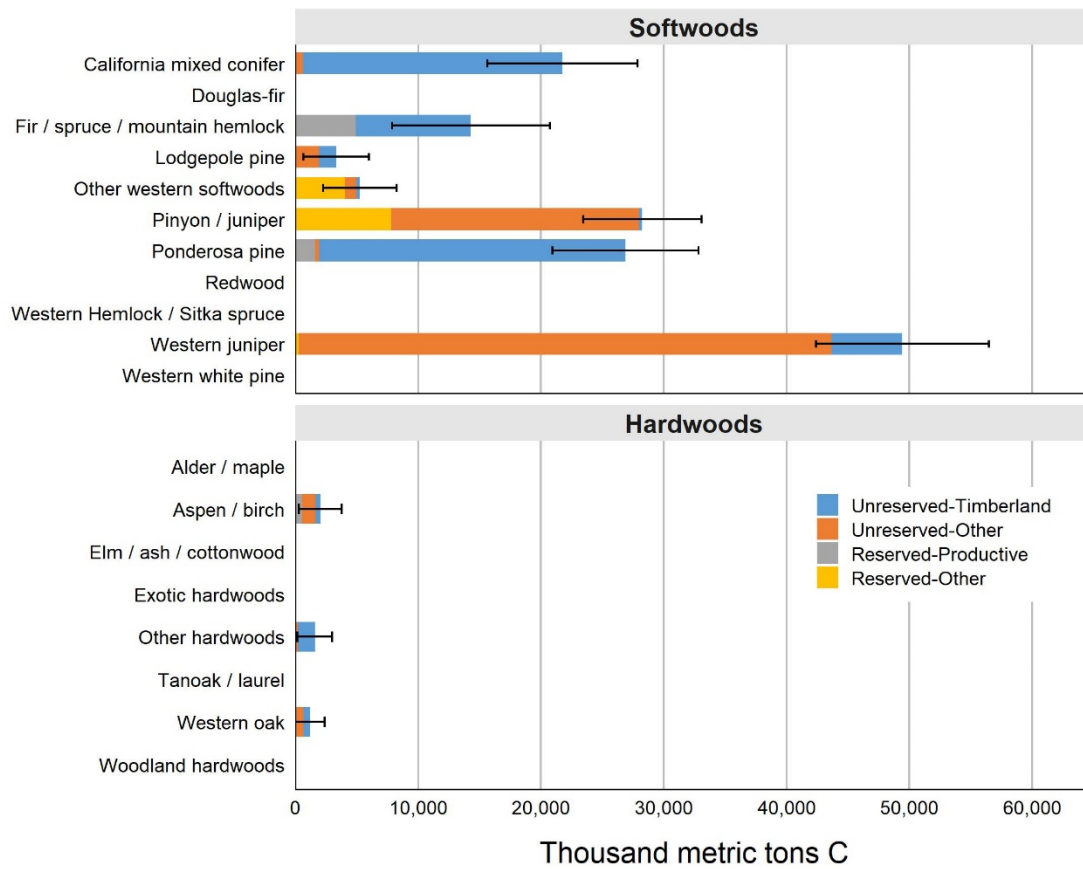


Figure A1.3.2. Eastside: Average forest carbon stock by land status and forest type, 2010-2019 (thousand metric tons C). Error bars represent the 95% confidence interval of total stock for each forest type. Figure derived from Table A1.3.2. **note: "non-stocked" not depicted in this figure.*

Table A 1.3.2: Forest land carbon stocks (thousand metric tons C) by forest type and land status, 2010-2019: Eastside

	Unreserved Forests:				Reserved Forests:				All forest land	
	Timberland		Other Forest		Productive		Other Forest		Total	SE
	Total	SE	Total	SE	Total	SE	Total	SE		
	<i>Thousand metric tons C</i>									
Softwoods:										
California mixed conifer	21,137	3,079	622	574	--	--	--	--	21,758	3,114
Douglas-fir	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	9,376	2,396	--	--	4,920	2,235	--	--	14,296	3,277
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	1,365	777	1,953	1,137	--	--	--	--	3,318	1,363
Pinyon / juniper	279	288	20,168	2,029	--	--	7,806	1,455	28,253	2,459
Ponderosa pine	24,924	2,932	362	260	1,588	855	--	--	26,875	3,030
Redwood	--	--	--	--	--	--	--	--	--	--
Western juniper	5,773	1,345	43,374	3,415	--	--	278	300	49,425	3,594
Western white pine	--	--	--	--	--	--	--	--	--	--
Other western softwoods	280	293	930	612	--	--	4,044	1,364	5,254	1,524
Total	63,133	4,407	67,409	4,117	6,508	2,375	12,129	2,005	149,179	6,500
Hardwoods:										
Alder / maple	--	--	--	--	--	--	2	2	2	2
Aspen / birch	387	413	1,132	624	521	482	6	6	2,047	890
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--
Western oak	522	323	678	475	--	--	--	--	1,200	607
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--
Other hardwoods	1,378	700	212	205	--	--	--	--	1,589	730
Total	2,287	871	2,022	807	521	482	9	7	4,838	1,296
Nonstocked	6,063	1,320	2,901	909	--	--	178	190	9,141	1,609
All forest types	71,483	4,668	72,331	4,258	7,029	2,420	12,315	2,023	163,159	6,747

Note: Totals may be of because of rounding

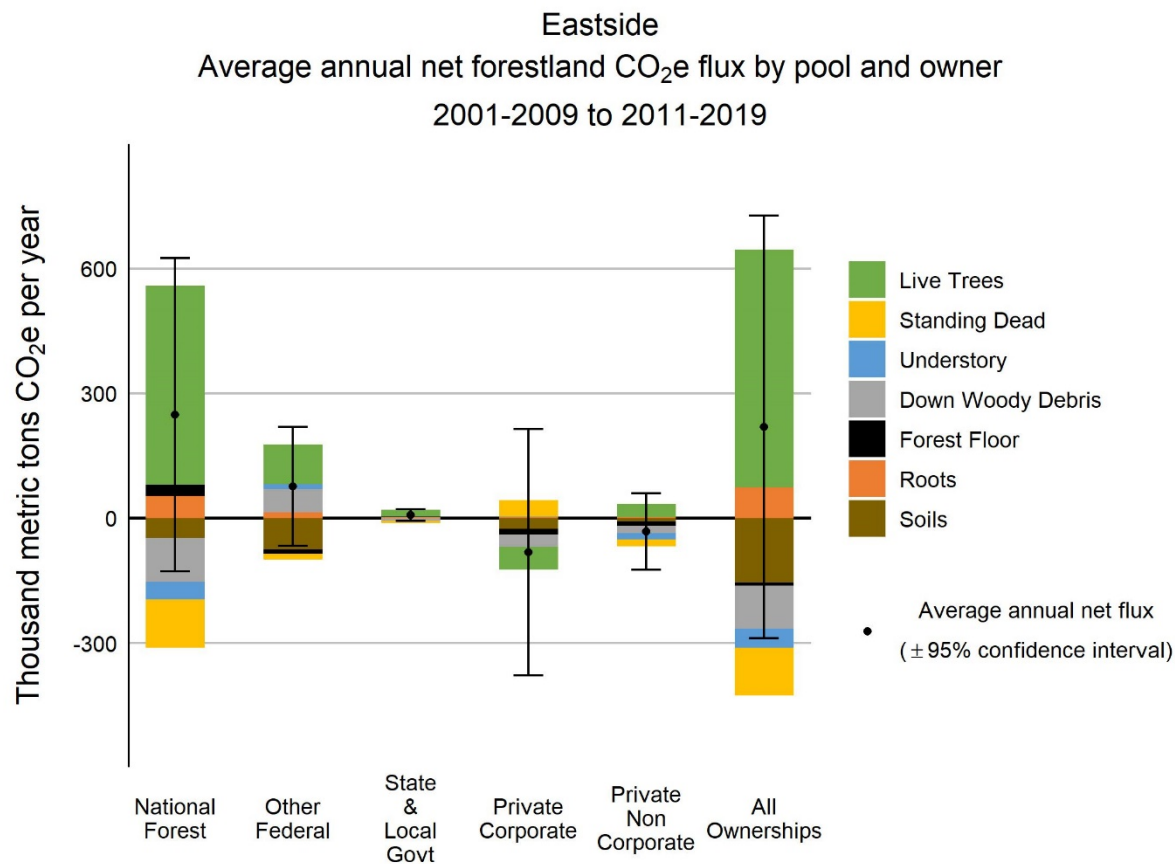


Figure A1.3.3. Eastside average annual net forestland carbon flux by pool and ownership, 2001-2009 to 2011-2019 (MMT CO₂e/yr). Estimates exclude emissions from land-use changes. Roots includes belowground live and dead tree roots. Understory includes aboveground and belowground understory vegetation. Error bars represent the 95% confidence interval of estimated net flux. Figure derived from Appendix 2, Table B4.

**Note: this is a new figure that was not included in previous reports.*

A1.4 Klamath/Interior Coast Ranges

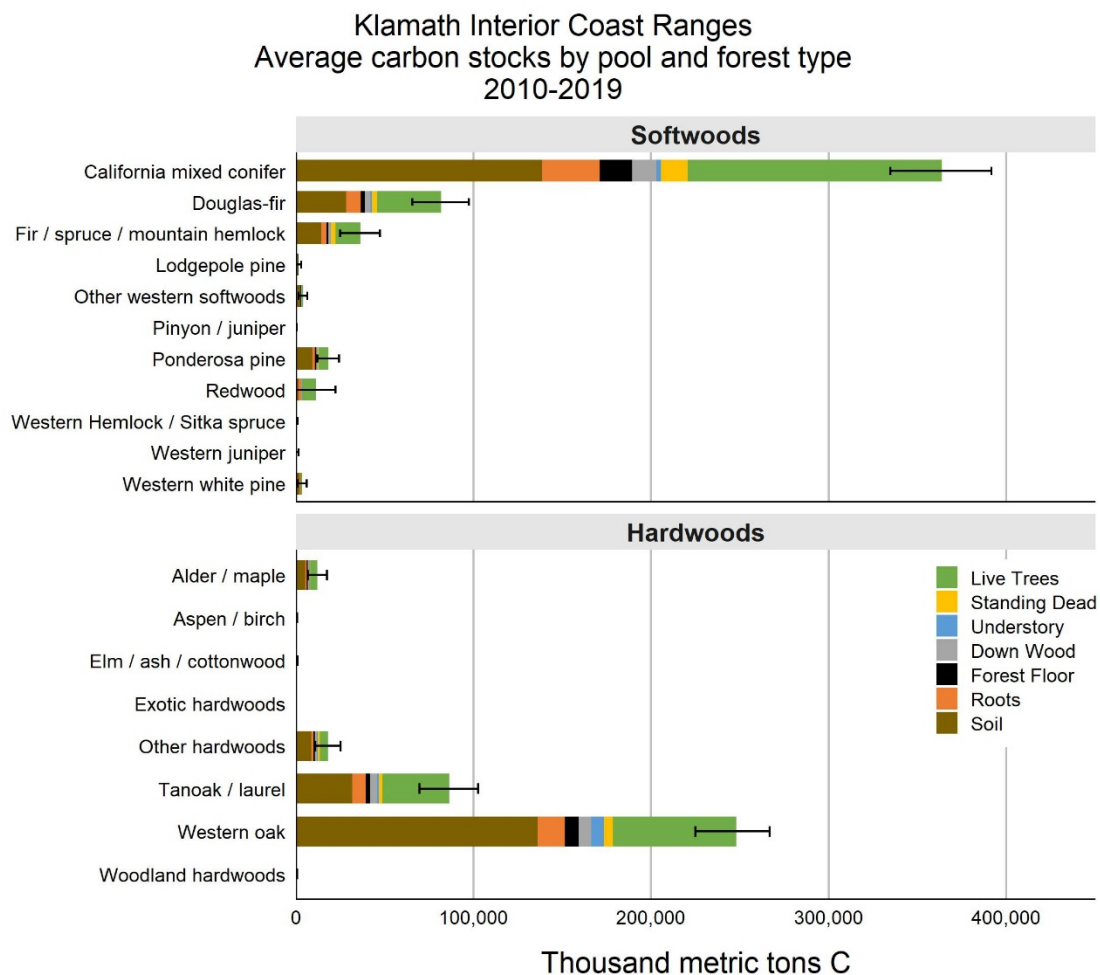


Figure A1.4.1. Klamath/Interior Coast Ranges: Average carbon stock by pool and forest type, 2010-2019 (thousand metric tons C). Error bars represent the 95% confidence interval of total stock for each forest type. Figure derived from Table A1.4.1. **note: "non-stocked" not depicted in this figure.*

Table A 1.4.1: Forest land carbon stocks (thousand metric tons C) by forest type and pool, 2010-2019: Klamath Interior Coast Ranges

	Live Trees		Dead Trees		Roots		Understory		Down wood		Forest Floor		Soil		All pools	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand metric tons C</i>																
Softwoods:																
California mixed conifer	143,320	6,433	15,098	1,268	32,461	1,463	2,398	127	13,857	775	17,997	707	138,735	5,426	363,275	14,504
Douglas-fir	36,247	3,908	2,793	451	8,201	892	975	99	3,147	511	2,313	223	28,183	2,714	81,513	8,115
Fir / spruce / mountain hemlock	13,887	2,567	2,416	568	2,819	513	307	49	1,098	234	1,375	205	14,201	2,122	36,028	5,740
Western Hemlock / Sitka spruce	123	122	--	--	25	24	14	14	3	3	23	23	94	93	269	267
Lodgepole pine	217	148	10	8	38	26	35	19	30	18	65	35	973	529	1,361	754
Pinyon / juniper	5	6	--	--	1	1	19	21			6	6	109	122	126	141
Ponderosa pine	5,592	1,127	382	154	1,287	261	425	66	432	100	967	160	9,299	1,486	18,144	3,085
Redwood	7,640	3,989	173	89	1,380	717	50	23	347	188	126	57	1,433	648	11,134	5,613
Western juniper	20	16	5	5	5	3	66	35	1	1	37	23	600	368	706	433
Western white pine	675	300	116	58	138	63	83	33	89	45	188	68	2,190	779	3,462	1,254
Other western softwoods	514	215	89	54	110	42	147	53	202	85	193	62	2,722	865	3,940	1,252
Total	208,241	8,238	21,082	1,416	46,466	1,780	4,519	195	19,205	944	23,289	727	198,538	6,055	519,958	16,868
Hardwoods:																
Alder / maple	4,012	1,101	416	180	923	240	296	61	873	253	421	94	5,171	1,148	12,002	2,761
Aspen / birch	7	10	--	--	1	2	6	9	1	2	8	12	138	206	159	237
Elm / ash / cottonwood	113	86	2	2	16	13	36	21	17	13	11	8	201	141	369	265
Tanoak / laurel	37,354	4,165	2,041	318	7,766	872	1,301	117	3,789	507	2,357	219	31,583	2,883	85,934	8,409
Western oak	69,466	3,880	5,064	693	15,292	848	7,163	280	6,936	537	7,863	338	136,073	5,496	245,894	10,660
Woodland hardwoods	73	43	--	--	10	7	68	29	4	2	14	7	225	105	335	160
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	4,478	1,258	1,309	591	1,248	334	400	68	1,361	443	678	130	8,562	1,605	17,931	3,651
Total	115,503	5,688	8,831	973	25,257	1,230	9,271	314	12,981	888	11,352	416	181,953	6,309	362,625	13,738
Nonstocked	469	219	3,711	984	920	236	566	82	847	209	678	108	9,997	1,579	17,020	2,893
All forest types	324,212	8,568	33,625	1,889	72,643	1,837	14,356	360	33,033	1,213	35,319	718	390,488	7,351	899,603	17,855

Note: Totals may be of because of rounding

Klamath Interior Coast Ranges
Average carbon stocks by land status and forest type
2010-2019

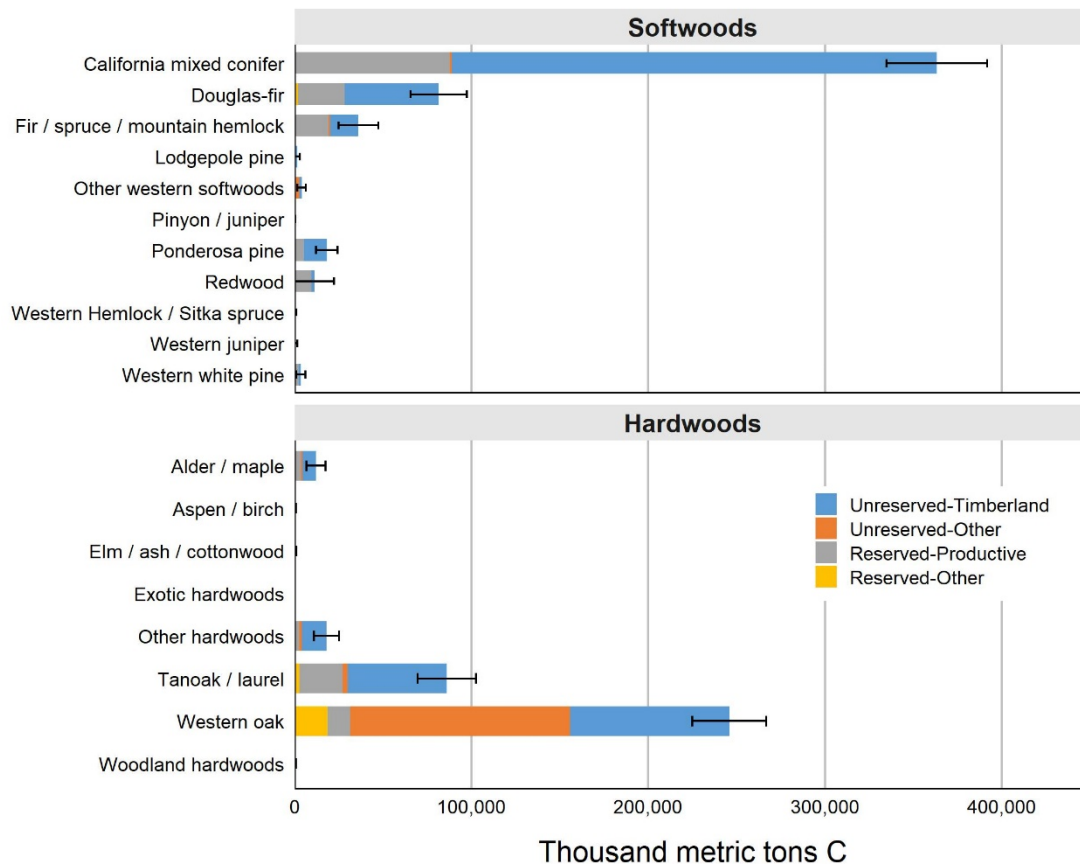


Figure A1.4.2. Klamath/Interior Coast Ranges: Average forest carbon stock by land status and forest type, 2010-2019 (thousand metric tons C). Error bars represent the 95% confidence interval of total stock for each forest type. Figure derived from Table A1.4.2. **note: “non-stocked” not depicted in this figure.*

Table A 1.4.2: Forest land carbon stocks (thousand metric tons C) by forest type and land status, 2010-2019: Klamath Interior Coast Ranges

	Unreserved Forests:				Reserved Forests:				All forest land	
	Timberland		Other Forest		Productive		Other Forest		Total	SE
	Total	SE	Total	SE	Total	SE	Total	SE		
	<i>Thousand metric tons C</i>									
Softwoods:										
California mixed conifer	274,451	12,708	1,208	784	87,332	7,508	284	357	363,275	14,504
Douglas-fir	53,241	6,587	--	--	26,439	5,097	1,833	944	81,513	8,115
Fir / spruce / mountain hemlock	15,932	3,662	861	670	19,045	4,377	190	284	36,028	5,740
Western Hemlock / Sitka spruce	--	--	--	--	269	267	--	--	269	267
Lodgepole pine	659	516	--	--	306	354	396	420	1,361	754
Pinyon / juniper	--	--	126	141	--	--	--	--	126	141
Ponderosa pine	13,069	2,529	--	--	4,523	1,724	552	481	18,144	3,085
Redwood	1,795	1,478	--	--	9,339	5,414	--	--	11,134	5,613
Western juniper	--	--	706	433	--	--	--	--	706	433
Western white pine	1,075	779	--	--	2,013	917	375	398	3,462	1,254
Other western softwoods	1,214	722	2,218	944	221	253	287	324	3,940	1,252
Total	361,436	14,009	5,119	1,470	149,486	10,519	3,917	1,345	519,958	16,868
Hardwoods:										
Alder / maple	7,785	2,128	766	489	2,909	1,620	542	481	12,002	2,761
Aspen / birch	--	--	--	--	--	--	159	237	159	237
Elm / ash / cottonwood	--	--	342	264	26	25	--	--	369	265
Tanoak / laurel	56,130	6,972	2,590	1,215	24,569	4,691	2,646	1,257	85,934	8,409
Western oak	90,168	7,540	124,276	6,962	12,973	2,810	18,478	3,045	245,894	10,660
Woodland hardwoods	--	--	169	99	--	--	165	126	335	160
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--
Other hardwoods	13,935	3,399	1,321	707	2,249	1,064	426	400	17,931	3,651
Total	168,018	10,622	129,463	7,071	42,727	5,713	22,417	3,361	362,625	13,738
Nonstocked	8,667	2,113	710	410	6,985	1,892	658	473	17,020	2,893
All forest types	538,121	15,216	135,292	7,213	199,198	10,657	26,992	3,650	899,603	17,855

Note: Totals may be off because of rounding

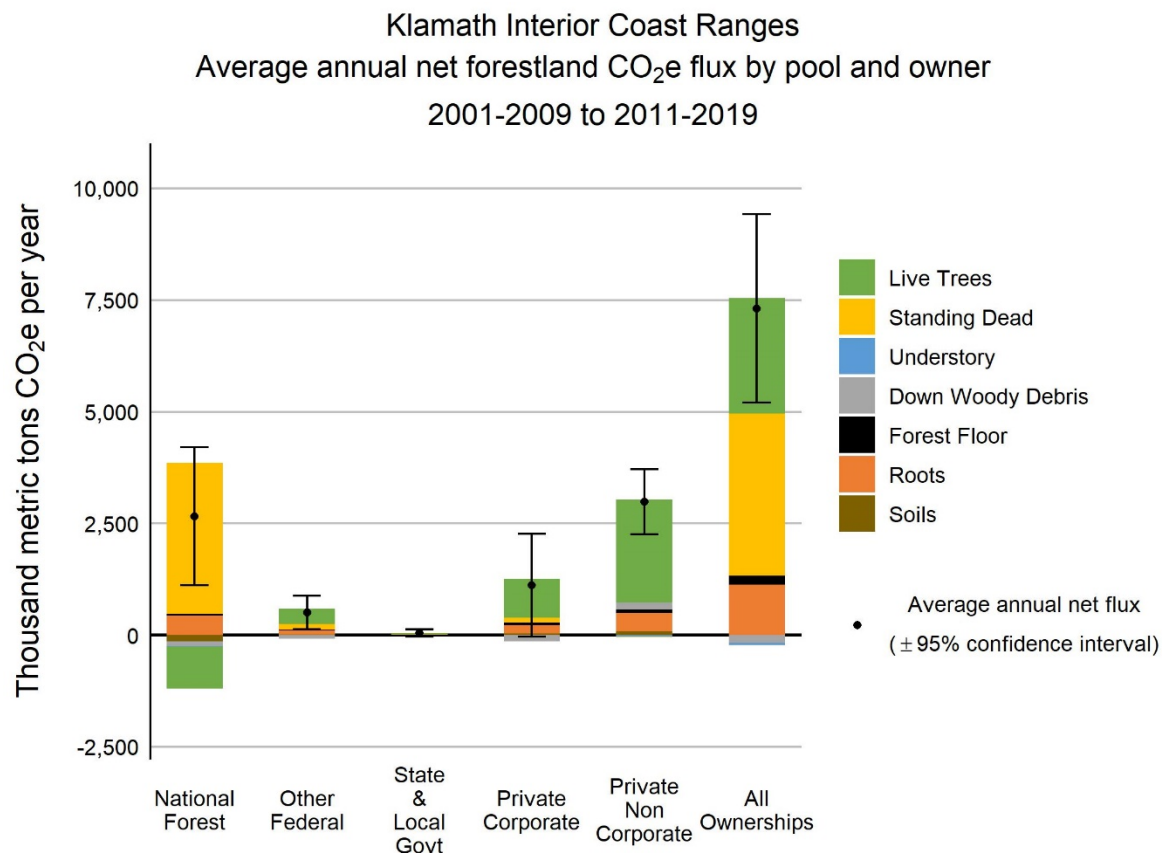


Figure A1.4.3. Klamath Interior Coast Ranges average annual net forestland carbon flux by pool and ownership, 2001-2009 to 2011-2019 (MMT CO₂e/yr). Estimates exclude emissions from land-use changes. Roots includes belowground live and dead tree roots. Understory includes aboveground and belowground understory vegetation. Error bars represent the 95% confidence interval of estimated net flux. Figure derived from Appendix 2, Table B5.

**Note: this is a new figure that was not included in previous reports.*

A1.5 North Coast

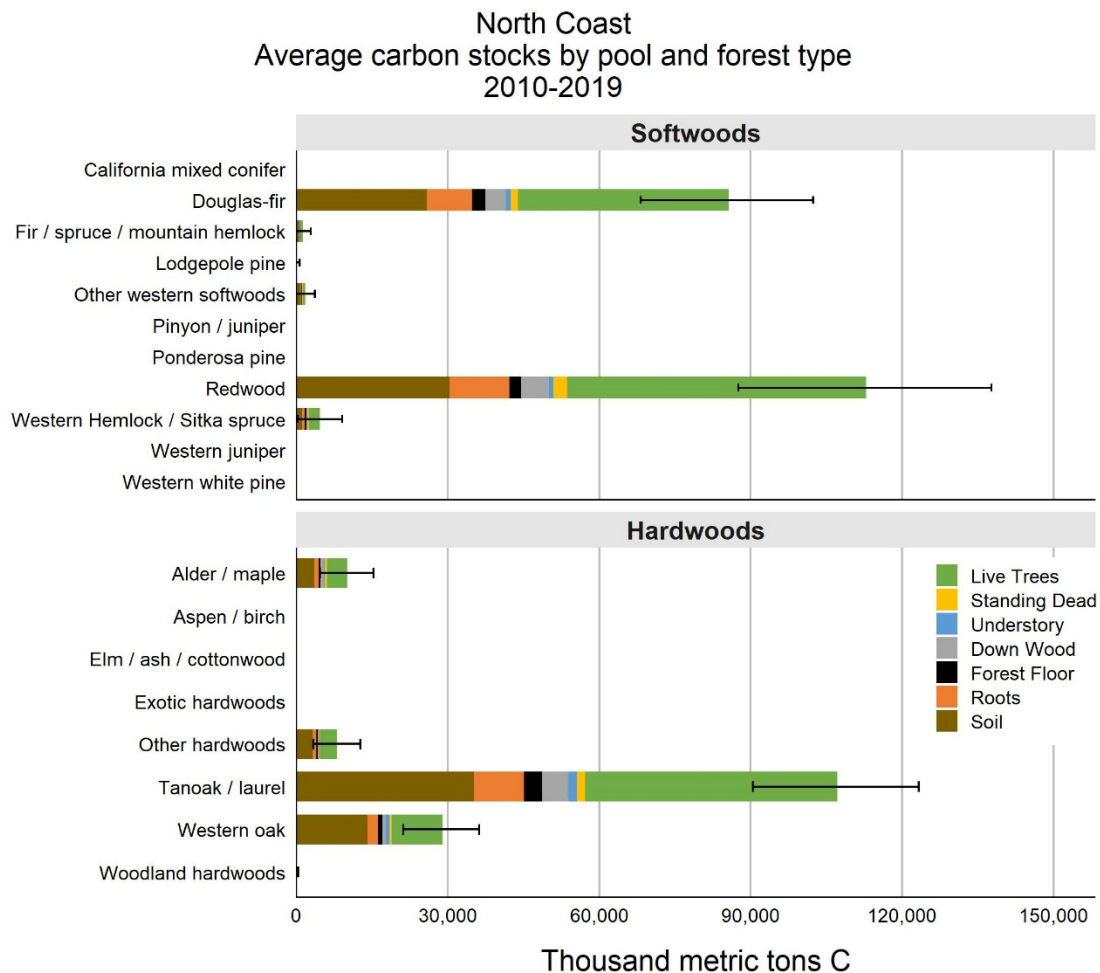


Figure A1.5.1. North Coast: Average carbon stock by pool and forest type, 2010-2019 (thousand metric tons C). Error bars represent the 95% confidence interval of total stock for each forest type. Figure derived from Table A1.5.1. **note: "non-stocked" not depicted in this figure.*

Table A 1.5.1: Forest land carbon stocks (thousand metric tons C) by forest type and pool, 2010-2019: North Coast

	Live Trees		Dead Trees		Roots		Understory		Down wood		Forest Floor		Soil		All pools	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand metric tons C</i>																
Softwoods:																
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	41,661	4,764	1,414	225	8,951	1,025	1,024	97	4,108	562	2,543	239	25,920	2,421	85,311	8,718
Fir / spruce / mountain hemlock	513	324	38	38	106	68	16	9	21	14	70	46	559	351	1,316	833
Western Hemlock / Sitka spruce	2,177	1,013	222	165	545	268	47	19	309	234	226	107	1,200	571	4,707	2,238
Lodgepole pine	27	28	8	8	7	8	20	15	2	2	18	17	179	161	247	227
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwood	59,185	8,170	2,768	508	11,826	1,572	873	84	5,459	793	2,365	218	30,387	2,801	112,634	12,779
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	506	370	31	27	127	94	53	28	100	100	71	38	895	479	1,763	1,009
Total	104,069	9,137	4,482	572	21,563	1,815	2,033	130	9,998	969	5,294	319	59,140	3,514	205,978	14,805
Hardwoods:																
Alder / maple	3,961	1,188	407	160	887	258	211	47	724	266	288	74	3,640	908	10,050	2,703
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	49,904	4,239	1,608	224	9,919	842	1,731	132	5,203	597	3,536	269	35,267	2,703	106,882	8,368
Western oak	10,125	1,517	346	87	2,059	314	828	99	629	136	878	116	14,169	1,837	28,757	3,838
Woodland hardwoods	67	73			14	16	9	10	5	5	3	3	48	52	139	151
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	3,422	1,079	58	29	719	226	149	40	166	62	308	92	3,280	940	8,068	2,371
Total	67,479	4,668	2,420	287	13,599	938	2,927	174	6,727	662	5,013	306	56,404	3,419	153,897	9,603
Nonstocked	39	27	3	3	9	6	38	22	30	24	45	26	570	338	725	423
All forest types	171,587	9,415	6,905	623	35,171	1,869	4,999	211	16,755	1,109	10,352	380	116,114	4,301	360,600	15,660

Note: Totals may be of because of rounding

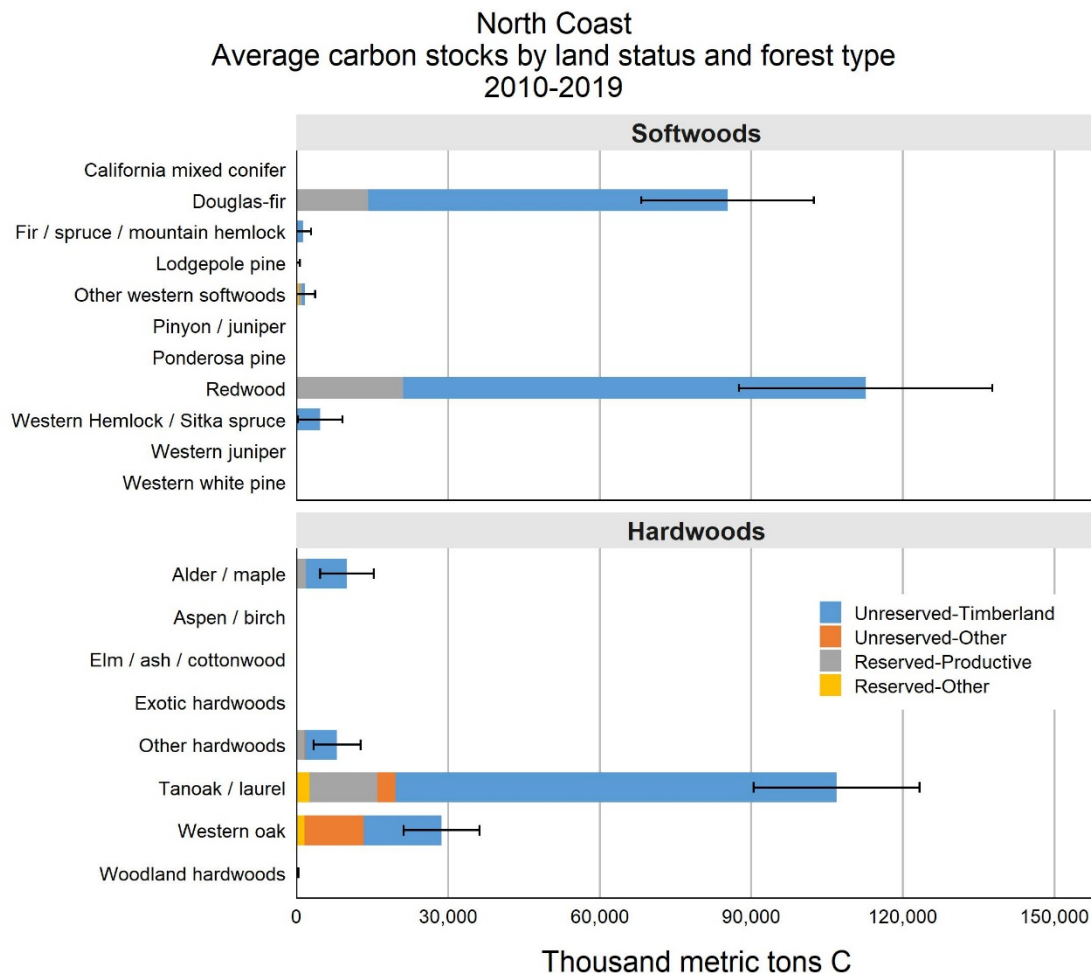


Figure A1.5.2. North Coast: Average forest carbon stock by land status and forest type, 2010-2019 (thousand metric tons C). Error bars represent the 95% confidence interval of total stock for each forest type. Figure derived from Table A1.5.2. **note: "non-stocked" not depicted in this figure.*

Table A 1.5.2: Forest land carbon stocks (thousand metric tons C) by forest type and land status, 2010-2019: North Coast

	Unreserved Forests:				Reserved Forests:				All forest land	
	Timberland		Other Forest		Productive		Other Forest		Total	SE
	Total	SE	Total	SE	Total	SE	Total	SE		
	<i>Thousand metric tons C</i>									
Softwoods:										
California mixed conifer	--	--	--	--	--	--	--	--	--	--
Douglas-fir	71,089	7,620	--	--	14,222	4,467	--	--	85,311	8,718
Fir / spruce / mountain hemlock	1,316	833	--	--	--	--	--	--	1,316	833
Western Hemlock / Sitka spruce	4,707	2,238	--	--	--	--	--	--	4,707	2,238
Lodgepole pine	--	--	--	--	219	225	28	30	247	227
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	--	--	--	--	--	--	--	--	--	--
Redwood	91,462	9,283	--	--	21,172	9,050	--	--	112,634	12,779
Western juniper	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--
Other western softwoods	615	643	--	--	643	641	505	440	1,763	1,009
Total	169,189	11,446	--	--	36,256	9,916	533	441	205,978	14,805
Hardwoods:										
Alder / maple	8,085	2,286	48	48	1,917	1,442	--	--	10,050	2,703
Aspen / birch	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	87,301	7,468	3,560	1,552	13,375	3,324	2,645	1,718	106,882	8,368
Western oak	15,402	3,095	11,776	2,104	--	--	1,580	853	28,757	3,838
Woodland hardwoods	--	--	--	--	--	--	139	151	139	151
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--
Other hardwoods	6,355	2,067	149	152	1,564	1,158	--	--	8,068	2,371
Total	117,144	8,430	15,533	2,624	16,857	3,675	4,364	1,924	153,897	9,603
Nonstocked	725	423	--	--	--	--	--	--	725	423
All forest types	287,058	12,509	15,533	2,624	53,113	10,036	4,897	1,974	360,600	15,660

Note: Totals may be of because of rounding

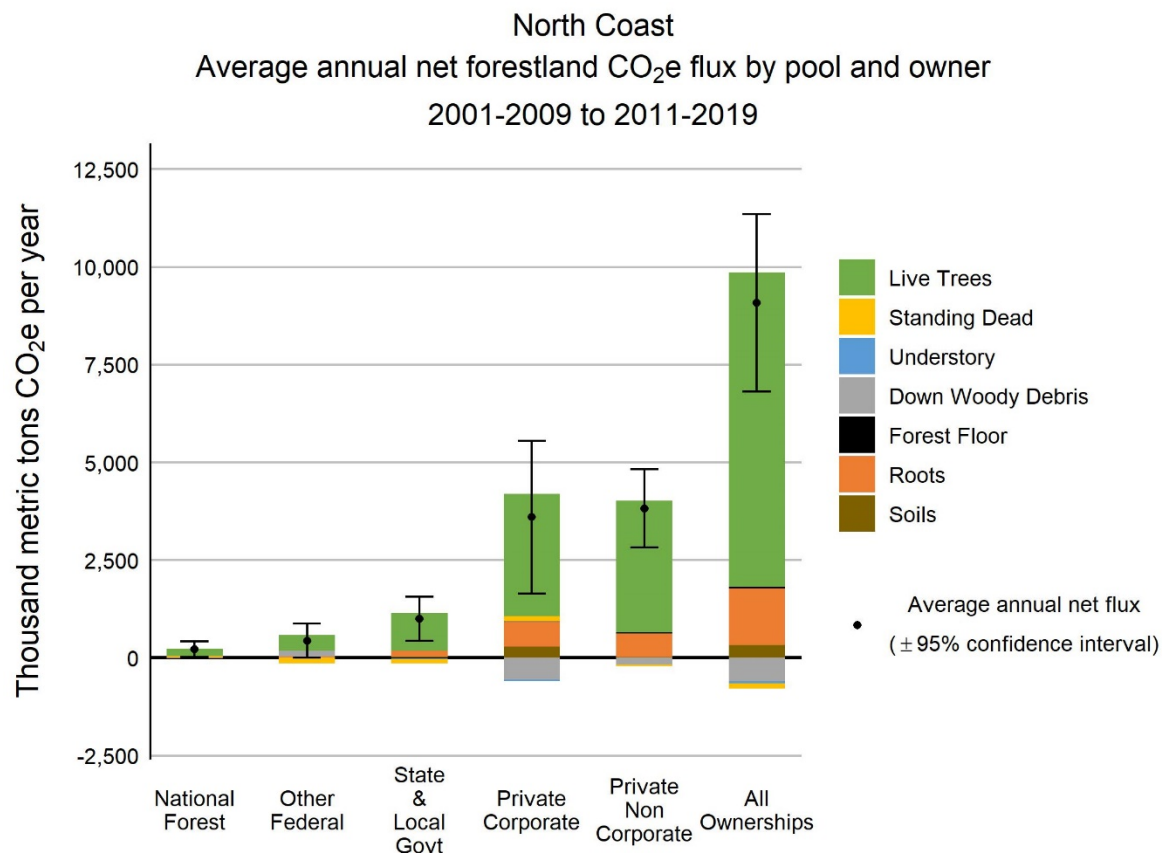


Figure A1.5.3. North Coast annual net forestland carbon flux by pool and ownership, 2001-2009 to 2011-2019 (MMT CO₂e/yr). Estimates exclude emissions from land-use changes. Roots includes belowground live and dead tree roots. Understory includes aboveground and belowground understory vegetation. Error bars represent the 95% confidence interval of estimated net flux. Figure derived from Appendix 2, Table B6.

**Note: this is a new figure that was not included in previous reports.*

A1.6 Sierra/Cascades

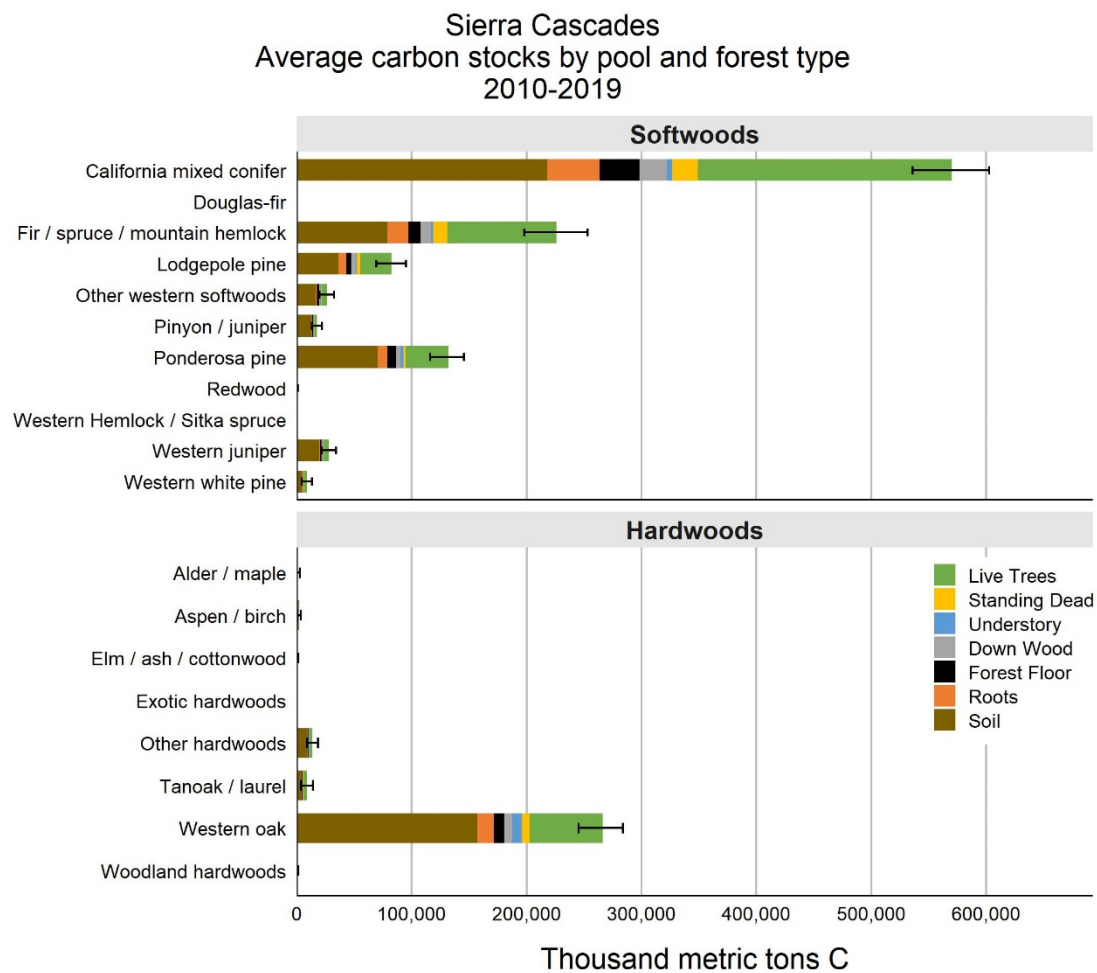


Figure A1.6.1. Sierra/Cascades: Average carbon stock by pool and forest type, 2010-2019 (thousand metric tons C). Error bars represent the 95% confidence interval of total stock for each forest type. Figure derived from Table A1.6.1. **note: "non-stocked" not depicted in this figure.*

Table A 1.6.1: Forest land carbon stocks (thousand metric tons C) by forest type and pool, 2010-2019: Sierra Cascades

	Live Trees		Dead Trees		Roots		Understory		Down wood		Forest Floor		Soil		All pools	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand metric tons C</i>																
Softwoods:																
California mixed conifer	221,171	7,649	22,499	1,541	45,238	1,556	4,467	206	24,033	1,139	34,626	1,012	218,331	6,255	569,274	17,016
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	94,951	6,634	12,368	1,246	18,627	1,306	1,579	98	9,399	817	10,328	606	78,686	4,584	225,639	14,033
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	27,270	2,470	3,123	399	6,350	573	830	85	3,766	536	4,572	364	36,532	2,877	82,262	6,647
Pinyon / juniper	2,001	331	258	85	474	76	768	89	713	169	712	102	12,837	1,568	17,656	2,183
Ponderosa pine	37,216	2,625	1,398	242	8,275	593	2,634	163	4,151	398	7,516	428	70,532	3,873	130,840	7,525
Redwood	32	29	--	--	6	6	12	10	46	41	12	11	170	153	271	245
Western juniper	4,301	695	221	66	805	130	1,175	150	592	123	1,334	162	19,562	2,232	27,825	3,256
Western white pine	2,545	723	340	119	579	161	129	35	338	123	541	139	4,334	1,087	8,746	2,233
Other western softwoods	4,753	820	569	148	1,100	200	709	101	846	206	1,583	199	16,693	2,026	26,118	3,287
Total	394,240	8,647	40,776	1,891	81,453	1,759	12,303	330	43,884	1,424	61,225	1,015	457,677	7,256	1,088,631	18,525
Hardwoods:																
Alder / maple	528	435	82	59	111	88	23	16	52	46	41	29	341	239	1,169	886
Aspen / birch	397	237	27	16	76	45	96	33	75	59	114	45	1,341	517	2,083	831
Elm / ash / cottonwood	97	93	1	1	15	15	42	21	9	8	20	17	306	247	461	376
Tanoak / laurel	3,272	1,225	101	51	660	238	183	46	425	202	346	93	3,927	1,029	8,883	2,599
Western oak	63,756	3,331	6,690	699	14,352	728	8,476	274	6,921	500	8,753	329	157,427	5,396	264,490	9,774
Woodland hardwoods	--	--	9	8	2	2	34	21	1	1	28	17	518	332	584	370
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	2,238	757	169	57	487	173	518	80	554	153	628	108	9,178	1,555	13,600	2,458
Total	70,288	3,636	7,078	704	15,704	785	9,372	288	8,036	563	9,930	356	173,038	5,639	291,270	10,337
Nonstocked	888	226	4,023	1,005	1,005	203	1,415	124	2,468	437	1,383	138	22,500	2,206	33,276	3,487
All forest types	465,416	8,728	51,877	2,176	98,162	1,774	23,090	430	54,389	1,532	72,537	984	653,216	8,177	1,413,176	18,861

Note: Totals may be of because of rounding

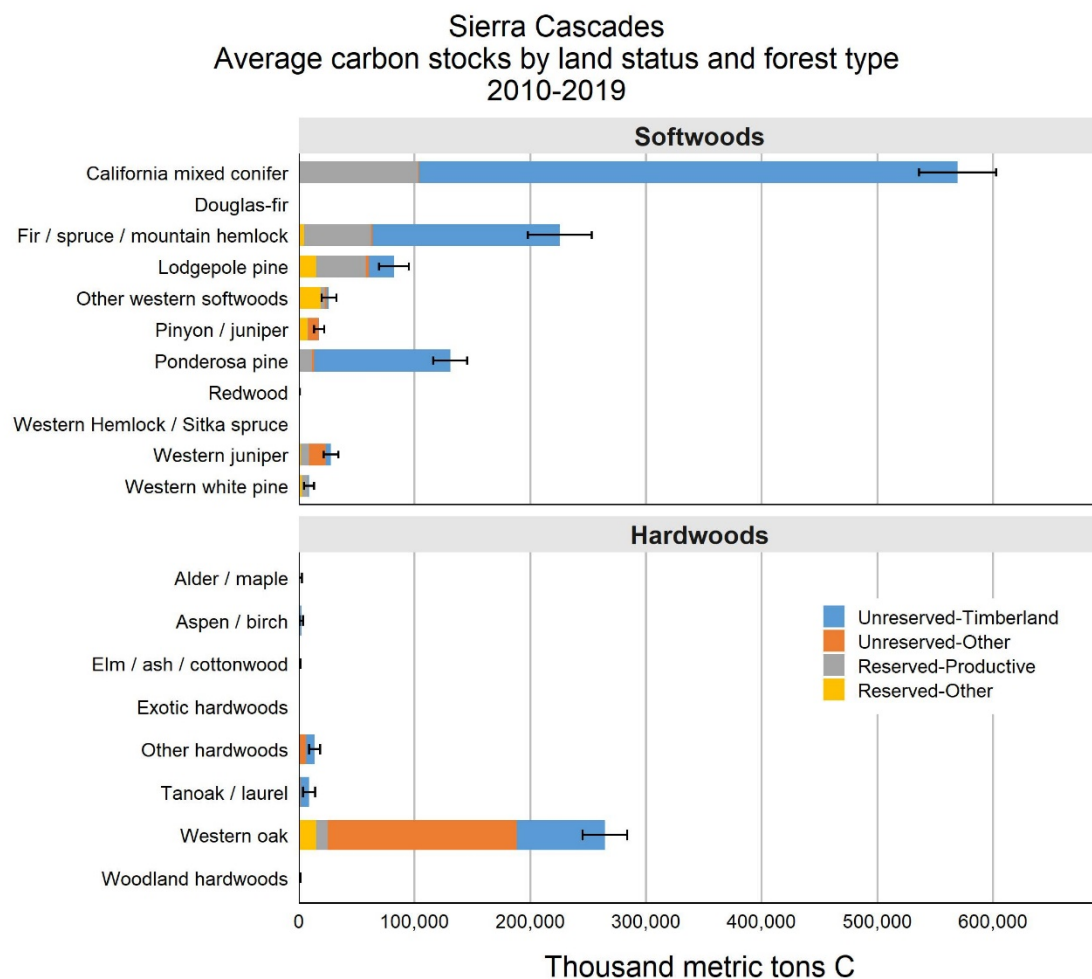


Figure A1.6.2. Sierra/Cascades: Average forest carbon stock by land status and forest type, 2010-2019 (thousand metric tons C). Error bars represent the 95% confidence interval of total stock for each forest type. Figure derived from Table A1.6.2. **note: "non-stocked" not depicted in this figure.*

Table A 1.6.2: Forest land carbon stocks (thousand metric tons C) by forest type and land status, 2010-2019: Sierra Cascades

	Unreserved Forests:				Reserved Forests:				All forest land	
	Timberland		Other Forest		Productive		Other Forest		Total	SE
	Total	SE	Total	SE	Total	SE	Total	SE		
	<i>Thousand metric tons C</i>									
Softwoods:										
California mixed conifer	465,594	14,970	738	713	102,394	8,670	548	709	569,274	17,016
Douglas-fir	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	162,065	11,448	1,341	967	57,789	7,921	4,442	1,854	225,639	14,033
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	21,965	3,542	2,615	1,179	42,776	5,081	14,905	2,804	82,262	6,647
Pinyon / juniper	393	355	9,345	1,648	307	272	7,611	1,408	17,656	2,183
Ponderosa pine	117,541	7,059	1,728	849	10,615	2,460	956	573	130,840	7,525
Redwood	271	245	--	--	--	--	--	--	271	245
Western juniper	4,651	1,312	14,424	2,139	7,065	1,949	1,685	802	27,825	3,256
Western white pine	927	625	--	--	5,168	1,818	2,652	1,158	8,746	2,233
Other western softwoods	1,975	863	1,893	813	3,286	1,326	18,965	2,843	26,118	3,287
Total	775,383	15,692	32,085	3,359	229,398	10,642	51,765	4,639	1,088,631	18,525
Hardwoods:										
Alder / maple	1,169	886	--	--	--	--	--	--	1,169	886
Aspen / birch	562	471	209	158	551	411	761	525	2,083	831
Elm / ash / cottonwood	--	--	461	376	--	--	--	--	461	376
Tanoak / laurel	7,460	2,515	1,423	653	--	--	--	--	8,883	2,599
Western oak	76,332	6,521	163,110	7,124	10,269	2,552	14,780	2,561	264,490	9,774
Woodland hardwoods	--	--	584	370	--	--	--	--	584	370
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--
Other hardwoods	7,271	1,979	5,798	1,410	--	--	531	398	13,600	2,458
Total	92,793	7,275	171,586	7,212	10,819	2,582	16,072	2,644	291,270	10,337
Nonstocked	20,982	2,682	2,419	786	7,401	1,908	2,473	924	33,276	3,487
All forest types	889,157	15,682	206,090	7,913	247,618	10,541	70,310	5,358	1,413,176	18,861

Note: Totals may be off because of rounding

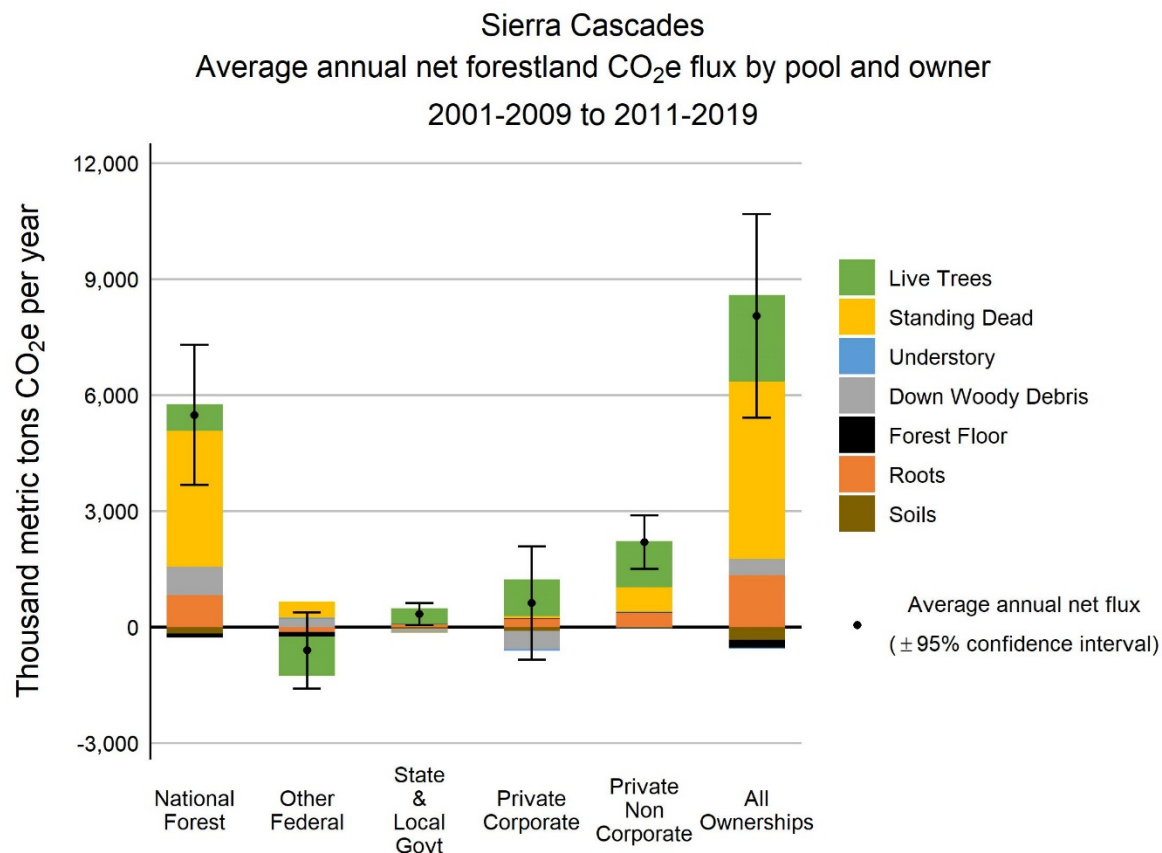


Figure A1.6.3. Sierra Cascades average annual net forestland carbon flux by pool and ownership, 2001-2009 to 2011-2019 (MMT CO₂e/yr). Estimates exclude emissions from land-use changes. Roots includes belowground live and dead tree roots. Understory includes aboveground and belowground understory vegetation. Error bars represent the 95% confidence interval of estimated net flux. Figure derived from Appendix 2, Table B7.

**Note: this is a new figure that was not included in previous reports.*

A1.7 South Coast Mountains and Deserts

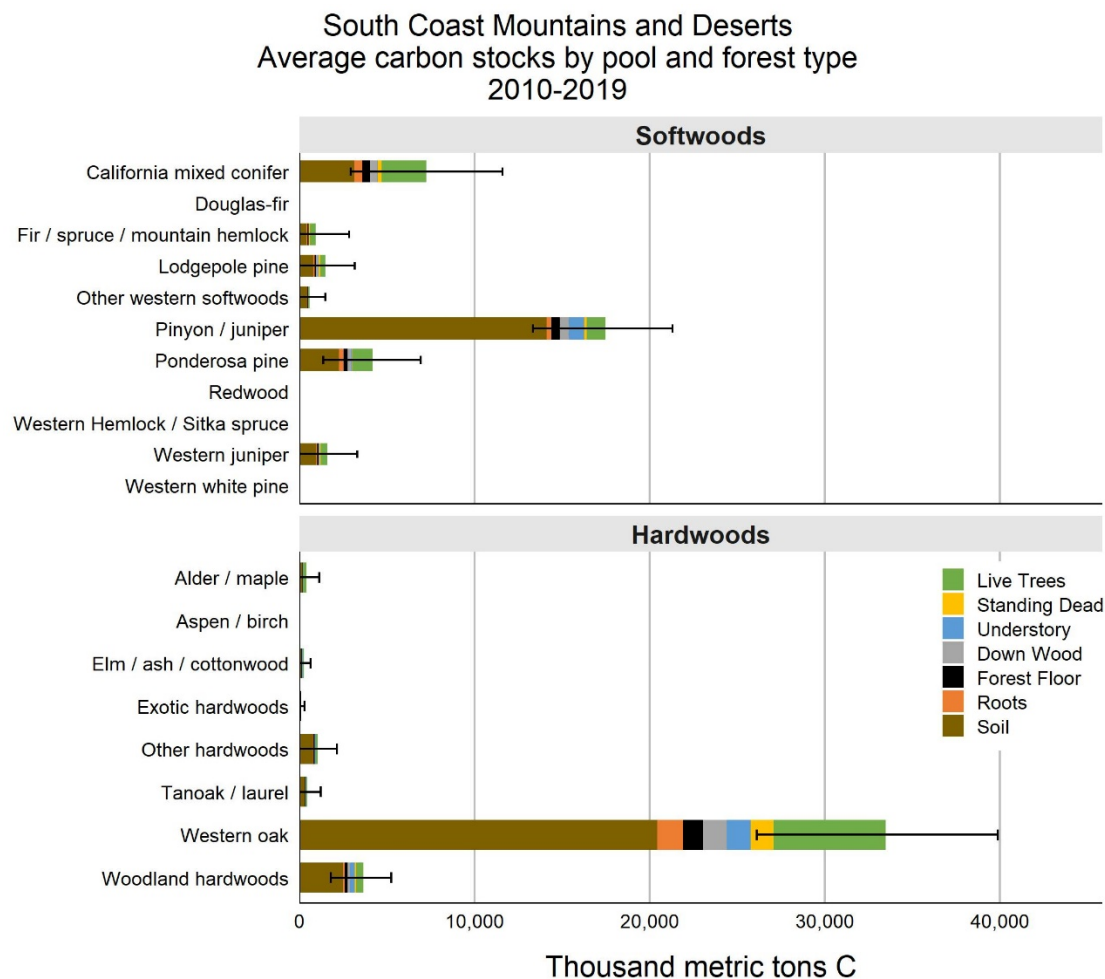


Figure A1.7.1. South Coast Mountains/Deserts: Average carbon stock by pool and forest type, 2010-2019 (thousand metric tons C). Error bars represent the 95% confidence interval of total stock for each forest type. Figure derived from Table A1.7.1. **note: "non-stocked" not depicted in this figure.*

Table A 1.7.1: Forest land carbon stocks (thousand metric tons C) by forest type and pool, 2010-2019: South Coast Mountains and Deserts

	Live Trees		Dead Trees		Roots		Understory		Down wood		Forest Floor		Soil		All pools	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>Thousand metric tons C</i>																
Softwoods:																
California mixed conifer	2,579	893	210	79	447	152	49	16	382	138	460	139	3,138	920	7,264	2,204
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	324	340	36	37	57	60	4	4	40	42	65	69	403	424	929	975
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	285	166	96	57	85	49	13	7	135	83	90	52	782	452	1,486	858
Pinyon / juniper	1,058	223	143	39	253	47	872	96	535	121	491	61	14,114	1,638	17,326	2,035
Ponderosa pine	1,131	390	20	10	257	88	57	20	218	98	217	76	2,274	798	4,158	1,422
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	381	209	47	39	77	45	21	11	45	31	71	39	957	520	1,597	876
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	78	76	--	--	9	8	20	15	11	10	25	21	453	351	589	463
Total	5,835	1,068	553	117	1,186	198	1,036	102	1,365	227	1,419	192	22,120	2,191	33,349	3,619
Hardwoods:																
Alder / maple	175	161	2	2	32	30	12	11	4	4	17	16	167	153	403	370
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	55	56	2	2	10	10	39	22	2	2	15	14	136	120	228	212
Tanoak / laurel	68	59	2	2	15	13	16	14	7	6	30	26	310	269	447	389
Western oak	6,422	992	1,295	267	1,494	214	1,377	130	1,345	238	1,132	125	20,425	2,073	33,003	3,510
Woodland hardwoods	396	138	85	38	82	25	266	59	153	69	164	43	2,499	623	3,525	879
Exotic hardwoods	3	3	--	--	1	1	11	12	7	7	4	4	76	77	95	96
Other hardwoods	123	72	1	1	28	17	49	24	9	5	47	27	798	440	1,036	567
Total	7,243	1,017	1,387	270	1,662	218	1,771	146	1,527	248	1,409	137	24,411	2,216	38,737	3,681
Nonstocked	20	11	328	205	81	48	231	52	291	107	152	38	3,857	919	4,920	1,206
All forest types	13,098	1,435	2,267	344	2,928	285	3,038	182	3,183	342	2,981	227	50,388	3,067	77,006	4,980

Note: Totals may be of because of rounding

South Coast Mountains and Deserts
Average carbon stocks by land status and forest type
2010-2019

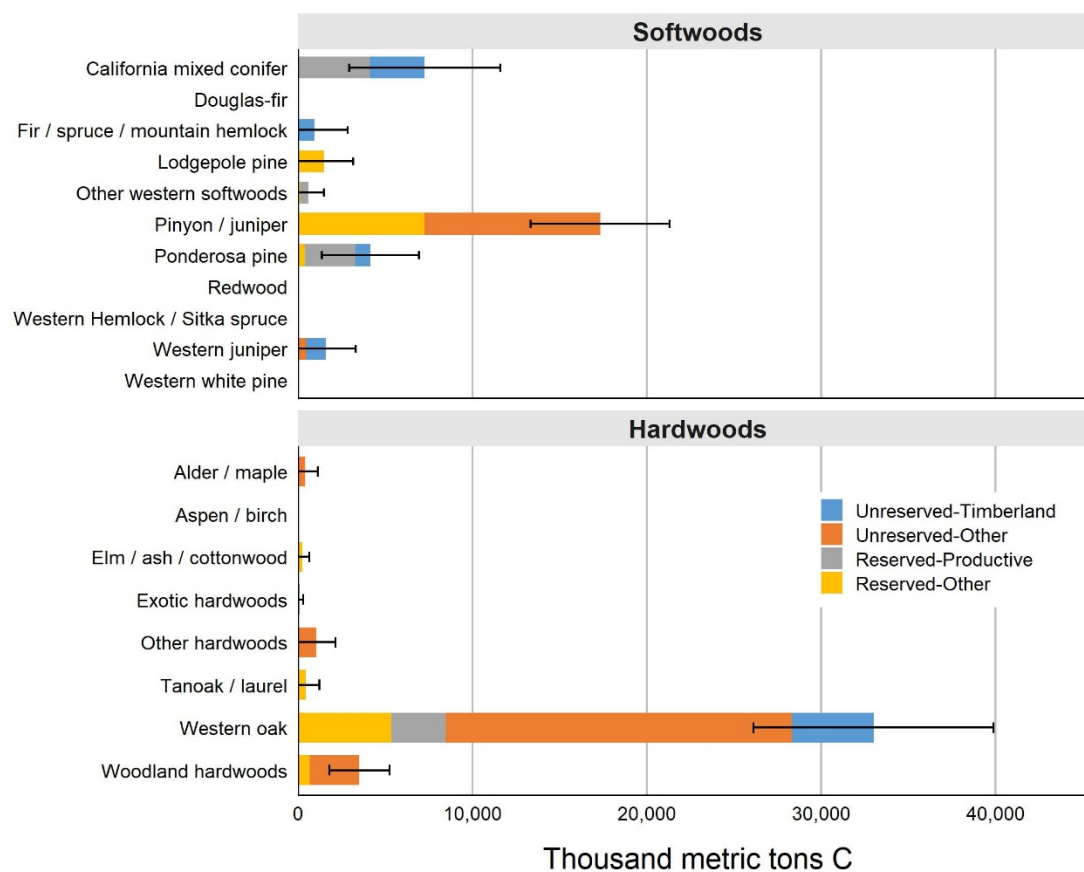


Figure A1.7.2. South Coast Mountains/Deserts: Average forest carbon stock by land status and forest type, 2010-2019 (thousand metric tons C). Error bars represent the 95% confidence interval of total stock for each forest type. Figure derived from Table A1.7.2. **note: "non-stocked" not depicted in this figure.*

Table A 1.7.2: Forest land carbon stocks (thousand metric tons C) by forest type and land status, 2010-2019: South Coast Mountains and Deserts

	Unreserved Forests:				Reserved Forests:				All forest land	
	Timberland		Other Forest		Productive		Other Forest		Total	SE
	Total	SE	Total	SE	Total	SE	Total	SE		
	<i>Thousand metric tons C</i>									
Softwoods:										
California mixed conifer	3,140	1,412	--	--	4,124	1,692	--	--	7,264	2,204
Douglas-fir	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	929	975	--	--	--	--	--	--	929	975
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	1,486	858	1,486	858
Pinyon / juniper	--	--	10,071	1,472	--	--	7,255	1,409	17,326	2,035
Ponderosa pine	867	640	--	--	2,895	1,198	396	421	4,158	1,422
Redwood	--	--	--	--	--	--	--	--	--	--
Western juniper	1,118	777	479	450	--	--	--	--	1,597	876
Western white pine	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	--	--	457	444	132	132	589	463
Total	6,054	1,928	10,551	1,539	7,475	2,107	9,270	1,690	33,349	3,619
Hardwoods:										
Alder / maple	--	--	403	370	--	--	--	--	403	370
Aspen / birch	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	3	3	--	--	225	212	228	212
Tanoak / laurel	--	--	--	--	--	--	447	389	447	389
Western oak	4,692	1,526	19,850	2,590	3,114	1,211	5,346	1,373	33,003	3,510
Woodland hardwoods	--	--	2,866	787	--	--	659	393	3,525	879
Exotic hardwoods	95	96	--	--	--	--	--	--	95	96
Other hardwoods	--	--	1,036	567	--	--	--	--	1,036	567
Total	4,787	1,529	24,158	2,762	3,114	1,211	6,678	1,491	38,737	3,681
Nonstocked	1,533	776	1,356	598	1,231	606	800	388	4,920	1,206
All forest types	12,374	2,394	36,064	3,153	11,821	2,455	16,747	2,257	77,006	4,980

Note: Totals may be off because of rounding

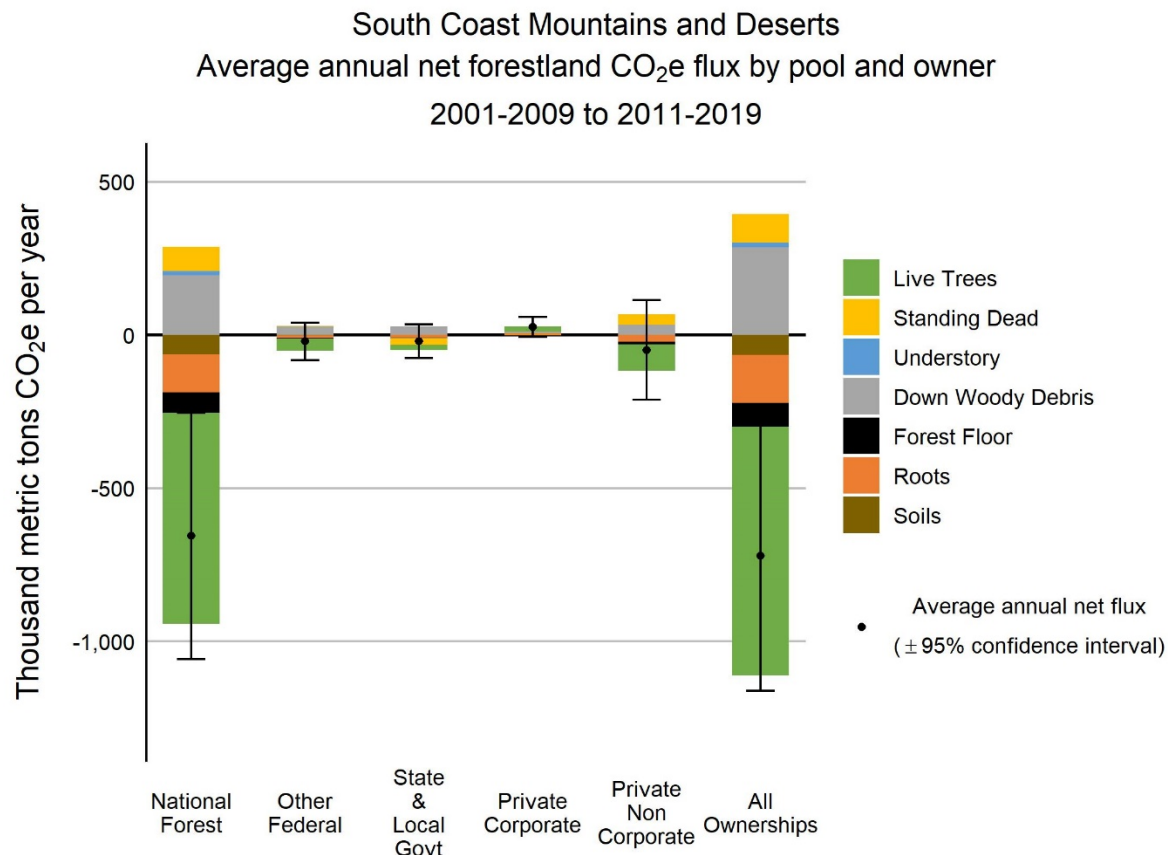


Figure A1.7.3. South Coast Mountains and Deserts average annual net forestland carbon flux by pool and ownership, 2001-2009 to 2011-2019 (MMT CO₂e/yr). Estimates exclude emissions from land-use changes. Roots includes belowground live and dead tree roots. Understory includes aboveground and belowground understory vegetation. Error bars represent the 95% confidence interval of estimated net flux. Figure derived from Appendix 2, Table B8.

**Note: this is a new figure that was not included in previous reports.*

Appendix 2: 2009 - 2018 California FIA forest carbon inventory tables

Flux are based on plots initially measured between 2001-2008 and re-measured between 2011-2018.

Stocks are based on 10-year averages with the current reporting period being 2010-2019.

A. Area

Sampled Area

Table A1- A8: Area of Sampled Land by Land Status and Owner Group, 2010-2019: [Region]

Table A1: Area of Sampled Land by Land Status and Ownership Group, 2010-2019: All California

Table A2: Area of Sampled Land by Land Status and Owner Group, 2010-2019: Central Coast and Interior Ranges

Table A3: Area of Sampled Land by Land Status and Owner Group, 2010-2019: Central Valley

Table A4: Area of Sampled Land by Land Status and Owner Group, 2010-2019: Eastside

Table A5: Area of Sampled Land by Land Status and Owner Group, 2010-2019: Klamath Interior Coast Ranges

Table A6: Area of Sampled Land by Land Status and Owner Group, 2010-2019: North Coast

Table A7: Area of Sampled Land by Land Status and Owner Group, 2010-2019: Sierra Cascades

Table A8: Area of Sampled Land by Land Status and Owner Group, 2010-2019: South Coast Mountains and Deserts

Forest Area for Forest Land Remaining Forest (FF)

Table A9- A16: Area of Forest Land by Owner Group and Forest Land Status, 2010-2019: [Region]

Table A9: Area of Forest Land by Owner Group and Forest Land Status, 2010-2019: All California

Table A10: Area of Forest Land by Owner Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Table A11: Area of Forest Land by Owner Group and Forest Land Status, 2010-2019: Central Valley

Table A12: Area of Forest Land by Owner Group and Forest Land Status, 2010-2019: Eastside

Table A13: Area of Forest Land by Owner Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Table A14: Area of Forest Land by Owner Group and Forest Land Status, 2010-2019: North Coast

Table A15: Area of Forest Land by Owner Group and Forest Land Status, 2010-2019: Sierra Cascades

Table A16: Area of Forest Land by Owner Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Forest Area for Forest Land Remaining Forest (FF): By Forest Type, Owner Group and Forest Land Status

Table A17: Area of Forest Land by Forest Type, Owner Group and Forest Land Status, 2010-2019: All California

Table A18: Area of Forest Land by Forest Type, Owner Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Table A19: Area of Forest Land by Forest Type, Owner Group and Forest Land Status, 2010-2019: Central Valley

Table A20: Area of Forest Land by Forest Type, Owner Group and Forest Land Status, 2010-2019: Eastside

Table A21: Area of Forest Land by Forest Type, Owner Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Table A22: Area of Forest Land by Forest Type, Owner Group and Forest Land Status, 2010-2019: North Coast

Table A23: Area of Forest Land by Forest Type, Owner Group and Forest Land Status, 2010-2019: Sierra Cascades

Table A24: Area of Forest Land by Forest Type, Owner Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

B. Net Carbon Flux for Forest Land Remaining Forest (FF)

Net Carbon Flux for All Pools by Owner Group

Tables B1- B8: Annual Net Change in Carbon Stocks on Forest Land for All Pools by Owner Group, 2001-2007 to 2011-2017: [Region]

Table B1: Annual Net Change in Carbon Stocks on Forest Land for All Pools by Owner Group, 2001-2007 to 2011-2017: All California

Table B2: Annual Net Change in Carbon Stocks on Forest Land for All Pools by Owner Group, 2001-2007 to 2011-2017: Central Coast and Interior Ranges

Table B3: Annual Net Change in Carbon Stocks on Forest Land for All Pools by Owner Group, 2001-2007 to 2011-2017: Central Valley

Table B4: Annual Net Change in Carbon Stocks on Forest Land for All Pools by Owner Group, 2001-2007 to 2011-2017: Eastside

Table B5: Annual Net Change in Carbon Stocks on Forest Land for All Pools by Owner Group, 2001-2007 to 2011-2017: Klamath Interior Coast Ranges

Table B6: Annual Net Change in Carbon Stocks on Forest Land for All Pools by Owner Group, 2001-2007 to 2011-2017: North Coast

Table B7: Annual Net Change in Carbon Stocks on Forest Land for All Pools by Owner Group, 2001-2007 to 2011-2017: Sierra Cascades

Table B8: Annual Net Change in Carbon Stocks on Forest Land for all Pools by Owner Group, 2001-2007 to 2011-2017: South Coast Mountains and Deserts

Disturbance Effects on Net Forest Carbon Flux

Table B9.1: Annual Net Change in Carbon Stocks for Aboveground Pools on Forest Land by Disturbance, Forest Land Status and Owner Group, 2001-2007 to 2011-2017: All California

Table B9.2: Average annual carbon (CO₂e) flux in live trees from growth, harvest, mortality, 2001-2007 to 2011-2017: COUNTY

Table B9.3: Average annual carbon (CO₂e) flux in live trees from growth, harvest, mortality, 2001-2007 to 2011-2017: NATIONAL FOREST

Table B9.4: Annual Net Change in Carbon Stocks for Aboveground Pools on Forest Land by Disturbance, Forest Land Status and Owner Group, 2001-2007 to 2011-2017: Coastal Forest Practice District

Table B9.5: Annual Net Change in Carbon Stocks for Aboveground Pools on Forest Land by Disturbance, Forest Land Status and Owner Group, 2001-2007 to 2011-2017: Northern Forest Practice District

Table B9.6: Annual Net Change in Carbon Stocks for Aboveground Pools on Forest Land by Disturbance, Forest Land Status and Owner Group, 2001-2007 to 2011-2017: Southern Forest Practice District

Table B10: Annual Net Change Per Acre in Carbon Stock for Aboveground Pools on Forest Land by Disturbance, Forest Land Status and Owner Group, 2001-2007 to 2011-2017: All California

Table B11: Annual Net Change in Carbon Stocks for Aboveground Pools on Timberland by Disturbance, Forest Land Status and Owner Group, 2001-2007 to 2011-2017: All California

Table B12: Annual Net Change Per Acre in Carbon Stock for Aboveground Pools on Timberland by Disturbance, Forest Land Status and Owner Group, 2001-2007 to 2011-2017: All California

C. Forest Carbon Stocks for Forest Land Remaining Forest (FF): by Owner Group and Forest Land Status

Aboveground Live Tree Pool

Tables C1 – C8: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inches) by Owner Group and Forest Land Status, 2010-2019: [Region]

Table C1: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inches) by Owner Group and Forest Land Status, 2010-2019: All California (Same as Table C9.10)

Table C2: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inches) by Owner Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Table C3: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inches) by Owner Group and Forest Land Status, 2010-2019: Central Valley

Table C4: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inches) by Owner Group and Forest Land Status, 2010-2019: Eastside

Table C5: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inches) by Owner Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Table C6: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inches) by Owner Group and Forest Land Status, 2010-2019: North Coast

Table C7: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inches) by Owner Group and Forest Land Status, 2010-2019: Sierra Cascades

Table C8: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inches) by Owner Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Tables C9.1 – C9.10: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inches) by Owner Group and Forest Land Status, All California, (10-year averages): [Years]

Table C9.1: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inches) by Owner Group and Forest Land Status, All California, (10-year averages): 2001-2010

Table C9.2: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inches) by Owner Group and Forest Land Status, All California, (10-year averages): 2002-2011

Table C9.3: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inches) by Owner Group and Forest Land Status, All California, (10-year averages): 2003-2012

Table C9.4: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inches) by Owner Group and Forest Land Status, All California, (10-year averages): 2004-2013

Table C9.5: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inches) by Owner Group and Forest Land Status, All California, (10-year averages): 2005-2014

Table C9.6: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inches) by Owner Group and Forest Land Status, All California, (10-year averages): 2006-2015

Table C9.7: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inches) by Owner Group and Forest Land Status, All California (10-year averages): 2007-2016

Table C9.8: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inches) by Owner Group and Forest Land Status, All California (10-year averages): 2008-2017

Table C9.9: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inches) by Owner Group and Forest Land Status, All California (10-year averages): 2009-2018

Table C9.10: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inches) by Owner Group and Forest Land Status, All California (10-year averages): 2010-2019 (Same as Table C1)

Aboveground Dead Tree Pool

Tables C10 – C17: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, 2010-2019: [Region]

Table C10: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, 2010-2019: All California (Same as Table C18.10)

Table C11: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Table C12: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, 2010-2019: Central Valley

Table C13: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, 2010-2019: Eastside

Table C14: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Table C15: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, 2010-2019: North Coast

Table C16: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, 2010-2019: Sierra Cascades

Table C17: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Tables C18.1 – C18.10 – Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees Foliage (≥ 5 inch) by Owner Group and Forest Land Status, All California (10-year averages): [Years]

Table C18.1: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees Foliage (≥ 5 inch) by Owner Group and Forest Land Status, All California (10-year averages): 2001-2010

Table C18.2: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees Foliage (≥ 5 inch) by Owner Group and Forest Land Status, All California (10-year averages): 2002-2011

Table C18.3: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees Foliage (≥ 5 inch) by Owner Group and Forest Land Status, All California (10-year averages): 2003-2012

Table C18.4: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees Foliage (≥ 5 inch) by Owner Group and Forest Land Status, All California (10-year averages): 2004-2013

Table C18.5: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees Foliage (≥ 5 inch) by Owner Group and Forest Land Status, All California (10-year averages): 2005-2014

Table C18.6: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees Foliage (≥ 5 inch) by Owner Group and Forest Land Status, All California (10-year averages): 2006-2015

Table C18.7: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees Foliage (≥ 5 inch) by Owner Group and Forest Land Status, All California (10-year averages): 2007-2016

Table C18.8: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees Foliage (≥ 5 inch) by Owner Group and Forest Land Status, All California (10-year averages): 2008-2017

Table C18.9: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees Foliage (≥ 5 inch) by Owner Group and Forest Land Status, All California (10-year averages): 2009-2018

Table C18.10: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees Foliage (≥ 5 inch) by Owner Group and Forest Land Status, All California (10-year averages): 2010-2019 (Same as Table C10)

Aboveground Live Understory Vegetation Pool

Tables C19 – C26: Aboveground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, 2010-2019: [Region]

Table C19: Aboveground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, 2010-2019: All California (information from Table C19 combined with information from Table C28 in Table C27.10)

Table C20: Aboveground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Table C21: Aboveground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, 2010-2019: Central Valley

Table C22: Aboveground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, 2010-2019: Eastside

Table C23: Aboveground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Table C24: Aboveground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, 2010-2019: North Coast

Table C25: Aboveground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, 2010-2019: Sierra Cascades

Table C26: Aboveground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Aboveground and Belowground Live Understory Vegetation, 10-Year Averages

Tables C27.1 – C27.10: Aboveground and Belowground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, All California (10-year averages): [Years]

Table C27.1: Aboveground and Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, All California (10-year averages): 2001-2010

Table C27.2: Aboveground and Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, All California (10-year averages): 2002-2011

Table C27.3: Aboveground and Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, All California (10-year averages): 2003-2012

Table C27.4: Aboveground and Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, All California (10-year averages): 2004-2013

Table C27.5: Aboveground and Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, All California (10-year averages): 2005-2014

Table C27.6: Aboveground and Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, All California (10-year averages): 2006-2015

Table C27.7: Aboveground and Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, All California (10-year averages): 2007-2016

Table C27.8: Aboveground and Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, All California (10-year averages): 2008-2017

Table C27.9: Aboveground and Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, All California (10-year averages): 2009-2018

Table C27.10: Aboveground and Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, All California (10-year averages): 2010-2019 (Same as Table C19 and Table C28 combined)

Belowground Live Understory Vegetation Pool

Tables C28 – C35: Belowground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, 2010-2019: [Region]

Table C28: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, 2010-2019: All California (information from Table C28 combined with information from Table C19 in Table C27.10)

Table C29: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Table C30: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, 2010-2019: Central Valley

Table C31: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, 2010-2019: Eastside

Table C32: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Table C33: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, 2010-2019: North Coast

Table C34: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, 2010-2019: Sierra Cascades

Table C35: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Belowground Live Tree Pool

Tables C36 - 43: Belowground Carbon, Dry Weight of Live Trees (≥ 1 inch) by Owner Group and Forest Land Status, 2010-2019: [Region]

Table C36: Belowground Carbon, Dry Weight of Live Trees (≥ 1 inch) by Owner Group and Forest Land Status, 2010-2019: All California (information from Table C36 combined with information from Table C45 in Table C44.10)

Table C37: Belowground Carbon, Dry Weight of Live Trees (≥ 1 inch) by Owner Group and Forest Land Status, 2010-2019: Central Coast and Interior Range

Table C38: Belowground Carbon, Dry Weight of Live Trees (≥ 1 inch) by Owner Group and Forest Land Status, 2010-2019: Central Valley

Table C39: Belowground Carbon, Dry Weight of Live Trees (≥ 1 inch) by Owner Group and Forest Land Status, 2010-2019: Eastside

Table C40: Belowground Carbon, Dry Weight of Live Trees (≥ 1 inch) by Owner Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Table C41: Belowground Carbon, Dry Weight of Live Trees (≥ 1 inch) by Owner Group and Forest Land Status, 2010-2019: North Coast

Table C42: Belowground Carbon, Dry Weight of Live Trees (≥ 1 inch) by Owner Group and Forest Land Status, 2010-2019: Sierra Cascades

Table C43: Belowground Carbon, Dry Weight of Live Trees (≥ 1 inch) by Owner Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Belowground Live and Dead Tree Pool, 10-year averages

Tables C44.1 – C44.10: Belowground Carbon, Dry Weight of Live (≥ 1 inch) and Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, All California (10-year averages): [Years]

Table C44.1: Belowground Carbon, Dry Weight of Live (≥ 1 inch) and Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, All California (10-year averages): 2001-2010

Table C44.2: Belowground Carbon, Dry Weight of Live (≥ 1 inch) and Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, All California (10-year averages): 2002-2011

Table C44.3: Belowground Carbon, Dry Weight of Live (≥ 1 inch) and Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, All California (10-year averages): 2003-2012

Table C44.4: Belowground Carbon, Dry Weight of Live (≥ 1 inch) and Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, All California (10-year averages): 2004-2013

Table C44.5: Belowground Carbon, Dry Weight of Live (≥ 1 inch) and Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, All California (10-year averages): 2005-2014

Table C44.6: Belowground Carbon, Dry Weight of Live (≥ 1 inch) and Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, All California (10-year averages): 2006-2015

Table C44.7: Belowground Carbon, Dry Weight of Live Trees (≥ 1 inch) and Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, All California (10-year averages): 2007-2016

Table C44.8: Belowground Carbon, Dry Weight of Live Trees (≥ 1 inch) and Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, All California (10-year averages): 2008-2017

Table C44.9: Belowground Carbon, Dry Weight of Live Trees (≥ 1 inch) and Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, All California (10-year averages): 2009-2018

Table C44.10: Belowground Carbon, Dry Weight of Live Trees (≥ 1 inch) and Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, All California (10-year averages): 2010-2019 (Same as Table C36 and Table C45 combined)

Belowground Dead Tree Pool

Tables C45 – 52: Belowground Carbon, Dry Weight of Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, 2010-2019: [Regions]

Table C45: Belowground Carbon, Dry Weight of Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, 2010-2019: All California (information from Table C45 combined with information from Table C36 in Table C44.10)

Table C46: Belowground Carbon, Dry Weight of Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Table C47: Belowground Carbon, Dry Weight of Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, 2010-2019: Central Valley

Table C48: Belowground Carbon, Dry Weight of Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, 2010-2019: Eastside

Table C49: Belowground Carbon, Dry Weight of Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Table C50: Belowground Carbon, Dry Weight of Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, 2010-2019: North Coast

Table C51: Belowground Carbon, Dry Weight of Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, 2010-2019: Sierra Cascades

Table C52: Belowground Carbon, Dry Weight of Dead Trees (≥ 5 inch) by Owner Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Soil Organic Carbon Pool

Tables C53 – C60: Soil Organic Carbon by Owner Group and Forest Land Status, 2010-2019: [Region]

Table C53: Soil Organic Carbon by Owner Group and Forest Land Status, 2010-2019: All California (information duplicated in Table C61.10)

Table C54: Soil Organic Carbon by Owner Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Table C55: Soil Organic Carbon by Owner Group and Forest Land Status, 2010-2019: Central Valley

Table C56: Soil Organic Carbon by Owner Group and Forest Land Status, 2010-2019: Eastside

Table C57: Soil Organic Carbon by Owner Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Table C58: Soil Organic Carbon by Owner Group and Forest Land Status, 2010-2019: North Coast

Table C59: Soil Organic Carbon by Owner Group and Forest Land Status, 2010-2019: Sierra Cascades

Table C60: Soil Organic Carbon by Owner Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Tables C61.1 – C61.10: Soil Organic Carbon by Owner Group and Forest Land Status, All California (10 year averages): [Years]

Table C61.1: Soil Organic Carbon by Owner Group and Forest Land Status, All California (10-year averages): 2001-2010

Table C61.2: Soil Organic Carbon by Owner Group and Forest Land Status, All California (10-year averages): 2002-2011

Table C61.3: Soil Organic Carbon by Owner Group and Forest Land Status, All California (10-year averages): 2003-2012

Table C61.4: Soil Organic Carbon by Owner Group and Forest Land Status, All California (10-year averages): 2004-2013

Table C61.5: Soil Organic Carbon by Owner Group and Forest Land Status, All California (10-year averages): 2005-2014

Table C61.6: Soil Organic Carbon by Owner Group and Forest Land Status, All California (10-year averages): 2006-2015

Table C61.7: Soil Organic Carbon by Owner Group and Forest Land Status, All California (10-year averages): 2007-2016

Table C61.8: Soil Organic Carbon by Owner Group and Forest Land Status, All California (10-year averages): 2008-2017

Table C61.9: Soil Organic Carbon by Owner Group and Forest Land Status, All California (10-year averages): 2009-2018

Table C61.10: Soil Organic Carbon by Owner Group and Forest Land Status, All California (10-year averages): 2010-2019 (Same as Table C53)

Aboveground Down Dead Wood Pool

Tables C62 – C69: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, 2010-2019: [Region]

Table C62: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, 2005-2016: All California (information duplicated in Table C70.10)

Table C63: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, 2005-2016: Central Coast and Interior Ranges

Table C64: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, 2005-2016: Central Valley

Table C65: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, 2005-2016: Eastside

Table C66: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, 2005-2016: Klamath Interior Coast Ranges

Table C67: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, 2005-2016: North Coast

Table C68: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, 2005-2016: Sierra Cascades

Table C69: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, 2005-2016: South Coast Mountains and Deserts

Tables C70.1 – C70.10: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, All California (10-year averages): [Years]

Table C70.1: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, All California (10-year averages): 2001-2010

Table C70.2: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, All California (10-year averages): 2002-2011

Table C70.3: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, All California (10-year averages): 2003-2012

Table C70.4: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, All California (10-year averages): 2004-2013

Table C70.5: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, All California (10-year averages): 2005-2014

Table C70.6: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, All California (10-year averages): 2006-2015

Table C70.7: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, All California (10-year averages): 2007-2016

Table C70.8: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, All California (10-year averages): 2008-2017

Table C70.9: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, All California (10-year averages): 2009-2018

Table C70.10: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, All California (10-year averages): 2010-2019 (information duplicated in Table C62)

Forest Floor Pool

Tables C71 – C78: Forest Floor by Owner Group and Forest Land Status, 2010-2019: [Region]

Table C71: Forest Floor by Owner Group and Forest Land Status, 2010-2019: All California (same as Table C79.10)

Table C72: Forest Floor by Owner Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Table C73: Forest Floor by Owner Group and Forest Land Status, 2010-2019: Central Valley

Table C74: Forest Floor by Owner Group and Forest Land Status, 2010-2019: Eastside

Table C75: Forest Floor by Owner Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Table C76: Forest Floor by Owner Group and Forest Land Status, 2010-2019: North Coast

Table C77: Forest Floor by Owner Group and Forest Land Status, 2010-2019: Sierra Cascades

Table C78: Forest Floor by Owner Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Tables C79.1 – C79.10: Forest Floor Pool, by Owner Group and Forest Land Status, All California (10-year averages): [Years]

Table C79.1: Forest Floor by Owner Group and Forest Land Status, All California (10 year averages): 2001 – 2010

Table C79.2: Forest Floor by Owner Group and Forest Land Status, All California (10 year averages): 2002 – 2011

Table C79.3: Forest Floor by Owner Group and Forest Land Status, All California (10 year averages): 2003 – 2012

Table C79.4: Forest Floor by Owner Group and Forest Land Status, All California (10 year averages): 2004 – 2013

Table C79.5: Forest Floor by Owner Group and Forest Land Status, All California (10 year averages): 2005 – 2014

Table C79.6: Forest Floor by Owner Group and Forest Land Status, All California (10 year averages): 2006 – 2015

Table C79.7: Forest Floor by Owner Group and Forest Land Status, All California (10 year averages): 2007 – 2016

Table C79.8: Forest Floor by Owner Group and Forest Land Status, All California (10 year averages): 2008 – 2017

Table C79.9: Forest Floor by Owner Group and Forest Land Status, All California (10 year averages): 2009-2018

Table C79.10: Forest Floor by Owner Group and Forest Land Status, All California (10 year averages): 2010-2019 (Information duplicated in Table C71)

D. Forest Carbon Stocks for Forest Land Remaining Forest (FF): by Forest Type and Forest Land Status

Aboveground Live Tree Pool

Tables D1 - D8: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inch) by Forest Type and Forest Land Status, 2010-2019: [Region]

Table D1: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inch) by Forest Type and Land Status, 2010-2019: All California

Table D2: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inch) by Forest Type and Land Status, 2010-2019: Central Coast and Interior Ranges

Table D3: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inch) by Forest Type and Land Status, 2010-2019: Central Valley

Table D4: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inch) by Forest Type and Land Status, 2010-2019: Eastside

Table D5: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inch) by Forest Type and Land Status, 2010-2019: Klamath Interior Coast Ranges

Table D6: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inch) by Forest Type and Land Status, 2010-2019: North Coast

Table D7: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inch) by Forest Type and Land Status, 2010-2019: Sierra Cascades

Table D8: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (≥ 1 inch) by Forest Type and Land Status, 2010-2019: South Coast Mountains and Deserts

Aboveground Dead Tree Pool

Tables D9 – D16: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (≥ 5 inch) by Forest Type and Forest Land Status, 2010-2019: [Region]

Table D9: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (≥ 5 inch) by Forest Type and Forest Land Status, 2010-2019: All California

Table D10: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (≥ 5 inch) by Forest Type and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Table D11: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (≥ 5 inch) by Forest Type and Forest Land Status, 2010-2019: Central Valley

Table D12: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (≥ 5 inches) by Forest Type and Forest Land Status, 2010-2019: Eastside

Table D13: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (≥ 5 inch) by Forest Type and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Table D14: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (≥ 5 inch) by Forest Type and Forest Land Status, 2010-2019: North Coast

Table D15: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (≥ 5 inch) by Forest Type and Forest Land Status, 2010-2019: Sierra Cascades

Table D16: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (≥ 5 inch) by Forest Type and Forest Land Status - South Coast Mountains and Deserts

Aboveground Live Understory Vegetation Pool

Tables D17 – D24: Aboveground Carbon, Dry Weight of Live Understory Vegetation by Forest Type and Forest Land Status, 2010-2019: [Region]

Table D17: Aboveground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: All California

Table D18: Aboveground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Table D19: Aboveground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: Central Valley

Table D20: Aboveground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: Eastside

Table D21: Aboveground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Table D22: Aboveground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: North Coast

Table D23: Aboveground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: Sierra Cascades

Table D24: Aboveground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Belowground Live Understory Vegetation Pool

Tables D25 - D32 – Belowground Carbon, Dry Weight of Live Understory Vegetation by Forest Type and Forest Land Status, 2010-2019: [Region]

Table D25: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: All California

Table D26: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Table D27: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: Central Valley

Table D28: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: Eastside

Table D29: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Table D30: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: North Coast

Table D31: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: Sierra Cascades

Table D32: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Belowground Live Tree Pool

Tables D33 – D40 – Belowground Carbon, Dry Weight of Live Trees (≥ 1 inch) by Forest Type and Forest Land Status, 2010-2019: [Region]

Table D33: Belowground Carbon, Dry Weight of Live Trees (≥ 1 inch) by Forest Type and Forest Land Status, 2010-2019: All California

Table D34: Belowground Carbon, Dry Weight of Live Trees (≥ 1 inch) by Forest Type and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Table D35: Belowground Carbon, Dry Weight of Live Trees (≥ 1 inch) by Forest Type and Forest Land Status, 2010-2019: Central Valley

Table D36: Belowground Carbon, Dry Weight of Live Trees (≥ 1 inch) by Forest Type and Forest Land Status, 2010-2019: Eastside

Table D37: Belowground Carbon, Dry Weight of Live Trees (≥ 1 inch) by Forest Type and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Table D38: Belowground Carbon, Dry Weight of Live Trees (≥ 1 inch) by Forest Type and Forest Land Status, 2010-2019: North Coast

Table D39: Belowground Carbon, Dry Weight of Live Trees (≥ 1 inch) by Forest Type and Forest Land Status, 2010-2019: Sierra Cascades

Table D40: Belowground Carbon, Dry Weight of Live Trees (≥ 1 inch) by Forest Type and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Belowground Dead Tree Pool

Tables D41 - 48 – Belowground Carbon, Dry Weight of Dead Trees (≥ 5 inch) by Forest Type and Forest Land Status, 2010-2019: [Region]

Table D41: Belowground Carbon, Dry Weight of Dead Trees (≥ 5 inch) by Forest Type and Forest Land Status, 2010-2019: All California

Table D42: Belowground Carbon, Dry Weight of Dead Trees (≥ 5 inch) by Forest Type and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Table D43: Belowground Carbon, Dry Weight of Dead Trees (≥ 5 inch) by Forest Type and Forest Land Status, 2010-2019: Central Valley

Table D44: Belowground Carbon, Dry Weight of Dead Trees (≥ 5 inch) by Forest Type and Forest Land Status, 2010-2019: Eastside

Table D45: Belowground Carbon, Dry Weight of Dead Trees (≥ 5 inch) by Forest Type and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Table D46: Belowground Carbon, Dry Weight of Dead Trees (≥ 5 inch) by Forest Type and Forest Land Status, 2010-2019: North Coast

Table D47: Belowground Carbon, Dry Weight of Dead Trees (≥ 5 inch) by Forest Type and Forest Land Status, 2010-2019: Sierra Cascades

Table D48: Belowground Carbon, Dry Weight of Dead Trees (≥ 5 inch) by Forest Type and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Soil Organic Carbon Pool

Tables D49 – D56 – Soil Organic Carbon by Forest Type Group and Forest Land Status, 2010-2019: [Region]

Table D49: Soil Organic Carbon by Forest Type Group and Forest Land Status, 2010-2019: All California

Table D50: Soil Organic Carbon by Forest Type Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Table D51: Soil Organic Carbon by Forest Type Group and Forest Land Status, 2010-2019: Central Valley

Table D52: Soil Organic Carbon by Forest Type Group and Forest Land Status, 2010-2019: Eastside

Table D53: Soil Organic Carbon by Forest Type Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Table D54: Soil Organic Carbon by Forest Type Group and Forest Land Status, 2010-2019: North Coast

Table D55: Soil Organic Carbon by Forest Type Group and Forest Land Status, 2010-2019: Sierra Cascades

Table D56: Soil Organic Carbon by Forest Type Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Aboveground Down Dead Wood Pool:

Tables D57 – D64 – Aboveground Carbon Mass of Down Dead Wood by Forest Type Group and Forest Land Status, 2010-2019: [Region]

Table D57: Aboveground Carbon Mass of Down Dead Wood, by Forest Type and Forest Land Status, 2010-2019: All California

Table D58: Aboveground Carbon Mass of Down Dead Wood, by Forest Type and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Table D59: Aboveground Carbon Mass of Down Dead Wood, by Forest Type and Forest Land Status, 2010-2019: Central Valley

Table D60: Aboveground Carbon Mass of Down Dead Wood, by Forest Type and Forest Land Status, 2010-2019: Eastside

Table D61: Aboveground Carbon Mass of Down Dead Wood, by Forest Type and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Table D62: Aboveground Carbon Mass of Down Dead Wood, by Forest Type and Forest Land Status, 2010-2019: North Coast

Table D63: Aboveground Carbon Mass of Down Dead Wood, by Forest Type and Forest Land Status, 2010-2019: Sierra Cascades

Table D64: Aboveground Carbon Mass of Down Dead Wood, by Forest Type and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Forest Floor Pool

Tables D65 – D72 – Forest Floor by Forest Type Group and Forest Land Status, 2010-2019: [Region]

Table D65: Forest Floor by Forest Type Group and Forest Land Status, 2010-2019: All California

Table D66: Forest Floor by Forest Type Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Table D67: Forest Floor by Forest Type Group and Forest Land Status, 2010-2019: Central Valley

Table D68: Forest Floor by Forest Type Group and Forest Land Status, 2010-2019: Eastside

Table D69: Forest Floor by Forest Type Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Table D70: Forest Floor by Forest Type Group and Forest Land Status, 2010-2019: North Coast

Table D71: Forest Floor by Forest Type Group and Forest Land Status, 2010-2019: Sierra Cascades

Table D72: Forest Floor by Forest Type Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

E. Forest Land Conversions (LF)

Changes in Area from Forest Land-Use Conversions

Table E1: Annual Change in Forest Land Area To and From Other IPCC Land-Use Classes in California, 2001-2009 to 2011-2019

Net Forest Carbon Flux from Forest Land-Use Conversions

Table E2: Annual Change in Carbon Pools Due to Change in Land-Use Between Forest and Non-forest in California, 2001-2009 to 2011-2019

F. Net Flux from Other GHG emissions

Table F1 - Annual Net Emissions of Non-CO₂e Greenhouse Gases from Fire, 2001-2009 to 2011-2019

Table A1: Area of Sampled Land by Land Status and Owner Group, 2010-2019: All California

	Ownership group									
	National forest		Other federal		State and local govt.		Private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Land status	<i>thousand acres</i>									
Unreserved forest land:										
Timberland	8,750	106	257	37	156	28	7,140	102	16,303	150
Other unreserved forest land	2,329	94	982	69	198	32	5,343	129	8,851	175
Total, unreserved	11,079	110	1,238	76	354	43	12,483	135	25,154	186
Reserved forest land:										
Reserved productive forest land	2,761	87	998	56	333	30	--	--	4,093	106
Other reserved forest land	1,277	76	688	60	395	40	--	--	2,360	105
Total, reserved forest land	4,038	92	1,686	74	728	47	--	--	6,453	127
Total, forest land	15,117	119	2,924	87	1,083	52	12,483	135	31,607	192
Nonforest and other area:										
Nonforest land	5,476	114	23,667	135	3,037	100	35,824	181	68,005	206
Noncensus water	36	9	33	12	16	7	167	29	252	34
Census water	--	--	--	--	4,909	75	--	--	4,909	75
Total, nonforest and other area	5,512	114	23,701	135	7,963	116	35,991	180	73,166	192
Total, all sampled area	20,629	63	26,625	122	9,046	120	48,474	148	104,773	51

Table A2: Area of Sampled Land by Land Status and Owner Group, 2010-2019: Central Coast and Interior Ranges

	Ownership group									
	National forest		Other federal		State and local govt.		Private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Land status	<i>thousand acres</i>									
Unreserved forest land:										
Timberland	1	1	--	--	24	12	200	34	225	36
Other unreserved forest land	82	21	96	22	41	14	849	64	1,067	73
Total, unreserved	82	21	96	22	65	18	1,048	72	1,292	81
Reserved forest land:										
Reserved productive forest land	31	14	--	--	78	21	--	--	110	25
Other reserved forest land	136	26	23	12	186	28	--	--	345	40
Total, reserved forest land	168	29	23	12	264	32	--	--	455	45
Total, forest land	250	35	119	25	329	36	1,048	72	1,747	91
Nonforest and other area:										
Nonforest land	510	48	691	64	351	43	5,814	175	7,366	196
Noncensus water	2	2	8	6	1	2	16	8	28	10
Census water	--	--	--	--	1,002	72	--	--	1,002	72
Total, nonforest and other area	512	48	699	64	1,354	84	5,831	175	8,396	209
Total, all sampled area	763	57	818	68	1,683	91	6,879	191	10,142	228

Table A3: Area of Sampled Land by Land Status and Owner Group, 2010-2019: Central Valley

	Ownership group									
	National forest		Other federal		State and local govt.		Private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Land status	<i>thousand acres</i>									
Unreserved forest land:										
Timberland	--	--	--	--	--	--	--	--	--	--
Other unreserved forest land	--	--	--	--	4	3	91	22	95	22
Total, unreserved	--	--	--	--	4	3	91	22	95	22
Reserved forest land:										
Reserved productive forest land	--	--	--	--	--	--	--	--	--	--
Other reserved forest land	--	--	1	1	5	5	--	--	6	5
Total, reserved forest land	--	--	1	1	5	5	--	--	6	5
Total, forest land	--	--	1	1	9	6	91	22	101	23
Nonforest and other area:										
Nonforest land	--	--	282	42	163	31	11,545	202	11,990	207
Noncensus water	--	--	--	--	2	2	42	16	44	16
Census water	--	--	--	--	144	30	--	--	144	30
Total, nonforest and other area	--	--	282	42	308	43	11,588	202	12,177	209
Total, all sampled area	--	--	283	42	317	44	11,678	204	12,278	211

Table A4: Area of Sampled Land by Land Status and Owner Group, 2010-2019: Eastside

	Ownership group									
	National forest		Other federal		State and local govt.		Private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Land status	<i>thousand acres</i>									
Unreserved forest land:										
Timberland	630	44	25	12	--	--	321	43	975	63
Other unreserved forest land	723	51	455	50	--	--	197	34	1,374	79
Total, unreserved	1,352	62	479	50	--	--	518	55	2,350	96
Reserved forest land:										
Reserved productive forest land	57	18	--	--	6	6	--	--	63	19
Other reserved forest land	109	25	120	27	6	6	--	--	235	37
Total, reserved forest land	167	31	120	27	11	9	--	--	298	42
Total, forest land	1,519	68	600	55	11	9	518	55	2,648	103
Nonforest and other area:										
Nonforest land	1,140	64	3,765	140	320	43	1,230	80	6,454	177
Noncensus water	2	2	6	6	6	6	12	9	26	13
Census water	--	--	--	--	282	41	--	--	282	41
Total, nonforest and other area	1,142	64	3,771	140	608	60	1,242	81	6,763	182
Total, all sampled area	2,661	76	4,371	147	619	61	1,759	97	9,411	199

Table A5: Area of Sampled Land by Land Status and Owner Group, 2010-2019: Klamath Interior Coast Ranges

	Ownership group									
	National forest		Other federal		State and local govt.		Private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Land status	<i>thousand acres</i>									
Unreserved forest land:										
Timberland	2,617	77	99	24	12	7	1,695	91	4,423	122
Other unreserved forest land	371	45	116	25	33	14	1,450	84	1,971	99
Total, unreserved	2,988	79	215	35	45	16	3,145	122	6,393	150
Reserved forest land:										
Reserved productive forest land	1,361	64	71	20	6	5	--	--	1,438	67
Other reserved forest land	255	39	69	20	26	13	--	--	350	45
Total, reserved forest land	1,615	68	141	28	32	14	--	--	1,788	75
Total, forest land	4,604	87	356	42	77	21	3,145	122	8,181	156
Nonforest and other area:										
Nonforest land	361	40	310	39	64	18	2,263	109	2,998	124
Noncensus water	9	5	1	1	3	2	51	15	64	16
Census water	--	--	--	--	169	32	--	--	169	32
Total, nonforest and other area	370	40	311	39	236	37	2,314	110	3,231	129
Total, all sampled area	4,973	87	667	56	313	43	5,459	164	11,412	197

Table A6: Area of Sampled Land by Land Status and Owner Group, 2010-2019: North Coast

	Ownership group									
	National forest		Other federal		State and local govt.		Private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Land status	<i>thousand acres</i>									
Unreserved forest land:										
Timberland	23	12	53	17	72	19	2,038	84	2,186	88
Other unreserved forest land	5	5			9	5	179	31	193	31
Total, unreserved	28	13	54	17	81	20	2,217	88	2,379	93
Reserved forest land:										
Reserved productive forest land	13	9	87	23	157	24	--	--	257	34
Other reserved forest land	--	--	6	6	45	17	--	--	51	18
Total, reserved forest land	13	9	93	23	203	29	--	--	308	38
Total, forest land	41	16	146	28	284	29	2,217	88	2,687	98
Nonforest and other area:										
Nonforest land	--	--	86	23	115	26	1,072	78	1,272	85
Noncensus water	--	--	--	--	1	2	20	10	21	10
Census water	--	--	--	--	1,031	73	--	--	1,031	73
Total, nonforest and other area	--	--	86	23	1,147	77	1,091	79	2,324	113
Total, all sampled area	41	16	232	36	1,430	83	3,308	120	5,011	151

Table A7: Area of Sampled Land by Land Status and Owner Group, 2010-2019: Sierra Cascades

	Ownership group									
	National forest		Other federal		State and local govt.		Private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Land status	<i>thousand acres</i>									
Unreserved forest land:										
Timberland	5,352	94	77	21	48	17	2,868	99	8,345	138
Other unreserved forest land	779	60	259	38	92	24	2,332	102	3,462	126
Total, unreserved	6,130	95	336	43	140	29	5,201	137	11,807	172
Reserved forest land:										
Reserved productive forest land	1,158	60	840	52	72	20	--	--	2,071	82
Other reserved forest land	617	55	351	44	70	20	--	--	1,037	73
Total, reserved forest land	1,775	66	1,192	62	142	28	--	--	3,109	95
Total, forest land	7,905	110	1,527	71	282	39	5,201	137	14,916	188
Nonforest and other area:										
Nonforest land	1,614	83	1,171	78	174	30	3,442	133	6,402	176
Noncensus water	20	6	12	4	3	2	12	6	47	10
Census water	--	--	--	--	279	41	--	--	279	41
Total, nonforest and other area	1,634	83	1,182	78	456	51	3,455	133	6,727	181
Total, all sampled area	9,539	110	2,709	98	739	64	8,656	183	21,643	237

Table A8: Area of Sampled Land by Land Status and Owner Group, 2010-2019: South Coast Mountains and Deserts

	Ownership group									
	National forest		Other federal		State and local govt.		Private		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
Land status	<i>thousand acres</i>									
Unreserved forest land:										
Timberland	127	26	2	2	--	--	19	10	149	28
Other unreserved forest land	370	40	56	17	18	9	245	36	690	57
Total, unreserved	498	45	58	18	18	9	264	38	838	61
Reserved forest land:										
Reserved productive forest land	141	29	--	--	14	9	--	--	154	30
Other reserved forest land	160	29	117	26	58	18	--	--	335	43
Total, reserved forest land	301	40	117	26	72	20	--	--	490	52
Total, forest land	799	59	176	31	90	22	264	38	1,328	79
Nonforest and other area:										
Nonforest land	1,851	72	17,363	170	1,851	85	10,458	212	31,523	271
Noncensus water	2	2	6	6	--	--	13	9	21	11
Census water	--	--	--	--	2,004	91	--	--	2,004	91
Total, nonforest and other area	1,853	72	17,369	170	3,855	123	10,471	212	33,548	282
Total, all sampled area	2,651	80	17,545	170	3,945	124	10,735	216	34,876	287

Table A9: Area of forest land by Owner Group and Forest Land Status, 2010-2019: All California

Owner class	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
	<i>thousand acres</i>													
USDA Forest Service:														
National Forest	8,750	106	2,329	94	11,079	110	2,761	87	1,277	76	4,038	92	15,117	119
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	8,750	106	2,329	94	11,079	110	2,761	87	1,277	76	4,038	92	15,117	119
Other federal government:														
Bureau of Land Management	234	36	850	66	1,085	72	50	18	204	34	254	38	1,339	78
Department of Defense and Energy	19	11	84	21	103	24	--	--	5	5	5	5	108	24
National Park Service	--	--	--	--	--	--	945	55	474	52	1,418	71	1,418	71
U.S. Fish and Wildlife Service	--	--	--	--	--	--	4	4	1	1	4	4	4	4
Other federal	3	4	47	16	51	17	--	--	5	3	5	3	55	17
Total	257	37	982	69	1,238	76	998	56	688	60	1,686	74	2,924	87
State and local government:														
Local	54	18	134	26	188	32	38	15	129	24	167	26	355	40
State	102	23	63	19	165	30	291	28	257	36	548	45	714	47
Other public	--	--	1	1	1	1	4	5	9	8	13	9	14	10
Total	156	28	198	32	354	43	333	30	395	40	728	47	1,083	52
Private:														
Corporate	4,393	104	981	72	5,375	121	--	--	--	--	--	--	5,375	121
Noncorporate private:														
Total, noncorporate private	2,747	105	4,361	124	7,108	149	--	--	--	--	--	--	7,108	149
All private	7,140	102	5,343	129	12,483	135	--	--	--	--	--	--	12,483	135
All owners	16,303	150	8,851	175	25,154	186	4,093	106	2,360	105	6,453	127	31,607	192

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 500 acre were estimated.

Timberland: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other Forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table A10: Area of forest land by Owner Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Owner class	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	SE
	<i>thousand acres</i>													
USDA Forest Service:														
National Forest	1	1	82	21	82	21	31	14	136	26	168	29	250	35
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	1	1	82	21	82	21	31	14	136	26	168	29	250	35
Other federal government:														
Bureau of Land Management	--	--	43	16	43	16	--	--	9	7	9	7	53	18
Department of Defense and Energy	--	--	48	15	48	15	--	--	--	--	--	--	48	15
National Park Service	--	--	--	--	--	--	--	--	13	10	13	10	13	10
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	5	6	5	6	--	--	--	--	--	--	5	6
Total	--	--	96	22	96	22	--	--	23	12	23	12	119	25
State and local government:														
Local	--	--	31	12	31	12	38	15	78	19	116	22	147	24
State	24	12	10	7	34	14	36	15	98	23	134	27	168	30
Other public	--	--	--	--	--	--	4	5	9	8	13	9	13	9
Total	24	12	41	14	65	18	78	21	186	28	264	32	329	36
Private:														
Corporate	43	16	131	26	174	30	--	--	--	--	--	--	174	30
Noncorporate private:														
Total, noncorporate private	157	30	717	60	874	67	--	--	--	--	--	--	874	67
All private	200	34	849	64	1,048	72	--	--	--	--	--	--	1,048	72
All owners	225	36	1,067	73	1,292	81	110	25	345	40	455	45	1,747	91

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 500 acre were estimated.

Timberland: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other Forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table A11: Area of forest land by Owner Group and Forest Land Status, 2010-2019: Central Valley

Owner class	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	SE
	<i>thousand acres</i>													
USDA Forest Service:														
National Forest	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal government:														
Bureau of Land Management	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	1	1	1	1	1	1
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	1	1	1	1	1	1
State and local government:														
Local	--	--	4	3	4	3	--	--	--	--	--	--	4	3
State	--	--	--	--	--	--	--	--	5	5	5	5	5	5
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	4	3	4	3	--	--	5	5	5	5	9	6
Private:														
Corporate	--	--	5	5	5	5	--	--	--	--	--	--	5	5
Noncorporate private:														
Total, noncorporate private	--	--	86	22	86	22	--	--	--	--	--	--	86	22
All private	--	--	91	22	91	22	--	--	--	--	--	--	91	22
All owners	--	--	95	22	95	22	--	--	6	5	6	5	101	23

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 500 acre were estimated.

Timberland: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other Forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table A12: Area of forest land by Owner Group and Forest Land Status, 2010-2019: Eastside

Owner class	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	SE
	<i>thousand acres</i>													
USDA Forest Service:														
National Forest	630	44	723	51	1,352	62	57	18	109	25	167	31	1,519	68
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	630	44	723	51	1,352	62	57	18	109	25	167	31	1,519	68
Other federal government:														
Bureau of Land Management	25	12	422	48	446	49	--	--	50	18	50	18	497	51
Department of Defense and Energy	--	--	33	14	33	14	--	--	--	--	--	--	33	14
National Park Service	--	--	--	--	--	--	--	--	70	20	70	20	70	20
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	25	12	455	50	479	50	--	--	120	27	120	27	600	55
State and local government:														
Local	--	--	--	--	--	--	--	--	--	--	--	--	--	--
State	--	--	--	--	--	--	6	6	6	6	11	9	11	9
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	6	6	6	6	11	9	11	9
Private:														
Corporate	234	37	70	20	305	42	--	--	--	--	--	--	305	42
Noncorporate private:														
Total, noncorporate private	86	23	127	27	213	36	--	--	--	--	--	--	213	36
All private	321	43	197	34	518	55	--	--	--	--	--	--	518	55
All owners	975	63	1,374	79	2,350	96	63	19	235	37	298	42	2,648	103

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 500 acre were estimated.

Timberland: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other Forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table A13: Area of forest land by Owner Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Owner class	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	SE
	<i>thousand acres</i>													
USDA Forest Service:														
National Forest	2,617	77	371	45	2,988	79	1,361	64	255	39	1,615	68	4,604	87
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	2,617	77	371	45	2,988	79	1,361	64	255	39	1,615	68	4,604	87
Other federal government:														
Bureau of Land Management	96	24	110	25	206	34	8	7	24	12	31	14	238	36
Department of Defense and Energy	--	--	--	--	--	--	--	--	5	5	5	5	5	5
National Park Service	--	--	--	--	--	--	64	19	40	16	104	25	104	25
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	3	4	6	5	9	6	--	--	1	1	1	1	10	6
Total	99	24	116	25	215	35	71	20	69	20	141	28	356	42
State and local government:														
Local	5	5	14	9	19	10	--	--	6	6	6	6	25	12
State	7	5	19	11	26	12	6	5	19	11	25	13	51	17
Other public	--	--	1	1	1	1	--	--	--	--	--	--	1	1
Total	12	7	33	14	45	16	6	5	26	13	32	14	77	21
Private:														
Corporate	920	70	343	44	1,264	82	--	--	--	--	--	--	1,264	82
Noncorporate private:														
Total, noncorporate private	774	66	1,107	74	1,881	98	--	--	--	--	--	--	1,881	98
All private	1,695	91	1,450	84	3,145	122	--	--	--	--	--	--	3,145	122
All owners	4,423	122	1,971	99	6,393	150	1,438	67	350	45	1,788	75	8,181	156

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 500 acre were estimated.

Timberland: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other Forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table A14: Area of forest land by Owner Group and Forest Land Status, 2010-2019: North Coast

Owner class	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	SE
	<i>thousand acres</i>													
USDA Forest Service:														
National Forest	23	12	5	5	28	13	13	9	--	--	13	9	41	16
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	23	12	5	5	28	13	13	9	--	--	13	9	41	16
Other federal government:														
Bureau of Land Management	36	14	--	--	36	14	36	15	--	--	36	15	72	20
Department of Defense and Energy	17	11			17	11	--	--	--	--	--	--	17	11
National Park Service	--	--	--	--	--	--	47	17	6	6	53	18	53	18
U.S. Fish and Wildlife Service	--	--	--	--	--	--	4	4	--	--	4	4	4	4
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	53	17			54	17	87	23	6	6	93	23	146	28
State and local government:														
Local	23	11	7	5	31	13	--	--	33	14	33	14	63	19
State	48	16	2	2	50	16	157	24	13	9	170	25	220	24
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	72	19	9	5	81	20	157	24	45	17	203	29	284	29
Private:														
Corporate	1,168	71	30	12	1,198	72	--	--	--	--	--	--	1,198	72
Noncorporate private:														
Total, noncorporate private	870	65	149	28	1,019	70	--	--	--	--	--	--	1,019	70
All private	2,038	84	179	31	2,217	88	--	--	--	--	--	--	2,217	88
All owners	2,186	88	193	31	2,379	93	257	34	51	18	308	38	2,687	98

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 500 acre were estimated.

Timberland: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other Forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table A15: Area of forest land by Owner Group and Forest Land Status, 2010-2019: Sierra Cascades

Owner class	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	SE
	<i>thousand acres</i>													
USDA Forest Service:														
National Forest	5,352	94	779	60	6,130	95	1,158	60	617	55	1,775	66	7,905	110
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	5,352	94	779	60	6,130	95	1,158	60	617	55	1,775	66	7,905	110
Other federal government:														
Bureau of Land Management	77	21	242	37	319	42	7	6	102	24	109	25	428	48
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	833	52	247	39	1,081	60	1,081	60
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	16	9	16	9	--	--	2	2	2	2	18	10
Total	77	21	259	38	336	43	840	52	351	44	1,192	62	1,527	71
State and local government:														
Local	26	13	59	19	86	23	--	--	8	6	8	6	93	24
State	22	11	33	15	55	19	72	20	62	19	134	27	189	32
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	48	17	92	24	140	29	72	20	70	20	142	28	282	39
Private:														
Corporate	2,023	88	353	45	2,376	98	--	--	--	--	--	--	2,376	98
Noncorporate private:														
Total, noncorporate private	845	65	1,979	97	2,825	113	--	--	--	--	--	--	2,825	113
All private	2,868	99	2,332	102	5,201	137	--	--	--	--	--	--	5,201	137
All owners	8,345	138	3,462	126	11,807	172	2,071	82	1,037	73	3,109	95	14,916	188

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 500 acre were estimated.

Timberland: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other Forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table A16: Area of forest land by Owner Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Owner class	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
	<i>thousand acres</i>													
USDA Forest Service:														
National Forest	127	26	370	40	498	45	141	29	160	29	301	40	799	59
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	127	26	370	40	498	45	141	29	160	29	301	40	799	59
Other federal government:														
Bureau of Land Management	--	--	33	13	33	13	--	--	19	10	19	10	51	16
Department of Defense and Energy	2	2	3	3	5	4	--	--	--	--	--	--	5	4
National Park Service	--	--	--	--	--	--	--	--	97	24	97	24	97	24
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	21	11	21	11	--	--	1	1	1	1	22	11
Total	2	2	56	17	58	18	--	--	117	26	117	26	176	31
State and local government:														
Local	--	--	18	9	18	9	--	--	4	3	4	3	22	10
State	--	--	--	--	--	--	14	9	54	18	68	20	68	20
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	18	9	18	9	14	9	58	18	72	20	90	22
Private:														
Corporate	5	5	49	18	53	18	--	--	--	--	--	--	53	18
Noncorporate private:														
Total, noncorporate private	14	9	196	31	211	33	--	--	--	--	--	--	211	33
All private	19	10	245	36	264	38	--	--	--	--	--	--	264	38
All owners	149	28	690	57	838	61	154	30	335	43	490	52	1,328	79

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 500 acre were estimated.

Timberland: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other Forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table A17: Area of Forest Land by Forest Type, Owner Group and Forest Land Status, 2010-2019: All California

Forest type group	USDA Forest Service				Other federal				State and local government				Private corporate				Private non-corporate				All owners	
	Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Total SE	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>thousand acres</i>																					
Softwoods:																						
California mixed conifer	4,063	115	1,035	67	47	17	353	40	28	13	54	17	1,699	82	5	5	432	49	--	--	7,715	164
Douglas-fir	183	29	178	30	22	11	36	14	29	12	33	14	327	41	--	--	361	44	--	--	1,168	75
Fir / spruce / mountain hemlock	1,138	75	389	47	--	--	184	32	10	8	11	8	191	32	--	--	67	20	--	--	1,990	102
Western Hemlock / Sitka spruce	--	--	--	--	--	--	1	1	1	1	1	1	21	12	--	--	3	3	--	--	27	12
Lodgepole pine	196	33	460	49	--	--	218	34	6	6	6	6	28	12	--	--	30	14	--	--	944	70
Pinyon / juniper	12	8	734	51	--	--	544	52	--	--	66	20	--	--	36	15	--	--	127	26	1,518	82
Ponderosa pine	1,238	75	217	35	19	10	57	18	3	4	17	10	552	53	4	3	256	37	1	1	2,364	107
Redwood	4	3	18	10	--	--	31	14	48	16	62	19	424	47	--	--	207	34	--	--	793	64
Western juniper	132	27	576	50	21	11	313	42	--	--	17	10	8	6	64	19	21	10	252	39	1,404	84
Western white pine	24	12	105	26	--	--	17	10	--	--	--	--	--	--	--	--	--	--	--	--	146	30
Other western softwoods	40	16	308	41	4	2	148	29	--	--	20	12	27	13	--	--	4	4	7	7	558	56
Total	7,030	112	4,022	107	112	25	1,900	80	125	25	287	37	3,277	99	108	25	1,381	81	387	47	18,628	199
Hardwoods:																						
Alder / maple	36	13	11	8	10	7	26	13	--	--	11	8	86	21	1	1	28	12	12	6	222	34
Aspen / birch	6	5	41	15	--	--	11	8	--	--	1	1	4	4	--	--	--	--	--	--	64	18
Elm / ash / cottonwood	--	--	3	4	--	--	1	1	--	--	9	6	--	--	2	2	--	--	23	10	39	13
Tanoak / laurel	188	32	255	38	17	9	52	18	13	8	142	28	462	50	20	10	545	53	95	23	1,789	93
Western oak	945	72	1,618	87	83	23	505	49	13	8	419	39	332	44	840	66	671	62	3,674	115	9,098	177
Woodland hardwoods	--	--	21	10	--	--	37	13	--	--	7	6	--	--	7	7	--	--	33	12	104	22
Exotic hardwoods	--	--	--	--	2	2	--	--	--	--	--	--	--	--	--	--	--	--	2	2	4	3
Other hardwoods	142	28	87	23	13	9	18	11	6	5	36	15	55	18	3	3	93	24	108	24	559	56
Total	1,317	83	2,036	95	126	27	649	55	32	13	625	45	938	70	873	67	1,337	82	3,946	116	11,879	195
Nonstocked	403	46	310	42	19	10	119	27	--	--	14	9	178	29			29	12	28	11	1,100	76
All forest types	8,750	106	6,367	126	257	37	2,668	88	156	28	926	52	4,393	104	981	72	2,747	105	4,361	124	31,607	192

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 500 acre were estimated.

Timberland: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table A18: Area of Forest Land by Forest Type, Owner Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Forest type group	USDA Forest Service				Other federal				State and local government				Private corporate				Private non-corporate				All owners	
	Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Total	SE
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>thousand acres</i>																					
Softwoods:																						
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	1	1	--	--	20	12	--	--	21	12
Fir / spruce / mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pinyon / juniper	--	--	41	15	--	--	34	14	--	--	1	1	--	--	9	8	--	--	39	15	124	27
Ponderosa pine	--	--	5	4	--	--	6	6	--	--	6	6	--	--	--	--	--	--	--	--	17	10
Redwood	--	--	18	10	--	--	--	--	13	9	25	12	6	6	--	--	89	23	--	--	151	29
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	--	--	--	--	--	--	--	--	--	--	16	10	--	--	--	--	--	--	16	10
Total	--	--	63	19	--	--	40	15	13	9	32	14	23	12	9	8	109	25	39	15	329	44
Hardwoods:																						
Alder / maple	--	--	--	--	--	--	--	--	--	--	4	5	--	--	--	--	--	--	5	4	9	6
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	2	--	--	1	1	3	2
Tanoak / laurel	1	1	26	12	--	--	2	2	8	7	50	17	14	9	10	6	10	7	34	14	153	29
Western oak	--	--	134	27	--	--	77	20	--	--	195	27	6	7	110	24	20	10	616	56	1,158	74
Woodland hardwoods	--	--	4	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4	2
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	2	2	2
Other hardwoods	--	--	13	8	--	--	--	--	4	4	22	12	--	--	--	--	14	9	20	10	73	21
Total	1	1	176	30	--	--	79	20	11	8	271	32	20	11	122	25	43	15	677	58	1,401	81
Nonstocked	--	--	9	8	--	--	--	--	--	--	1	2	--	--	--	--	4	4	1	1	16	9
All forest types	1	1	249	35	--	--	119	25	24	12	305	34	43	16	131	26	157	30	717	60	1,747	91

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 500 acre were estimated.

Timberland: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table A19: Area of Forest Land by Forest Type, Owner Group and Forest Land Status, 2010-2019: Central Valley

Forest type group	USDA Forest Service				Other federal				State and local government				Private corporate				Private non-corporate				All owners	
	Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Total	SE
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>thousand acres</i>																					
Softwoods:																						
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hardwoods:																						
Alder / maple	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	5	5	--	--	--	--	--	13	9	18	10	--	--
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western oak	--	--	--	--	--	1	1	--	--	4	3	--	--	5	5	--	73	20	82	21	--	--
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	1	1	--	--	9	6	--	--	5	5	--	86	22	101	23	--	--
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All forest types	--	--	--	--	--	1	1	--	--	9	6	--	--	5	5	--	86	22	101	23	--	--

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 500 acre were estimated.

Timberland: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table A20: Area of Forest Land by Forest Type, Owner Group and Forest Land Status, 2010-2019: Eastside

Forest type group	USDA Forest Service				Other federal				State and local government				Private corporate				Private non-corporate				All owners	
	Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Total	SE
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>thousand acres</i>																					
Softwoods:																						
California mixed conifer	159	28	6	6			1	1	--	--	--	--	71	20	--	--	28	14	--	--	264	38
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	73	19	30	14	--	--	--	--	--	--	5	5	2	2	--	--	7	7	--	--	116	25
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	17	10	19	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	36	14
Pinyon / juniper	6	6	314	34	--	--	278	39	--	--	--	--	--	2	2	--	--	--	15	10	614	53
Ponderosa pine	229	31	23	12	4	3	--	--	--	--	--	--	103	25	4	3	24	12	--	--	386	43
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	69	19	370	38	21	11	262	38	--	--	6	6	2	2	64	19	7	5	103	25	903	65
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	4	4	66	19	--	--	2	2	--	--	--	--	--	--	--	--	--	--	--	--	72	20
Total	557	41	828	57	25	12	542	52	--	--	10	8	177	32	69	20	66	20	118	26	2,392	98
Hardwoods:																						
Alder / maple	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aspen / birch	5	5	24	12	--	--	1	1	--	--	1	1	--	--	--	--	--	--	--	--	31	13
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western oak	3	4	2	2	--	--	9	8	--	--	--	--	4	3	1	1	--	--	--	--	19	10
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	15	9	4	4	--	--	--	--	--	--	--	--	--	--	--	--	8	7	--	--	26	12
Total	23	11	30	13	--	--	10	8	--	--	1	1	4	3	1	1	8	7	--	--	77	21
Nonstocked	50	16	32	13	--	--	23	11	--	--	--	--	53	18	--	--	13	8	8	7	179	31
All forest types	630	44	889	59	25	12	575	54	--	--	11	9	234	37	70	20	86	23	127	27	2,648	103

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 500 acre were estimated.

Timberland: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table A21: Area of Forest Land by Forest Type, Owner Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Forest type group	USDA Forest Service				Other federal				State and local government				Private corporate				Private non-corporate				All owners		
	Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Total	SE	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	
	<i>thousand acres</i>																						
Softwoods:																							
California mixed conifer	1,404	70	603	50	27	12	5	5	7	6	5	5	492	52	5	5	168	32	--	--	2,716	105	
Douglas-fir	169	29	166	30	6	5	8	7	2	2	--	--	67	19	--	--	121	26	--	--	538	52	
Fir / spruce / mountain hemlock	102	25	145	30	--	--	--	--	--	--	--	--	30	13	--	--	--	--	--	--	277	41	
Western Hemlock / Sitka spruce	--	--	--	--	--	--	1	1	--	--	--	1	1	--	--	--	--	--	--	--	2	2	
Lodgepole pine	5	6	11	8	--	--	--	--	--	--	--	--	4	3	--	--	--	--	--	--	20	11	
Pinyon / juniper	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	2	2	2	3	
Ponderosa pine	95	22	41	14	5	6	7	7	--	--	--	--	31	12	--	--	25	12	--	--	204	33	
Redwood	--	--	--	--	--	--	20	11	--	--	--	--	2	2	--	--	9	8	--	--	31	14	
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14	9	14	9	
Western white pine	13	9	34	14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	46	17	
Other western softwoods	17	10	22	11	--	--	9	8	--	--	6	6	--	--	--	--	--	--	--	7	7	61	19
Total	1,806	74	1,020	61	38	14	51	17	9	6	12	8	625	58	5	5	322	43	23	11	3,910	118	
Hardwoods:																							
Alder / maple	32	12	8	7	9	7	21	11	--	--	--	--	12	8	--	--	23	12	8	5	113	25	
Aspen / birch	--	--	2	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	3	
Elm / ash / cottonwood	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	--	--	5	3	5	3	
Tanoak / laurel	174	30	213	35	4	3	5	6	--	--	6	7	58	19	4	4	158	30	19	10	641	58	
Western oak	465	50	616	57	36	15	167	30	3	4	47	16	173	32	335	43	240	38	1,029	73	3,111	124	
Woodland hardwoods	--	--	--	--	--	--	2	2	--	--	--	--	--	--	--	--	--	--	3	2	5	2	
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Other hardwoods	60	18	32	14	8	7	5	5	--	--	--	--	28	13	--	--	22	12	17	9	172	32	
Total	730	61	870	67	57	18	201	33	3	4	53	18	271	40	339	43	444	51	1,081	73	4,050	139	
Nonstocked	81	22	96	23	4	4	5	6	--	--	--	--	24	11	--	--	8	7	3	2	222	35	
All forest types	2,617	77	1,987	79	99	24	257	37	12	7	65	20	920	70	343	44	774	66	1,107	74	8,181	156	

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 500 acre were estimated.

Timberland: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table A22: Area of Forest Land by Forest Type, Owner Group and Forest Land Status, 2010-2019: North Coast

Forest type group	USDA Forest Service				Other federal				State and local government				Private corporate				Private non-corporate				All owners	
	Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Total	SE
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>thousand acres</i>																					
Softwoods:																						
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	14	8	13	9	16	10	28	13	27	12	33	14	260	37	--	--	219	35	--	--	609	56
Fir / spruce / mountain hemlock	5	5	--	--	--	--	--	--	--	--	--	--	7	6	--	--	--	--	--	--	12	7
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	1	1	--	--	21	12	--	--	3	3	--	--	25	12
Lodgepole pine	--	--	--	--	--	--	4	4	--	--	1	1	--	--	--	--	--	--	--	--	4	4
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwood	--	--	--	--	--	--	10	8	35	14	37	15	416	47	--	--	109	25	--	--	608	56
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	--	--	--	--	1	1	--	--	14	10	1	1	--	--	4	4	--	--	21	11
Total	19	11	13	9	16	10	43	16	63	18	85	21	704	57	--	--	335	42	--	--	1,279	75
Hardwoods:																						
Alder / maple	4	5	--	--	2	1	5	6	--	--	7	7	69	19	1	1	--	--	--	--	88	22
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	--	--	--	--	13	8	45	17	5	5	77	21	353	45	6	6	369	45	29	13	897	68
Western oak	--	--	5	5	15	10	--	--	2	2	29	12	16	9	23	11	128	28	118	24	336	43
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	1	1
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	--	--	--	--	--	--	--	--	1	1	12	9	19	11	--	--	38	15	1	1	71	20
Total	4	5	5	5	29	13	50	18	8	6	126	25	457	50	30	12	535	55	149	28	1,393	83
Nonstocked	--	--	--	--	8	7	--	--	--	--	--	--	7	5	--	--	--	--	--	--	15	9
All forest types	23	12	17	11	53	17	93	23	72	19	212	29	1,168	71	30	12	870	65	149	28	2,687	98

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 500 acre were estimated.

Timberland: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table A23: Area of Forest Land by Forest Type, Owner Group and Forest Land Status, 2010-2019: Sierra Cascades

Forest type group	USDA Forest Service				Other federal				State and local government				Private corporate				Private non-corporate				All owners	
	Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Total	SE
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>thousand acres</i>																					
Softwoods:																						
California mixed conifer	2,467	92	394	44	20	11	347	40	21	11	40	15	1,136	71	--	--	236	36	--	--	4,662	133
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	952	69	215	35	--	--	184	32	10	8	7	7	153	29	--	--	60	19	--	--	1,580	91
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	173	31	411	45	--	--	214	34	6	6	6	6	24	12	--	--	30	14	--	--	863	67
Pinyon / juniper	6	5	185	31	--	--	127	26	--	--	34	15	--	--	--	--	--	--	17	9	369	45
Ponderosa pine	908	67	107	25	10	8	44	15	3	4	10	8	415	47	--	--	207	34	1	1	1,704	93
Redwood	4	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4	3
Western juniper	49	16	200	34	--	--	51	18	--	--	11	9	6	5	--	--	14	9	134	28	466	53
Western white pine	11	8	72	22	--	--	17	10	--	--	--	--	--	--	--	--	--	--	--	--	99	25
Other western softwoods	20	11	213	34	3	2	133	28	--	--	--	--	10	8	--	--	--	--	--	--	378	46
Total	4,590	96	1,796	73	33	14	1,115	63	40	16	108	24	1,744	82	--	--	548	53	153	30	10,126	161
Hardwoods:																						
Alder / maple	--	--	--	--	--	--	--	--	--	--	--	--	4	4	--	--	5	4	--	--	9	6
Aspen / birch	1	1	15	8	--	--	10	8	--	--	--	--	4	4	--	--	--	--	--	--	30	12
Elm / ash / cottonwood	--	--	3	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4	4	8	6
Tanoak / laurel	13	9	17	10	--	--	--	--	--	--	--	--	37	15	--	--	9	8	13	9	88	23
Western oak	435	49	573	50	32	15	242	37	8	7	118	25	132	29	350	45	269	40	1,722	91	3,880	131
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14	9	14	9
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	67	20	26	12	5	4	14	9	1	1	1	1	8	6	3	3	11	8	63	19	198	33
Total	516	54	633	52	37	15	265	38	9	7	119	25	186	33	353	45	293	41	1,816	92	4,227	136
Nonstocked	246	35	124	27	7	7	70	20	--	--	8	7	94	22	--	--	4	3	10	8	563	55
All forest types	5,352	94	2,554	87	77	21	1,450	69	48	17	234	36	2,023	88	353	45	845	65	1,979	97	14,916	188

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 500 acre were estimated.

Timberland: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table A24: Area of Forest Land by Forest Type, Owner Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Forest type group	USDA Forest Service				Other federal				State and local government				Private corporate				Private non-corporate				All owners		
	Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Timberland		Other forest land		Total	SE	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	
	<i>thousand acres</i>																						
Softwoods:																							
California mixed conifer	33	14	32	14	--	--	--	--	--	--	9	8	--	--	--	--	--	--	--	--	74	22	
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Fir / spruce / mountain hemlock	6	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6	6	
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Lodgepole pine	--	--	20	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	20	12	
Pinyon / juniper	--	--	193	30	--	--	105	25	--	--	31	14	--	--	25	13	--	--	--	53	17	408	47
Ponderosa pine	6	6	42	17	--	--	--	--	--	--	--	--	5	5	--	--	--	--	--	--	--	53	18
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	14	10	6	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	21	11
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	7	7	--	--	3	3	--	--	--	--	--	--	--	--	--	--	--	--	--	11	8
Total	58	18	301	40	--	--	109	25	--	--	40	16	5	5	25	13	--	--	--	53	17	592	57
Hardwoods:																							
Alder / maple	--	--	4	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4	3	
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	1		--	--	--	--	--	--	4	4	--	--	--	--	--	--	--	--	5	4	
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--	9	8	--	--	--	--	--	--	--	--	9	8	
Western oak	42	16	289	39	--	--	9	7	--	--	25	11	--	--	17	10	14	9	115	23	512	51	
Woodland hardwoods	--	--	17	9	--	--	34	13	--	--	6	6	--	--	7	7	--	--	16	9	80	20	
Exotic hardwoods	--	--	--	--	2	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	2	
Other hardwoods	--	--	11	9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6	4	17	10	
Total	42	16	322	40	2	2	43	14	--	--	45	15	--	--	24	12	14	9	137	25	630	56	
Nonstocked	27	13	48	17	--	--	21	11	--	--	4	5	--	--	--	--	--	--	6	4	106	25	
All forest types	127	26	671	56	2	2	173	31	--	--	90	22	5	5	49	18	14	9	196	31	1,328	79	

Note: Totals may be off because of rounding; data subject to sampling error; SE = standard error; -- = less than 500 acre were estimated.

Timberland: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table B1: Annual Net Change in Carbon Stocks on Forest Land for All Pools by Owner Group, 2010-2019: All California

	Public						Private				Total		Total	
	National forest		Other federal		State and local govt.		Corporate		Non Corporate		Total	SE	Total	SE
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>thousand metric tons CO2 equivalent per year</i>													
Standing Live tree														
Mortality	-28,709	1,310	-4,045	548	-1,248	230	-3,751	247	-4,794	312	-8,545	382	-42,547	1,485
Cut	-2,279	368	-49	26	-176	115	-9,252	928	-1,634	341	-10,885	978	-13,389	1,051
Gross Growth	30,296	476	3,881	225	3,207	279	17,872	574	13,772	532	31,644	585	69,028	804
Net	-692	1,357	-213	547	1,782	276	4,870	990	7,344	571	12,214	1,100	13,091	1,861
Foliage	33	69	-5	25	83	15	279	51	330	28	609	56	720	94
Roots														
Live	-16	271	-17	101	350	61	1,072	205	1,391	119	2,463	229	2,781	376
Dead	1,177	194	28	82	-30	29	12	48	130	53	142	72	1,318	225
Standing Dead	6,926	930	411	439	-115	113	383	196	816	232	1,198	304	8,421	1,077
Dead Woody Debris	704	572	412	273	47	169	-1,215	388	246	277	-969	477	194	812
Understory Vegetation														
Above Ground	-43	44	32	24	-18	6	-71	38	-63	16	-134	41	-163	65
Below Ground	-5	5	4	3	-2	1	-8	4	-7	2	-15	5	-18	7
Total (excluding soils)	8,084	1,190	653	541	2,098	353	5,321	1,315	10,188	708	15,509	1,441	26,344	1,978
Forest Floor	-122	113	-121	55	9	13	62	76	133	49	195	91	-40	156
Soils	-458	205	-68	70	-28	42	199	217	94	103	293	239	-262	326
Total (including soils and forest floor)	7,504	1,263	463	578	2,079	355	5,582	1,364	10,415	727	15,997	1,493	26,043	2,071

Table B2: Annual Net Change in Carbon Stocks on Forest Land for All Pools by Owner Group, 2001-2009 to 2011-2019: Central Coast and Interior Ranges

	Public						Private				Total		Total	
	National forest		Other federal		State and local govt.		Corporate		Non Corporate					
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>thousand metric tons CO2 equivalent per year</i>													
Standing Live tree														
Mortality	-572	245	-70	56	-386	88	-109	47	-629	108	-738	118	-1,765	291
Cut	--	--	--	--	-3	3	--	--	-131	67	-131	67	-134	67
Gross Growth	194	54	67	25	838	185	314	86	1,553	239	1,867	253	2,967	321
Net	-378	217	-2	44	450	170	204	74	794	188	998	202	1,068	346
Foliage	-12	8	1	1	21	7	4	3	27	8	31	9	41	14
Roots														
Live	-58	35	8	8	83	36	16	14	104	34	120	37	154	63
Dead	7	15	4	4	14	11	10	8	35	13	45	15	70	24
Standing Dead	48	69	12	11	37	28	44	34	204	57	248	66	345	100
Dead Woody Debris	-12	55	40	30	116	53	-10	55	196	107	186	121	330	146
Understory Vegetation														
Above Ground		1			-4	3		1		1		1	-4	3
Below Ground														
Total (excluding soils)	-404	218	63	27	717	220	267	100	1,361	276	1,628	293	2,004	428
Forest Floor	-5	5	4	2	-3	6	-1	5	19	11	18	12	14	14
Soils	-47	31	2	2	-13	28	-11	7	24	30	13	31	-44	52
Total (including soils and forest floor)	-455	221	69	28	701	216	255	99	1,404	278	1,659	295	1,974	429

Table B3: Annual Net Change in Carbon Stocks on Forest Land for All Pools by Owner Group, 2001-2009 to 2011-2019: Central Valley

	Public						Private				Total			
	National forest		Other federal		State and local govt.		Corporate		Non Corporate		Total		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>thousand metric tons CO2 equivalent per year</i>													
Standing Live tree														
Mortality					-10	10	-14	11	-32	17	-46	21	-55	23
Cut					--	--	--	--	-4	4	-4	4	-4	4
Gross Growth					8	6	45	37	66	28	110	47	119	47
Net					-1	7	31	26	30	19	61	32	60	33
Foliage							1	1		1	1	1	1	1
Roots														
Live						1	7	5	5	4	12	7	12	7
Dead					1	1	--	--	3	2	3	2	5	2
Standing Dead					5	5	--	--	14	7	14	7	19	9
Dead Woody Debris					4	3			31	20	31	20	35	20
Understory Vegetation														
Above Ground														
Below Ground														
Total (excluding soils)					10	8	38	32	83	34	122	47	131	47
Forest Floor					1	1			1	1	1	1	2	1
Soils					--	--	--	--	--	--	--	--	--	--
Total (including soils and forest floor)					10	9	39	32	84	35	123	47	133	48

Table B4: Annual Net Change in Carbon Stocks on Forest Land for All Pools by Owner Group, 2001-2009 to 2011-2019: Eastside

	Public						Private				Total		Total	
	National forest		Other federal		State and local govt.		Corporate		Non Corporate					
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>thousand metric tons CO2 equivalent per year</i>													
Standing Live tree														
Mortality	-528	92	-34	13			-207	86	-16	10	-223	86	-785	127
Cut	-129	66	--	--	--	--	-223	77	-57	27	-279	82	-408	105
Gross Growth	1,109	90	125	19	16	17	377	79	103	34	479	86	1,729	128
Net	452	113	91	19	16	16	-53	105	30	20	-23	106	536	158
Foliage	27	7	5	1	1	1	-2	6	3	1	1	6	35	9
Roots														
Live	92	25	17	4	3	3	-4	20	8	4	4	20	116	32
Dead	-34	22	-4	2	-1	1	7	8	-4	3	3	8	-37	23
Standing Dead	-116	100	-14	9	-6	7	39	37	-17	14	22	40	-115	108
Dead Woody Debris	-106	83	56	43	-6	6	-29	48	-18	20	-48	52	-103	107
Understory Vegetation														
Above Ground	-42	21	11	19			1	11	-15	10	-15	15	-46	32
Below Ground	-5	2	1	2				1	-2	1	-2	2	-5	4
Total (excluding soils)	269	169	163	54	6	5	-42	137	-15	36	-56	141	380	227
Forest Floor	27	21	-11	9	2	2	-15	15	-10	10	-25	18	-7	29
Soils	-47	40	-75	50	--	--	-25	16	-8	16	-33	23	-155	68
Total (including soils and forest floor)	249	192	77	73	8	7	-82	151	-32	47	-114	158	219	259

Table B5: Annual Net Change in Carbon Stocks on Forest Land for All Pools by Owner Group, 2001-2009 to 2011-2019: Klamath Interior Coast Ranges

	Public						Private				Total		Total	
	National forest		Other federal		State and local govt.		Corporate		Non Corporate					
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>thousand metric tons CO2 equivalent per year</i>													
Standing Live tree														
Mortality	-11,873	968	-582	196	-55	46	-1,015	144	-1,239	145	-2,254	201	-14,764	1,013
Cut	-275	111	-47	26			-1,565	399	-143	46	-1,709	401	-2,032	417
Gross Growth	11,253	323	950	174	71	32	3,406	284	3,585	301	6,992	394	19,266	536
Net	-895	955	321	187	15	48	826	453	2,203	260	3,029	516	2,470	1,121
Foliage	-41	50	16	9	2	1	37	25	99	12	136	27	113	59
Roots														
Live	-209	199	73	40	5	8	177	99	425	54	602	112	471	237
Dead	643	143	21	23		1	8	21	-8	31		37	664	150
Standing Dead	3,384	662	135	99	13	12	107	91	-10	143	97	170	3,629	690
Dead Woody Debris	-103	356	-81	145	6	15	-134	179	145	120	11	216	-168	441
Understory Vegetation														
Above Ground	-16	22	-5	3	-2	1	-4	15	-30	8	-34	17	-57	28
Below Ground	-2	2	-1					2	-3	1	-4	2	-6	3
Total (excluding soils)	2,760	751	480	185	38	40	1,016	550	2,821	351	3,836	644	7,115	1,018
Forest Floor	40	57	9	14	5	3	61	42	85	28	146	50	200	78
Soils	-140	137	13	26	1	1	42	38	83	54	125	66	-2	155
Total (including soils and forest floor)	2,660	789	502	192	44	42	1,119	587	2,989	371	4,108	685	7,314	1,075

Table B6: Annual Net Change in Carbon Stocks on Forest Land for All Pools by Owner Group, 2001-2009 to 2011-2019: North Coast

	Public						Private				Total		Total	
	National forest		Other federal		State and local govt.		Corporate		Non Corporate					
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>thousand metric tons CO2 equivalent per year</i>													
Standing Live tree														
Mortality	-55	31	-234	107	-584	208	-1,004	112	-799	107	-1,803	152	-2,676	281
Cut	--	--	-1	1	-118	104	-3,388	654	-661	291	-4,050	712	-4,169	719
Gross Growth	234	101	623	161	1,623	251	7,343	521	4,681	403	12,023	595	14,503	673
Net	180	82	387	152	921	225	2,950	693	3,221	421	6,170	786	7,658	836
Foliage	4	4	18	8	40	13	181	35	151	21	332	40	394	43
Roots														
Live	18	15	68	33	181	50	645	146	648	87	1,293	166	1,559	177
Dead	3	5	-40	24	-23	22	-8	37	-34	18	-42	41	-102	53
Standing Dead	22	17	-146	91	-118	94	135	142	-32	67	103	158	-139	206
Dead Woody Debris	-6	33	153	109	-20	146	-563	296	-163	152	-726	333	-599	381
Understory Vegetation														
Above Ground		1		1	-6	2	-33	7	-9	3	-41	8	-47	8
Below Ground					-1		-4	1	-1		-5	1	-5	1
Total (excluding soils)	220	104	440	224	975	284	3,303	988	3,780	509	7,083	1,085	8,719	1,149
Forest Floor	1	1	-1	2	-3	6	11	18	25	11	36	21	33	22
Soils					28	13	285	125	16	69	301	141	328	142
Total (including soils and forest floor)	221	105	439	224	1,000	287	3,599	997	3,821	511	7,420	1,094	9,081	1,157

Table B7: Annual Net Change in Carbon Stocks on Forest Land for All Pools by Owner Group, 2001-2009 to 2011-2019: Sierra Cascades

	Public						Private				Total		Total	
	National forest		Other federal		State and local govt.		Corporate		Non Corporate					
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>thousand metric tons CO2 equivalent per year</i>													
Standing Live tree														
Mortality	-14,671	846	-3,074	516	-182	44	-1,402	158	-1,894	233	-3,296	277	-21,223	1,025
Cut	-1,824	343	--	--	-55	51	-4,075	555	-622	160	-4,697	576	-6,576	672
Gross Growth	17,102	402	2,102	152	635	133	6,373	359	3,666	244	10,040	406	29,879	593
Net	607	914	-971	494	398	114	896	565	1,150	283	2,046	631	2,080	1,221
Foliage	84	45	-45	23	19	6	58	28	52	14	110	32	169	60
Roots														
Live	279	175	-174	88	81	22	227	110	225	61	452	126	637	234
Dead	547	126	47	75	-14	13	-4	20	136	37	131	42	711	153
Standing Dead	3,509	631	423	419	-23	37	58	88	623	157	681	180	4,590	778
Dead Woody Debris	737	429	217	195	-82	49	-484	165	24	159	-460	230	412	528
Understory Vegetation														
Above Ground	1	31	26	14	-7	5	-34	33	-10	9	-44	34	-24	49
Below Ground		3	3	2	-1	1	-4	4	-1	1	-5	4	-3	5
Total (excluding soils)	5,764	866	-475	464	372	140	712	692	2,199	334	2,911	764	8,573	1,253
Forest Floor	-118	92	-121	52	8	9	6	61	21	36	27	70	-205	128
Soils	-160	139	-6	42	-44	29	-92	172	-22	43	-114	178	-325	232
Total (including soils and forest floor)	5,485	924	-602	503	336	145	626	749	2,198	351	2,824	823	8,043	1,344

Table B8: Annual Net Change in Carbon Stocks on Forest Land for All Pools by Owner Group, 2001-2009 to 2011-2019: South Coast Mountains and Deserts

	Public						Private						Total	
	National forest		Other federal		State and local govt.		Corporate		Non Corporate		Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>thousand metric tons CO2 equivalent per year</i>													
Standing Live tree														
Mortality	-1,011	206	-51	35	-31	19	--	--	-186	73	-186	73	-1,279	223
Cut	-51	32	--	--	--	--	--	--	-16	12	-16	12	-67	34
Gross Growth	404	56	13	6	15	12	15	11	118	30	133	32	566	66
Net	-658	193	-38	33	-16	18	15	11	-83	66	-68	66	-780	207
Foliage	-30	9	-1	1		1	1	1	-3	2	-2	2	-32	9
Roots														
Live	-138	41	-8	6	-2	4	5	3	-24	16	-19	16	-167	44
Dead	12	29		6	-7	9			2	5	2	5	8	31
Standing Dead	79	126	1	23	-23	39	-1	1	35	30	34	30	92	137
Dead Woody Debris	194	81	27	22	27	38	6	5	32	41	38	41	286	101
Understory Vegetation														
Above Ground	14	6	1	1	1								16	6
Below Ground	2	1											2	1
Total (excluding soils)	-525	179	-17	31	-20	28	26	17	-42	78	-16	80	-578	201
Forest Floor	-67	25	-2	1	-1	4			-8	6	-8	6	-77	26
Soils	-64	36	-2	4	--	--	--	--	1	2	1	2	-65	36
Total (including soils and forest floor)	-656	205	-21	31	-21	28	26	17	-49	83	-23	84	-720	225

Table B 9.3 Average annual carbon (CO2e) flux in live trees from growth, harvest, mortality, 2001-2009 to 2011-2019: NATIONAL FOREST

	Standing Live																All Pools ¹		
	Gross Growth		Harvest		Fire killed		Cut and fire		Insects and disease		Natural/other		Total Mortality		Net Flux		Net Flux		
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	
	<i>Thousand Metric Tons CO2 equivalent per year</i>																		
Region 5																			
Angeles	99	27	-5	5	-197	99	--	--	--	--	-47	21	-244	101	-151	90	-115	103	
Cleveland	7	6	--	--	-12	10	--	--	--	--	--	--	-12	10	-5	10	4	11	
Eldorado	1,557	101	-275	177	-414	204	-124	107	-264	71	-408	82	-1,210	237	72	295	302	305	
Inyo	378	56	-31	28	-1	2	--	--	-38	25	-176	66	-215	71	132	74	162	155	
Klamath	2,822	135	-232	105	-2,975	699	-89	57	-406	105	-732	104	-4,202	697	-1,612	676	-236	494	
Lake Tahoe Basin	215	54	-21	23	--	--	-4	5	-57	34	-88	63	-149	71	45	59	42	86	
Lassen	2,370	129	-291	108	-1,024	357	-26	18	-303	83	-688	118	-2,040	374	38	366	617	362	
Los Padres	336	61	--	--	-784	267	--	--	-7	6	-140	39	-932	268	-596	237	-570	241	
Mendocino	1,638	115	-13	7	-1,007	350	--	--	-119	47	-452	95	-1,577	356	48	345	461	311	
Modoc	1,080	83	-108	50	-50	30	-46	41	-178	49	-223	53	-496	83	476	96	378	143	
Plumas	3,100	162	-405	193	-1,114	326	-20	22	-334	97	-681	104	-2,149	341	545	406	919	469	
San Bernardino	176	39	-46	31	-204	123	-18	17	-74	41	-132	49	-428	135	-298	136	-387	146	
Sequoia	1,213	103	-38	32	-998	263	--	--	-256	128	-618	135	-1,872	286	-697	304	-10	307	
Shasta-Trinity	5,114	210	-305	100	-2,347	468	-7	6	-320	90	-1,677	189	-4,351	475	458	504	2,325	436	
Sierra	2,209	146	-147	95	-834	353	-73	42	-718	238	-1,721	261	-3,346	459	-1,283	468	430	321	
Six Rivers	3,318	165	-36	40	-1,340	296	-11	11	-131	60	-926	150	-2,408	316	874	325	1,181	360	
Stanislaus	1,984	143	-124	83	-479	177	-7	6	-606	173	-639	182	-1,731	272	130	276	488	276	
Tahoe	2,074	134	-199	103	-79	65	--	--	-480	102	-422	83	-980	131	894	170	1,171	252	
Toiyabe	313	45	--	--	-38	23	--	--	-114	48	-91	33	-242	59	70	59	69	109	
Total	30,002	473	-2,277	368	-13,897	1,227	-423	139	-4,403	409	-9,862	499	-28,585	1,310	-860	1,355	7,230	1,259	
Region 6																			
Rogue River / Siskiyou	294	69	-2	4	-14	23	--	--	-1	2	-109	48	-124	51	168	71	274	89	
Total	294	69	-2	4	-14	23	--	--	-1	2	-109	48	-124	51	168	71	274	89	
All National Forests	30,296	476	-2,279	368	-13,911	1,227	-423	139	-4,403	409	-9,972	501	-28,709	1,310	-692	1,357	7,504	1,263	

¹ Excludes change from SOC and forest floor pools

Table B9.4: Annual Net Change in Carbon Stocks for Aboveground Pools on Forest Land by Disturbance, Forest Land Status and Owner Group, 2001-2009 to 2011-2019: Coastal Forest Practice District

	USDA Forest Service								Other Public				Private				Total				
	Timberland		Reserved		Low productive, unreserved		Total		Other federal		State and local govt.		Corporate		Non Corporate				Total		
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE			
<i>thousand metric tons CO2 equivalent per year</i>																					
Cut																					
Mortality	--	--	--	--	--	--	--	--	--	--	--	--	-96	30	-81	34	-177	45	-177	45	
Cut	--	--	--	--	--	--	--	--	--	--	--	--	-2,561	617	-418	199	-2,979	647	-2,979	647	
Gross Growth	--	--	--	--	--	--	--	--	--	--	--	--	853	181	413	147	1,266	231	1,266	231	
Net Live	--	--	--	--	--	--	--	--	--	--	--	--	-1,804	523	-86	179	-1,890	552	-1,890	552	
Standing Dead Change	--	--	--	--	--	--	--	--	--	--	--	--	-16	46	22	24	6	52	6	52	
Dead Woody Debris Change	--	--	--	--	--	--	--	--	--	--	--	--	-282	210	-34	79	-315	225	-315	225	
Total Net ¹	--	--	--	--	--	--	--	--	--	--	--	--	-2,563	774	-114	218	-2,676	804	-2,676	804	
Cut and Fire																					
Mortality	--	--	--	--	--	--	--	--	--	-16	17	-2	2	--	--	-2	2	-18	17		
Cut	--	--	--	--	--	--	--	--	--	-99	103	-61	55	--	--	-61	55	-160	117		
Gross Growth	--	--	--	--	--	--	--	--	--	50	52	13	11	--	--	13	11	63	53		
Net Live	--	--	--	--	--	--	--	--	--	-65	68	-50	46	--	--	-50	46	-115	82		
Standing Dead Change	--	--	--	--	--	--	--	--	--	-1	1	1	1	--	--	1	1	1	1		
Dead Woody Debris Change	--	--	--	--	--	--	--	--	--	11	12	10	7	--	--	10	7	22	14		
Total Net ¹	--	--	--	--	--	--	--	--	--	-65	68	-50	51	--	--	-50	51	-115	85		
Fire																					
Mortality	-228	108	-294	132	--	--	-522	171	--	--	-69	72	-63	46	-45	33	-108	57	-699	194	
Cut	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Gross Growth	93	40	140	51	--	--	233	65	--	--	24	25	60	37	58	33	118	49	375	85	
Net Live	-135	80	-154	93	--	--	-288	123	--	--	-45	47	-3	32	13	34	10	47	-324	140	
Standing Dead Change	44	36	11	49	--	--	54	60	--	--	9	9	23	23	13	8	36	24	99	66	
Dead Woody Debris Change	43	36	76	58	--	--	119	68	--	--	-22	23	-44	28	30	27	-14	39	82	82	
Total Net ¹	-92	51	-106	113	--	--	-198	124	--	--	-67	70	-18	41	63	38	45	56	-220	153	
Insect and Disease																					
Mortality	-23	20	-13	6	--	--	-36	21	-56	51	-115	69	-91	39	-198	72	-288	82	-495	120	
Cut	--	--	--	--	--	--	--	--	--	--	--	--	-11	11	-14	10	-25	15	-25	15	
Gross Growth	62	36	50	26	--	--	112	44	7	6	73	44	205	96	457	163	663	189	855	199	
Net Live	40	23	37	21	--	--	77	31	-49	44	-42	29	104	58	246	137	349	149	336	161	
Standing Dead Change	-1	1	-6	5	--	--	-7	5	9	8	-96	87	7	19	31	28	38	33	-56	94	
Dead Woody Debris Change	-6	6	-20	21	--	--	-26	22	28	25	76	78	-1	8	21	39	20	40	97	94	
Total Net ¹	35	23	23	15	--	--	58	27	-15	14	-79	111	146	85	348	143	494	166	458	202	
Other cut and weather																					
Mortality	-52	33	-9	9	--	--	-61	34	--	--	--	--	-83	56	-37	23	-121	61	-181	70	
Cut	--	--	--	--	--	--	--	--	--	--	--	--	-103	63	-47	25	-150	68	-150	68	
Gross Growth	123	63	15	13	--	--	138	64	--	--	--	--	262	109	225	92	487	142	625	156	
Net Live	71	47	6	5	--	--	77	47	--	--	--	--	76	83	141	62	217	104	294	114	
Standing Dead Change	16	14	4	4	--	--	20	14	--	--	--	--	15	7	5	4	19	8	39	17	
Dead Woody Debris Change	12	14	2	2	--	--	14	14	--	--	--	--	-35	46	33	37	-2	59	11	60	
Total Net ¹	120	64	13	11	--	--	133	65	--	--	--	--	82	123	215	95	297	155	430	168	
Less than 25% disturbed																					
Mortality	-405	102	-222	70	--	--	-627	121	-244	84	-500	203	-685	96	-780	106	-1,465	141	-2,836	287	
Cut	--	--	--	--	--	--	--	--	--	--	-3	3	-220	79	-49	32	-269	85	-272	85	
Gross Growth	1,112	175	762	154	--	--	1,873	218	806	160	1,752	302	5,077	461	4,135	380	9,212	557	13,644	689	
Net Live	706	150	540	135	--	--	1,246	194	562	122	1,249	216	4,173	409	3,306	333	7,479	494	10,536	586	
Standing Dead Change	4	58	32	34	--	--	37	67	-55	48	20	32	179	99	73	55	253	113	254	144	
Dead Woody Debris Change	-64	51	-46	50	--	--	-110	72	-73	128	-43	62	-411	209	-227	128	-638	245	-864	292	
Total Net ¹	821	176	621	162	--	--	1,441	230	540	194	1,511	269	5,052	552	3,913	410	8,965	652	12,458	766	
Total																					
Mortality	-708	150	-538	146	--	--	-1,245	207	-299	101	-701	218	-1,020	126	-1,141	136	-2,161	183	-4,406	365	
Cut	--	--	--	--	--	--	--	--	--	--	-102	103	-2,955	633	-528	204	-3,483	663	-3,585	671	
Gross Growth	1,390	185	967	156	--	--	2,357	223	813	160	1,900	292	6,471	499	5,288	428	11,759	601	16,828	723	
Net Live	682	177	429	170	--	--	1,111	239	513	129	1,097	251	2,495	680	3,620	397	6,115	762	8,837	847	
Standing Dead Change	63	69	41	60	--	--	105	91	-46	49	-68	92	209	114	144	67	352	132	343	191	
Dead Woody Debris Change	-16	65	12	85	--	--	-4	107	-45	131	22	105	-763	298	-177	163	-940	339	-968	393	
Total Net ¹	884	193	551	200	--	--	1,434	269	525	193	1,300	329	2,649	973	4,426	484	7,075	1,063	10,334	1,160	

¹ Total Net value includes change from roots and understory vegetation which are not enumerated in this table. Excludes change from SOC and forest floor pools.

Table B11: Annual Net Change in Carbon Stocks for Aboveground Pools on Timberland by Disturbance, and Owner Group, 2001-2009 to 2011-2019: All California

	USDA Forest Service		Other Public				Private				Total		Total	
			Other federal		State and local govt.		Corporate		Non Corporate					
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE		
<i>thousand metric tons CO2 equivalent per year</i>														
Cut														
Mortality	-251	77	--	--	--	--	-363	61	-189	61	-552	85	-803	115
Cut	-1,098	214	-7	6	--	--	-7,669	859	-1,034	318	-8,702	909	-9,807	934
Gross Growth	1,032	154	16	14	--	--	3,527	323	858	189	4,386	369	5,434	400
Net Live	-316	185	9	8	--	--	-4,505	723	-364	267	-4,869	768	-5,176	790
Standing Dead Change	-195	120	--	--	--	--	-23	98	57	54	35	112	-160	164
Dead Woody Debris Change	32	85	5	4	--	--	-299	243	58	114	-241	269	-205	282
Total Net ¹	-581	244	16	14	--	--	-5,875	991	-321	348	-6,196	1,048	-6,760	1,076
Cut and Fire														
Mortality	-423	139	--	--	-16	17	-387	124	-47	35	-434	129	-873	191
Cut	-733	242	--	--	-99	103	-885	334	--	--	-885	334	-1,716	426
Gross Growth	314	88	--	--	50	52	174	51	6	5	180	51	544	114
Net Live	-842	258	--	--	-65	68	-1,097	374	-41	30	-1,138	376	-2,045	461
Standing Dead Change	82	61	--	--	-1	1	44	43	-6	6	38	44	119	75
Dead Woody Debris Change	-47	35	--	--	11	12	53	74	-7	6	46	75	10	83
Total Net ¹	-985	314	--	--	-65	68	-1,242	426	-61	45	-1,302	428	-2,352	535
Fire														
Mortality	-7,300	889	-220	160	--	--	-267	83	-396	157	-663	177	-8,183	921
Cut	-187	165	--	--	--	--	-10	9	-26	19	-36	21	-223	166
Gross Growth	2,074	207	55	29	--	--	205	60	163	60	368	85	2,497	226
Net Live	-5,413	820	-165	138	--	--	-72	69	-259	135	-331	151	-5,909	846
Standing Dead Change	3,349	576	110	92	--	--	-6	58	189	84	183	102	3,642	593
Dead Woody Debris Change	-397	202	10	13	--	--	-112	42	80	50	-33	65	-420	213
Total Net ¹	-3,045	567	-57	55	--	--	-200	115	1	67	-199	133	-3,301	585
Insect and Disease														
Mortality	-3,483	357	-7	8	-54	52	-381	86	-389	109	-771	139	-4,315	386
Cut	-66	29	--	--	--	--	-39	16	-36	21	-75	26	-142	39
Gross Growth	4,259	307	6	6	36	31	956	170	865	192	1,821	255	6,122	400
Net Live	710	300	-2	2	-17	25	536	120	439	161	975	200	1,665	362
Standing Dead Change	594	256	4	5	-56	61	24	44	58	88	82	99	623	281
Dead Woody Debris Change	294	204	-6	6	73	76	-27	56	1	50	-26	75	336	230
Total Net ¹	1,895	332	-2	3	-3	19	666	148	599	178	1,265	230	3,155	404
Other cut and weather														
Mortality	-1,087	229	-33	21	-1	1	-207	73	-185	68	-392	100	-1,513	251
Cut	-124	51	-20	17	--	--	-228	74	-266	83	-494	111	-639	123
Gross Growth	1,149	170	100	48	16	16	826	171	696	170	1,522	240	2,788	298
Net Live	-62	196	47	43	15	15	391	126	245	97	637	159	636	256
Standing Dead Change	555	185	18	9	1	1	29	17	-37	36	-9	40	565	190
Dead Woody Debris Change	9	105	19	17	--	--	-207	113	40	99	-167	150	-138	184
Total Net ¹	586	162	105	56	20	20	307	171	309	151	616	228	1,327	286
Less than 25% disturbed														
Mortality	-5,692	388	-128	46	-73	27	-1,740	151	-1,468	143	-3,208	200	-9,100	440
Cut	-21	10	--	--	-3	3	-338	85	-105	41	-443	94	-467	95
Gross Growth	13,879	460	438	110	800	204	11,270	550	7,797	481	19,067	626	34,183	802
Net Live	8,166	461	310	92	724	187	9,192	501	6,224	426	15,416	579	24,616	762
Standing Dead Change	263	309	8	13	-17	13	219	143	17	131	235	194	489	366
Dead Woody Debris Change	411	331	79	47	-45	29	-705	264	-118	178	-823	318	-378	463
Total Net ¹	10,783	588	469	127	820	214	10,989	673	7,603	556	18,592	784	30,664	1,004
Total														
Mortality	-18,236	1,001	-389	167	-144	58	-3,345	236	-2,674	253	-6,019	333	-24,787	1,072
Cut	-2,229	366	-27	18	-103	103	-9,168	927	-1,467	338	-10,635	977	-12,994	1,048
Gross Growth	22,707	445	615	120	902	207	16,958	573	10,386	523	27,344	591	51,568	761
Net Live	2,243	1,070	199	173	656	205	4,445	984	6,244	539	10,690	1,079	13,787	1,555
Standing Dead Change	4,648	732	139	94	-73	62	286	193	278	189	564	271	5,279	788
Dead Woody Debris Change	302	459	108	52	40	84	-1,297	385	53	245	-1,244	456	-795	656
Total Net ¹	8,654	969	530	149	772	229	4,646	1,309	8,131	680	12,776	1,426	22,732	1,748

¹Total Net value includes change from roots and understory vegetation which are not enumerated in this table. Excludes change from SOC and forest floor pools.

Table C1: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Owner Group and Forest Land Status, 2010-2019: All California

**information duplicated in Table C9.10*

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	382,080	7,607	23,777	1,939	405,856	7,517	128,805	5,689	16,011	1,609	144,815	5,682	550,672	8,696
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	382,080	7,607	23,777	1,939	405,856	7,517	128,805	5,689	16,011	1,609	144,815	5,682	550,672	8,696
Other federal government:														
Bureau of Land Management	8,718	1,915	5,983	932	14,701	2,108	2,694	1,082	1,279	293	3,973	1,119	18,674	2,291
Department of Defense and Energy	224	188	862	272	1,086	331	--	--	122	136	122	136	1,208	358
National Park Service	--	--	--	--	--	--	54,684	5,339	6,739	1,191	61,423	5,384	61,423	5,384
U.S. Fish and Wildlife Service	--	--	--	--	--	--	27	28	15	15	42	32	42	32
Other federal	--	--	214	99	214	99	--	--	71	55	71	55	285	113
Total	8,942	1,918	7,059	971	16,001	2,123	57,405	5,312	8,226	1,220	65,631	5,343	81,632	5,226
State and local government:														
Local	3,422	1,336	1,719	401	5,141	1,395	3,680	1,575	2,951	707	6,631	1,685	11,772	2,152
State	8,547	2,245	814	418	9,361	2,288	30,212	6,223	4,524	1,240	34,736	6,314	44,097	6,200
Other public	--	--	--	--	--	--	285	342	61	53	346	346	346	346
Total	11,969	2,549	2,533	573	14,502	2,615	34,176	6,321	7,537	1,390	41,713	6,409	56,215	6,264
Private:														
Corporate	163,482	5,776	15,304	1,561	178,785	5,882	--	--	--	--	--	--	178,785	5,882
Noncorporate private:														
Total, noncorporate private	134,329	6,247	57,171	2,344	191,500	6,393	--	--	--	--	--	--	191,500	6,393
All private	297,811	6,675	72,475	2,650	370,286	6,664	--	--	--	--	--	--	370,286	6,664
All owners	700,801	10,468	105,844	3,448	806,645	10,400	220,386	9,970	31,773	2,451	252,159	10,038	1,058,805	13,276

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C2: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Owner Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	3	4	682	342	685	342	2,823	1,659	1,770	600	4,594	1,821	5,279	1,852
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	3	4	682	342	685	342	2,823	1,659	1,770	600	4,594	1,821	5,279	1,852
Other federal government:														
Bureau of Land Management	--	--	112	51	112	51	--	--	12	9	12	9	124	52
Department of Defense and Energy	--	--	672	256	672	256	--	--	--	--	--	--	672	256
National Park Service	--	--	--	--	--	--	--	--	452	327	452	327	452	327
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	784	259	784	259	--	--	464	327	464	327	1,248	417
State and local government:														
Local	--	--	571	262	571	262	3,680	1,575	1,757	512	5,437	1,629	6,008	1,640
State	2,677	1,421	96	58	2,773	1,432	5,286	2,354	1,551	468	6,837	2,394	9,610	2,775
Other public	--	--	--	--	--	--	285	342	61	53	346	346	346	346
Total	2,677	1,421	667	268	3,344	1,456	9,250	2,779	3,369	648	12,619	2,803	15,963	3,102
Private:														
Corporate	2,843	1,175	3,069	802	5,913	1,420	--	--	--	--	--	--	5,913	1,420
Noncorporate private:														
Total, noncorporate private	15,387	3,210	10,896	1,124	26,283	3,385	--	--	--	--	--	--	26,283	3,385
All private	18,231	3,413	13,965	1,354	32,196	3,647	--	--	--	--	--	--	32,196	3,647
All owners	20,911	3,739	16,099	1,443	37,010	3,984	12,073	3,236	5,603	941	17,677	3,358	54,686	5,235

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C3: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Owner Group and Forest Land Status, 2010-2019: Central Valley

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal government:														
Bureau of Land Management	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	15	15	15	15	15	15
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	15	15	15	15	15	15
State and local government:														
Local	--	--	90	79	90	79	--	--	--	--	--	--	90	79
State	--	--	--	--	--	--	--	--	146	148	146	148	146	148
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	90	79	90	79	--	--	146	148	146	148	236	167
Private:														
Corporate	--	--	120	130	120	130	--	--	--	--	--	--	120	130
Noncorporate private:														
Total, noncorporate private	--	--	1,206	431	1,206	431	--	--	--	--	--	--	1,206	431
All private	--	--	1,325	451	1,325	451	--	--	--	--	--	--	1,325	451
All owners	--	--	1,415	457	1,415	457	--	--	161	149	161	149	1,576	481

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C4: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Owner Group and Forest Land Status, 2010-2019: Eastside

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	12,354	1,169	4,159	524	16,513	1,251	2,432	1,075	1,231	388	3,663	1,142	20,175	1,686
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	12,354	1,169	4,159	524	16,513	1,251	2,432	1,075	1,231	388	3,663	1,142	20,175	1,686
Other federal government:														
Bureau of Land Management	239	115	1,628	240	1,867	259	--	--	334	142	334	142	2,201	291
Department of Defense and Energy	--	--	136	69	136	69	--	--	--	--	--	--	136	69
National Park Service	--	--	--	--	--	--	--	--	351	128	351	128	351	128
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	239	115	1,764	248	2,003	267	--	--	685	188	685	188	2,687	317
State and local government:														
Local	--	--	--	--	--	--	--	--	--	--	--	--	--	--
State	--	--	--	--	--	--	178	195	33	36	211	198	211	198
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	178	195	33	36	211	198	211	198
Private:														
Corporate	3,033	634	279	100	3,313	641	--	--	--	--	--	--	3,313	641
Noncorporate private:														
Total, noncorporate private	1,306	415	535	155	1,841	444	--	--	--	--	--	--	1,841	444
All private	4,339	756	815	184	5,154	778	--	--	--	--	--	--	5,154	778
All owners	16,933	1,417	6,737	608	23,669	1,514	2,610	1,093	1,949	433	4,559	1,175	28,228	1,907

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C5: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Owner Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	137,126	5,342	7,441	1,356	144,568	5,333	69,823	4,294	3,973	865	73,796	4,292	218,363	6,083
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	137,126	5,342	7,441	1,356	144,568	5,333	69,823	4,294	3,973	865	73,796	4,292	218,363	6,083
Other federal government:														
Bureau of Land Management	3,302	1,032	1,971	581	5,273	1,174	498	468	318	211	816	513	6,089	1,246
Department of Defense and Energy	--	--	--	--	--	--	--	--	122	136	122	136	122	136
National Park Service	--	--	--	--	--	--	9,128	3,939	657	338	9,785	3,954	9,785	3,954
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	25	18	25	18	--	--	14	16	14	16	39	25
Total	3,302	1,032	1,996	581	5,298	1,174	9,626	3,937	1,110	417	10,737	3,959	16,035	4,018
State and local government:														
Local	299	329	201	124	500	352	--	--	108	110	108	110	608	369
State	395	266	120	77	515	277	480	427	588	396	1,069	627	1,584	685
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	694	423	321	147	1,015	447	480	427	697	411	1,177	636	2,192	778
Private:														
Corporate	30,046	2,780	5,293	827	35,339	2,894	--	--	--	--	--	--	35,339	2,894
Noncorporate private:														
Total, noncorporate private	35,066	3,550	17,217	1,416	52,283	3,806	--	--	--	--	--	--	52,283	3,806
All private	65,112	4,287	22,510	1,613	87,622	4,549	--	--	--	--	--	--	87,622	4,549
All owners	206,234	6,951	32,269	2,195	238,503	7,128	79,930	5,799	5,779	1,044	85,710	5,832	324,212	8,568

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C6: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Owner Group and Forest Land Status, 2010-2019: North Coast

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	1,747	1,096	38	44	1,785	1,097	2,534	1,940	--	--	2,534	1,940	4,319	2,227
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	1,747	1,096	38	44	1,785	1,097	2,534	1,940	--	--	2,534	1,940	4,319	2,227
Other federal government:														
Bureau of Land Management	2,912	1,504	--	--	2,912	1,504	1,957	959	--	--	1,957	959	4,869	1,758
Department of Defense and Energy	221	188	--	--	221	188	--	--	--	--	--	--	221	188
National Park Service	--	--	--	--	--	--	5,819	2,637	133	100	5,952	2,638	5,952	2,638
U.S. Fish and Wildlife Service	--	--	--	--	--	--	27	28	--	--	27	28	27	28
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	3,133	1,513	--	--	3,133	1,513	7,804	2,766	133	100	7,936	2,767	11,069	3,043
State and local government:														
Local	2,179	1,188	26	32	2,206	1,188	--	--	574	300	574	300	2,780	1,225
State	4,097	1,568	6	6	4,103	1,568	20,368	6,155	1,261	1,052	21,630	6,244	25,733	6,138
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	6,276	1,893	32	32	6,309	1,893	20,368	6,155	1,835	1,093	22,204	6,251	28,513	6,141
Private:														
Corporate	68,202	5,028	819	348	69,021	5,038	--	--	--	--	--	--	69,021	5,038
Noncorporate private:														
Total, noncorporate private	54,387	4,547	4,278	985	58,666	4,580	--	--	--	--	--	--	58,666	4,580
All private	122,589	6,074	5,097	1,045	127,686	6,095	--	--	--	--	--	--	127,686	6,095
All owners	133,746	6,630	5,167	1,046	138,913	6,649	30,706	7,021	1,968	1,098	32,674	7,106	171,587	9,415

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C7: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Owner Group and Forest Land Status, 2010-2019: Sierra Cascades

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	228,059	6,074	8,929	1,198	236,988	5,998	48,712	3,331	7,594	1,114	56,306	3,306	293,293	6,760
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	228,059	6,074	8,929	1,198	236,988	5,998	48,712	3,331	7,594	1,114	56,306	3,306	293,293	6,760
Other federal government:														
Bureau of Land Management	2,265	867	2,217	706	4,482	1,123	239	227	589	159	827	277	5,309	1,154
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	39,737	3,398	4,964	1,091	44,701	3,464	44,701	3,464
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	166	96	166	96	--	--	55	52	55	52	221	109
Total	2,265	867	2,383	712	4,648	1,127	39,975	3,386	5,608	1,097	45,583	3,447	50,231	3,513
State and local government:														
Local	944	517	631	260	1,575	579	--	--	508	398	508	398	2,082	703
State	1,378	820	591	406	1,969	916	3,596	1,414	747	261	4,343	1,437	6,312	1,641
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	2,321	970	1,222	480	3,544	1,078	3,596	1,414	1,255	476	4,851	1,492	8,395	1,778
Private:														
Corporate	59,215	3,443	5,606	1,015	64,821	3,567	--	--	--	--	--	--	64,821	3,567
Noncorporate private:														
Total, noncorporate private	27,880	2,458	20,795	1,373	48,676	2,742	--	--	--	--	--	--	48,676	2,742
All private	87,095	3,952	26,402	1,668	113,497	4,197	--	--	--	--	--	--	113,497	4,197
All owners	319,741	7,325	38,936	2,207	358,676	7,430	92,283	4,954	14,457	1,634	106,740	5,001	465,416	8,728

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C8: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Owner Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	2,789	783	2,529	454	5,318	889	2,480	724	1,443	441	3,923	845	9,242	1,211
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	2,789	783	2,529	454	5,318	889	2,480	724	1,443	441	3,923	845	9,242	1,211
Other federal government:														
Bureau of Land Management	--	--	55	31	55	31	--	--	27	22	27	22	82	38
Department of Defense and Energy	3	3	54	62	58	62	--	--	--	--	--	--	58	62
National Park Service	--	--	--	--	--	--	--	--	182	69	182	69	182	69
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	23	15	23	15	--	--	2	2	2	2	25	15
Total	3	3	132	71	135	71	--	--	211	72	211	72	346	101
State and local government:														
Local	--	--	200	128	200	128	--	--	4	4	4	4	204	127
State	--	--	--	--	--	--	304	294	197	90	501	307	501	307
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	200	128	200	128	304	294	201	90	505	307	705	330
Private:														
Corporate	142	140	118	77	259	160	--	--	--	--	--	--	259	160
Noncorporate private:														
Total, noncorporate private	302	236	2,244	613	2,546	670	--	--	--	--	--	--	2,546	670
All private	444	275	2,361	618	2,805	689	--	--	--	--	--	--	2,805	689
All owners	3,237	829	5,222	780	8,458	1,133	2,785	782	1,855	456	4,640	902	13,098	1,435

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest land: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C9.1: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2001-2010

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	375,220	7,849	28,742	2,036	403,962	7,738	122,944	5,647	17,753	1,813	140,696	5,706	544,658	8,828
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	375,220	7,849	28,742	2,036	403,962	7,738	122,944	5,647	17,753	1,813	140,696	5,706	544,658	8,828
Other federal government:														
Bureau of Land Management	10,181	1,775	6,246	875	16,428	1,944	1,015	541	1,162	251	2,178	596	18,605	2,002
Department of Defense and Energy	181	173	685	234	866	290	--	--	--	--	--	--	866	290
National Park Service	--	--	--	--	--	--	54,705	5,206	6,298	1,096	61,003	5,243	61,003	5,243
U.S. Fish and Wildlife Service	--	--	--	--	--	--	85	85	2	2	87	85	87	85
Other federal	--	--	565	284	565	284	1,584	1,030	316	267	1,900	1,064	2,464	1,101
Total	10,362	1,778	7,496	943	17,858	1,972	57,389	5,190	7,778	1,137	65,167	5,221	83,025	5,173
State and local government:														
Local	1,712	949	1,735	498	3,447	1,082	2,945	1,336	2,922	676	5,867	1,447	9,314	1,794
State	5,750	1,766	598	306	6,348	1,792	27,454	6,262	4,899	1,258	32,353	6,354	38,701	6,212
Other public	--	--	21	20	21	20	274	329	55	47	328	332	349	333
Total	7,462	1,969	2,354	584	9,816	2,054	30,672	6,330	7,876	1,385	38,548	6,419	48,363	6,260
Private:														
Corporate	134,896	5,287	7,573	978	142,469	5,344	--	--	--	--	--	--	142,469	5,344
Noncorporate private:														
Total, noncorporate private	135,778	6,245	63,800	2,467	199,578	6,449	--	--	--	--	--	--	199,578	6,449
All private	270,674	6,620	71,373	2,551	342,047	6,637	--	--	--	--	--	--	342,047	6,637
All owners	663,718	10,430	109,965	3,428	773,683	10,365	211,004	9,894	33,406	2,548	244,411	9,995	1,018,094	13,227

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C9.2: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2002-2011

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	377,925	7,870	28,260	2,047	406,186	7,753	124,245	5,718	18,067	1,849	142,311	5,762	548,497	8,862
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	377,925	7,870	28,260	2,047	406,186	7,753	124,245	5,718	18,067	1,849	142,311	5,762	548,497	8,862
Other federal government:														
Bureau of Land Management	10,326	1,798	6,159	887	16,485	1,970	1,051	568	1,194	258	2,245	623	18,729	2,033
Department of Defense and Energy	200	181	682	233	882	295	--	--	--	--	--	--	882	295
National Park Service	--	--	--	--	--	--	54,869	5,167	6,344	1,104	61,214	5,204	61,214	5,204
U.S. Fish and Wildlife Service	--	--	--	--	--	--	85	85	2	2	87	85	87	85
Other federal	--	--	569	286	569	286	1,584	1,030	316	267	1,900	1,064	2,469	1,102
Total	10,526	1,801	7,410	953	17,936	1,996	57,589	5,151	7,856	1,146	65,445	5,182	83,381	5,143
State and local government:														
Local	1,653	984	1,732	500	3,385	1,113	3,118	1,402	2,995	691	6,113	1,504	9,498	1,859
State	5,800	1,773	712	404	6,513	1,817	28,192	6,213	5,074	1,268	33,267	6,308	39,779	6,160
Other public	--	--	21	20	21	20	289	338	50	46	338	341	360	342
Total	7,453	1,990	2,466	642	9,919	2,091	31,599	6,290	8,119	1,398	39,718	6,379	49,637	6,216
Private:														
Corporate	133,731	5,216	9,243	1,156	142,974	5,304	--	--	--	--	--	--	142,974	5,304
Noncorporate private:														
Total, noncorporate private	139,404	6,317	62,386	2,411	201,790	6,502	--	--	--	--	--	--	201,790	6,502
All private	273,136	6,564	71,628	2,547	344,764	6,587	--	--	--	--	--	--	344,764	6,587
All owners	669,041	10,424	109,764	3,441	778,805	10,361	213,433	9,887	34,042	2,584	247,475	9,979	1,026,279	13,234

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C9.3: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2003-2012

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	380,920	7,719	26,602	2,001	407,522	7,591	126,660	5,805	18,550	1,874	145,210	5,849	552,732	8,891
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	380,920	7,719	26,602	2,001	407,522	7,591	126,660	5,805	18,550	1,874	145,210	5,849	552,732	8,891
Other federal government:														
Bureau of Land Management	11,016	1,877	6,229	883	17,246	2,058	1,407	654	1,152	256	2,559	701	19,805	2,114
Department of Defense and Energy	200	181	689	235	890	296	--	--	132	141	132	141	1,022	328
National Park Service	--	--	--	--	--	--	55,785	5,232	6,425	1,125	62,209	5,261	62,209	5,261
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	607	290	607	290	769	688	317	267	1,086	738	1,693	793
Total	11,217	1,880	7,526	952	18,743	2,084	57,960	5,190	8,025	1,172	65,986	5,205	84,728	5,137
State and local government:														
Local	1,812	997	1,745	502	3,557	1,126	3,140	1,411	3,024	703	6,164	1,519	9,721	1,878
State	6,181	1,881	741	405	6,921	1,923	28,450	6,222	4,884	1,272	33,334	6,317	40,255	6,168
Other public	--	--	21	20	21	20	297	348	53	48	350	351	371	352
Total	7,993	2,093	2,507	644	10,500	2,188	31,887	6,300	7,961	1,403	39,848	6,387	50,348	6,222
Private:														
Corporate	134,456	5,155	9,969	1,180	144,425	5,248	--	--	--	--	--	--	144,425	5,248
Noncorporate private:														
Total, noncorporate private	140,037	6,381	61,116	2,406	201,153	6,566	--	--	--	--	--	--	201,153	6,566
All private	274,494	6,554	71,085	2,544	345,579	6,580	--	--	--	--	--	--	345,579	6,580
All owners	674,623	10,340	107,721	3,411	782,344	10,271	216,507	9,968	34,536	2,617	251,043	10,055	1,033,387	13,276

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C9.4: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2004-2013

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	383,807	7,749	26,115	2,005	409,922	7,619	127,028	5,852	18,268	1,882	145,296	5,896	555,218	8,939
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	383,807	7,749	26,115	2,005	409,922	7,619	127,028	5,852	18,268	1,882	145,296	5,896	555,218	8,939
Other federal government:														
Bureau of Land Management	11,035	1,892	6,176	883	17,211	2,071	1,639	707	1,215	262	2,853	753	20,064	2,136
Department of Defense and Energy	200	181	706	239	907	299	--	--	132	141	132	141	1,039	331
National Park Service	--	--	--	--	--	--	56,669	5,279	6,410	1,142	63,079	5,308	63,079	5,308
U.S. Fish and Wildlife Service	--	--	--	--	--	--	27	28	15	15	42	32	42	32
Other federal	--	--	421	148	421	148	--	--	81	56	81	56	502	158
Total	11,235	1,895	7,304	920	18,539	2,082	58,335	5,218	7,853	1,164	66,187	5,232	84,726	5,155
State and local government:														
Local	1,865	1,022	1,875	516	3,739	1,154	3,285	1,403	2,899	662	6,183	1,516	9,923	1,887
State	6,530	1,976	748	406	7,278	2,017	28,821	6,253	4,595	1,234	33,416	6,337	40,694	6,172
Other public	--	--	23	21	23	21	297	348	57	50	354	352	377	352
Total	8,395	2,187	2,645	655	11,040	2,281	32,402	6,328	7,551	1,352	39,953	6,406	50,994	6,218
Private:														
Corporate	138,498	5,234	10,734	1,260	149,231	5,328	--	--	--	--	--	--	149,231	5,328
Noncorporate private:														
Total, noncorporate private	142,008	6,486	60,818	2,366	202,825	6,653	--	--	--	--	--	--	202,825	6,653
All private	280,505	6,618	71,551	2,545	352,057	6,634	--	--	--	--	--	--	352,057	6,634
All owners	683,942	10,416	107,616	3,407	791,558	10,342	217,765	10,027	33,671	2,592	251,437	10,108	1,042,995	13,341

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C9.5: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2005-2014

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	385,442	7,728	26,149	2,016	411,591	7,598	129,061	5,934	18,526	1,922	147,586	5,975	559,178	8,985
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	385,442	7,728	26,149	2,016	411,591	7,598	129,061	5,934	18,526	1,922	147,586	5,975	559,178	8,985
Other federal government:														
Bureau of Land Management	11,905	2,210	6,223	891	18,128	2,368	1,873	754	1,204	262	3,077	795	21,205	2,409
Department of Defense and Energy	205	185	730	263	934	322	--	--	132	141	132	141	1,066	351
National Park Service	--	--	--	--	--	--	56,752	5,320	6,387	1,159	63,139	5,353	63,139	5,353
U.S. Fish and Wildlife Service	--	--	--	--	--	--	27	28	15	15	42	32	42	32
Other federal	--	--	437	148	437	148	--	--	81	56	81	56	519	158
Total	12,110	2,212	7,390	935	19,500	2,381	58,652	5,261	7,820	1,180	66,471	5,277	85,972	5,213
State and local government:														
Local	2,573	1,130	2,078	528	4,651	1,256	3,285	1,402	2,885	654	6,170	1,509	10,821	1,945
State	6,982	2,000	789	401	7,771	2,046	28,885	6,072	4,637	1,235	33,522	6,158	41,293	5,989
Other public	--	--	22	20	22	20	297	348	57	50	354	351	376	352
Total	9,556	2,258	2,888	662	12,444	2,357	32,467	6,150	7,579	1,349	40,046	6,228	52,491	6,053
Private:														
Corporate	140,201	5,232	11,878	1,322	152,079	5,339	--	--	--	--	--	--	152,079	5,339
Noncorporate private:														
Total, noncorporate private	140,786	6,396	60,819	2,390	201,605	6,563	--	--	--	--	--	--	201,605	6,563
All private	280,988	6,487	72,697	2,576	353,684	6,500	--	--	--	--	--	--	353,684	6,500
All owners	688,095	10,409	109,125	3,441	797,220	10,332	220,180	9,987	33,925	2,627	254,104	10,066	1,051,324	13,297

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C9.6: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2006-2015

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	386,357	7,725	25,615	2,002	411,972	7,595	129,484	5,940	16,803	1,680	146,288	5,924	558,260	8,949
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	386,357	7,725	25,615	2,002	411,972	7,595	129,484	5,940	16,803	1,680	146,288	5,924	558,260	8,949
Other federal government:														
Bureau of Land Management	11,802	2,157	6,065	910	17,867	2,324	2,637	1,055	1,316	301	3,953	1,095	21,821	2,481
Department of Defense and Energy	222	201	753	264	974	332	--	--	132	141	132	141	1,106	360
National Park Service	--	--	--	--	--	--	56,931	5,326	6,314	1,159	63,245	5,358	63,245	5,358
U.S. Fish and Wildlife Service	--	--	--	--	--	--	27	28	15	15	42	32	42	32
Other federal	--	--	439	149	439	149	--	--	81	56	81	56	520	159
Total	12,024	2,160	7,257	953	19,281	2,338	59,596	5,317	7,858	1,190	67,454	5,333	86,735	5,225
State and local government:														
Local	2,497	1,126	2,108	534	4,605	1,254	3,397	1,456	2,824	649	6,222	1,552	10,827	1,977
State	8,358	2,255	620	380	8,978	2,292	29,269	6,090	4,662	1,255	33,931	6,178	42,909	6,096
Other public	--	--	23	21	23	21	297	348	58	50	355	351	378	352
Total	10,855	2,475	2,751	656	13,606	2,564	32,963	6,178	7,544	1,364	40,507	6,256	54,114	6,160
Private:														
Corporate	146,646	5,405	13,175	1,403	159,821	5,528	--	--	--	--	--	--	159,821	5,528
Noncorporate private:														
Total, noncorporate private	138,730	6,339	59,675	2,391	198,405	6,508	--	--	--	--	--	--	198,405	6,508
All private	285,377	6,519	72,849	2,602	358,226	6,535	--	--	--	--	--	--	358,226	6,535
All owners	694,612	10,440	108,473	3,455	803,085	10,366	222,043	10,035	32,206	2,469	254,249	10,081	1,057,334	13,320

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C9.7: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2007-2016

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	385,707	7,719	24,957	1,983	410,664	7,580	130,623	5,875	16,541	1,648	147,165	5,860	557,829	8,946
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	385,707	7,719	24,957	1,983	410,664	7,580	130,623	5,875	16,541	1,648	147,165	5,860	557,829	8,946
Other federal government:														
Bureau of Land Management	11,011	2,107	6,104	916	17,115	2,282	3,013	1,112	1,305	299	4,318	1,150	21,433	2,463
Department of Defense and Energy	247	202	771	265	1,018	333	--	--	132	141	132	141	1,150	362
National Park Service	--	--	--	--	--	--	56,843	5,351	6,364	1,163	63,206	5,383	63,206	5,383
U.S. Fish and Wildlife Service	--	--	--	--	--	--	27	28	15	15	42	32	42	32
Other federal	--	--	388	144	388	144	--	--	84	58	84	58	472	155
Total	11,258	2,111	7,263	958	18,521	2,297	59,882	5,315	7,900	1,194	67,783	5,331	86,304	5,228
State and local government:														
Local	3,521	1,362	2,144	535	5,665	1,460	3,529	1,526	2,849	653	6,379	1,621	12,044	2,147
State	8,046	2,172	716	398	8,762	2,214	29,671	6,175	4,702	1,268	34,374	6,263	43,135	6,162
Other public	--	--	23	21	23	21	297	348	58	50	355	352	378	352
Total	11,566	2,514	2,884	662	14,450	2,597	33,498	6,265	7,609	1,378	41,107	6,344	55,557	6,259
Private:														
Corporate	153,285	5,543	14,010	1,435	167,295	5,663	--	--	--	--	--	--	167,295	5,663
Noncorporate private:														
Total, noncorporate private	135,720	6,381	59,508	2,415	195,229	6,562	--	--	--	--	--	--	195,229	6,562
All private	289,005	6,601	73,518	2,624	362,523	6,617	--	--	--	--	--	--	362,523	6,617
All owners	697,537	10,492	108,622	3,463	806,159	10,412	224,004	10,050	32,051	2,457	256,054	10,097	1,062,213	13,409

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C9.8: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2008-2017

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	384,122	7,689	25,228	2,025	409,350	7,556	129,820	5,689	16,159	1,625	145,979	5,687	555,329	8,813
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	384,122	7,689	25,228	2,025	409,350	7,556	129,820	5,689	16,159	1,625	145,979	5,687	555,329	8,813
Other federal government:														
Bureau of Land Management	11,021	2,114	6,033	915	17,054	2,288	2,997	1,110	1,311	299	4,308	1,148	21,362	2,467
Department of Defense and Energy	247	202	767	264	1,014	332	--	--	122	136	122	136	1,136	359
National Park Service	--	--	--	--	--	--	55,206	5,299	6,397	1,170	61,604	5,337	61,604	5,337
U.S. Fish and Wildlife Service	--	--	--	--	--	--	27	28	15	15	42	32	42	32
Other federal	--	--	337	142	337	142	--	--	74	57	74	57	411	153
Total	11,267	2,117	7,138	956	18,405	2,302	58,230	5,270	7,920	1,201	66,151	5,292	84,556	5,196
State and local government:														
Local	3,421	1,340	2,108	534	5,529	1,431	3,649	1,581	2,645	598	6,294	1,659	11,823	2,155
State	8,113	2,208	707	389	8,819	2,247	29,686	6,185	4,419	1,237	34,105	6,275	42,925	6,194
Other public	--	--	23	21	23	21	301	353	61	53	362	357	385	357
Total	11,534	2,531	2,838	657	14,372	2,609	33,637	6,288	7,125	1,332	40,761	6,367	55,133	6,266
Private:														
Corporate	159,279	5,602	14,971	1,499	174,250	5,724	--	--	--	--	--	--	174,250	5,724
Noncorporate private:														
Total, noncorporate private	133,140	6,341	58,341	2,386	191,480	6,520	--	--	--	--	--	--	191,480	6,520
All private	292,418	6,608	73,312	2,635	365,730	6,618	--	--	--	--	--	--	365,730	6,618
All owners	699,341	10,473	108,516	3,494	807,857	10,392	221,687	9,932	31,203	2,420	252,891	9,992	1,060,748	13,306

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C9.9: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2009-2018

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	382,787	7,640	25,102	2,009	407,889	7,515	128,724	5,715	16,174	1,616	144,899	5,705	552,787	8,727
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	382,787	7,640	25,102	2,009	407,889	7,515	128,724	5,715	16,174	1,616	144,899	5,705	552,787	8,727
Other federal government:														
Bureau of Land Management	9,627	2,008	6,257	945	15,884	2,193	2,835	1,095	1,294	296	4,128	1,133	20,012	2,372
Department of Defense and Energy	227	191	820	271	1,047	331	--	--	122	136	122	136	1,169	358
National Park Service	--	--	--	--	--	--	55,091	5,298	6,564	1,178	61,655	5,339	61,655	5,339
U.S. Fish and Wildlife Service	--	--	--	--	--	--	27	28	15	15	42	32	42	32
Other federal	--	--	261	111	261	111	--	--	73	56	73	56	334	124
Total	9,854	2,011	7,337	984	17,192	2,208	57,953	5,273	8,068	1,208	66,021	5,300	83,212	5,159
State and local government:														
Local	3,414	1,337	1,736	407	5,150	1,397	3,672	1,573	2,959	707	6,631	1,683	11,780	2,152
State	8,565	2,241	772	401	9,337	2,282	29,733	6,186	4,391	1,235	34,124	6,276	43,461	6,166
Other public	--	--	--	--	--	--	285	342	61	53	346	346	346	346
Total	11,979	2,546	2,508	567	14,487	2,611	33,689	6,286	7,411	1,386	41,100	6,374	55,587	6,234
Private:														
Corporate	163,619	5,827	15,145	1,548	178,764	5,942	--	--	--	--	--	--	178,764	5,942
Noncorporate private:														
Total, noncorporate private	131,921	6,172	57,940	2,364	189,860	6,335	--	--	--	--	--	--	189,860	6,335
All private	295,540	6,627	73,085	2,651	368,624	6,624	--	--	--	--	--	--	368,624	6,624
All owners	700,160	10,472	108,032	3,489	808,192	10,384	220,367	9,948	31,653	2,448	252,020	10,011	1,060,211	13,262

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C9.10: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2010-2019

*information duplicated in Table C1

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	382,080	7,607	23,777	1,939	405,856	7,517	128,805	5,689	16,011	1,609	144,815	5,682	550,672	8,696
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	382,080	7,607	23,777	1,939	405,856	7,517	128,805	5,689	16,011	1,609	144,815	5,682	550,672	8,696
Other federal government:														
Bureau of Land Management	8,718	1,915	5,983	932	14,701	2,108	2,694	1,082	1,279	293	3,973	1,119	18,674	2,291
Department of Defense and Energy	224	188	862	272	1,086	331	--	--	122	136	122	136	1,208	358
National Park Service	--	--	--	--	--	--	54,684	5,339	6,739	1,191	61,423	5,384	61,423	5,384
U.S. Fish and Wildlife Service	--	--	--	--	--	--	27	28	15	15	42	32	42	32
Other federal	--	--	214	99	214	99	--	--	71	55	71	55	285	113
Total	8,942	1,918	7,059	971	16,001	2,123	57,405	5,312	8,226	1,220	65,631	5,343	81,632	5,226
State and local government:														
Local	3,422	1,336	1,719	401	5,141	1,395	3,680	1,575	2,951	707	6,631	1,685	11,772	2,152
State	8,547	2,245	814	418	9,361	2,288	30,212	6,223	4,524	1,240	34,736	6,314	44,097	6,200
Other public	--	--	--	--	--	--	285	342	61	53	346	346	346	346
Total	11,969	2,549	2,533	573	14,502	2,615	34,176	6,321	7,537	1,390	41,713	6,409	56,215	6,264
Private:														
Corporate	163,482	5,776	15,304	1,561	178,785	5,882	--	--	--	--	--	--	178,785	5,882
Noncorporate private:														
Total, noncorporate private	134,329	6,247	57,171	2,344	191,500	6,393	--	--	--	--	--	--	191,500	6,393
All private	297,811	6,675	72,475	2,650	370,286	6,664	--	--	--	--	--	--	370,286	6,664
All owners	700,801	10,468	105,844	3,448	806,645	10,400	220,386	9,970	31,773	2,451	252,159	10,038	1,058,805	13,276

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C10: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, 2010-2019: All California

*information duplicated in Table C18.10

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	44,861	2,069	3,021	455	47,882	2,098	19,670	1,485	2,408	378	22,078	1,513	69,960	2,562
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	44,861	2,069	3,021	455	47,882	2,098	19,670	1,485	2,408	378	22,078	1,513	69,960	2,562
Other federal government:														
Bureau of Land Management	553	275	273	67	826	283	140	83	98	29	238	88	1,064	296
Department of Defense and Energy	16	15	18	9	34	17	--	--	--	--	--	--	34	17
National Park Service	--	--	--	--	--	--	8,551	1,161	574	137	9,125	1,165	9,125	1,165
U.S. Fish and Wildlife Service	--	--	--	--	--	--	8	8	--	--	8	8	8	8
Other federal	9	10	65	47	74	48	--	--	1	1	1	1	74	48
Total	578	276	356	82	934	288	8,699	1,158	672	139	9,371	1,163	10,306	1,173
State and local government:														
Local	184	85	58	22	243	88	154	83	112	47	266	94	508	127
State	290	149	29	16	319	150	992	190	235	82	1,227	205	1,546	234
Other public	--	--	--	--	--	--	2	2	--	--	2	2	2	2
Total	474	171	87	27	562	173	1,148	203	346	94	1,494	221	2,055	255
Private:														
Corporate	8,279	626	574	90	8,852	631	--	--	--	--	--	--	8,852	631
Noncorporate private:														
Total, noncorporate private	5,029	466	2,830	295	7,859	545	--	--	--	--	--	--	7,859	545
All private	13,308	752	3,403	306	16,711	801	--	--	--	--	--	--	16,711	801
All owners	59,221	2,225	6,868	554	66,089	2,270	29,517	1,894	3,426	414	32,943	1,921	99,032	2,930

Note: Totals may be off because of rounding

Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C11: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	3	4	58	23	61	23	21	14	537	281	557	282	619	283
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	3	4	58	23	61	23	21	14	537	281	557	282	619	283
Other federal government:														
Bureau of Land Management	--	--	4	3	4	3	--	--	--	--	--	--	4	3
Department of Defense and Energy	--	--	9	7	9	7	--	--	--	--	--	--	9	7
National Park Service	--	--	--	--	--	--	--	--	37	32	37	32	37	32
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	14	8	14	8	--	--	37	32	37	32	50	33
State and local government:														
Local	--	--	27	19	27	19	154	83	60	41	213	92	241	93
State	29	19	1	1	30	19	66	33	66	41	132	52	162	55
Other public	--	--	--	--	--	--	2	2	--	--	2	2	2	2
Total	29	19	28	19	57	26	221	88	126	57	347	104	404	107
Private:														
Corporate	186	121	95	41	282	128	--	--	--	--	--	--	282	128
Noncorporate private:														
Total, noncorporate private	467	138	559	124	1,026	185	--	--	--	--	--	--	1,026	185
All private	653	183	655	131	1,308	225	--	--	--	--	--	--	1,308	225
All owners	686	184	755	135	1,440	228	242	89	700	289	942	302	2,382	378

Note: Totals may be off because of rounding

Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C12: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, 2010-2019: Central Valley

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal government:														
Bureau of Land Management	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
State and local government:														
Local	--	--	10	9	10	9	--	--	--	--	--	--	10	9
State	--	--	--	--	--	--	--	--	11	12	11	12	11	12
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	10	9	10	9	--	--	11	12	11	12	21	15
Private:														
Corporate	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Noncorporate private:														
Total, noncorporate private	--	--	40	19	40	19	--	--	--	--	--	--	40	19
All private	--	--	40	19	40	19	--	--	--	--	--	--	40	19
All owners	--	--	49	22	49	22	--	--	11	12	11	12	61	24

Note: Totals may be off because of rounding

Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C13: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, 2010-2019: Eastside

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	973	180	309	117	1,282	215	134	54	101	39	235	66	1,517	225
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	973	180	309	117	1,282	215	134	54	101	39	235	66	1,517	225
Other federal government:														
Bureau of Land Management	6	4	61	27	66	27	--	--	19	10	19	10	86	29
Department of Defense and Energy	--	--	9	5	9	5	--	--	--	--	--	--	9	5
National Park Service	--	--	--	--	--	--	--	--	6	3	6	3	6	3
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	6	4	69	27	75	28	--	--	25	10	25	10	101	29
State and local government:														
Local	--	--	--	--	--	--	--	--	--	--	--	--	--	--
State	--	--	--	--	--	--	40	44	--	--	40	44	40	44
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	40	44	--	--	40	44	40	44
Private:														
Corporate	200	92	1	1	201	92	--	--	--	--	--	--	201	92
Noncorporate private:														
Total, noncorporate private	46	18	11	9	57	20	--	--	--	--	--	--	57	20
All private	246	94	11	9	258	95	--	--	--	--	--	--	258	95
All owners	1,225	203	390	120	1,615	237	174	69	126	40	300	80	1,915	250

Note: Totals may be off because of rounding

Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C14: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	16,671	1,416	821	251	17,492	1,430	11,214	1,163	454	139	11,668	1,167	29,161	1,831
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	16,671	1,416	821	251	17,492	1,430	11,214	1,163	454	139	11,668	1,167	29,161	1,831
Other federal government:														
Bureau of Land Management	462	273	37	16	498	274	7	6	--	--	7	6	505	274
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	302	119	12	10	314	120	314	120
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	9	10	--	--	9	10	--	--	1	1	1	1	10	10
Total	470	274	37	16	507	274	309	119	13	10	322	119	829	297
State and local government:														
Local	2	2	--	--	2	2	--	--	14	15	14	15	15	15
State	19	25	8	6	27	26	4	4	56	43	60	43	87	50
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	20	25	8	6	28	26	4	4	70	45	74	45	103	52
Private:														
Corporate	1,503	253	156	47	1,659	257	--	--	--	--	--	--	1,659	257
Noncorporate private:														
Total, noncorporate private	1,322	224	552	82	1,874	240	--	--	--	--	--	--	1,874	240
All private	2,825	335	708	94	3,533	348	--	--	--	--	--	--	3,533	348
All owners	19,987	1,483	1,574	268	21,561	1,499	11,527	1,169	537	147	12,064	1,174	33,625	1,889

Note: Totals may be off because of rounding

Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C15: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, 2010-2019: North Coast

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	117	71	6	7	123	71	112	90	--	--	112	90	235	114
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	117	71	6	7	123	71	112	90	--	--	112	90	235	114
Other federal government:														
Bureau of Land Management	29	22	--	--	29	22	114	80	--	--	114	80	143	83
Department of Defense and Energy	16	15	--	--	16	15	--	--	--	--	--	--	16	15
National Park Service	--	--	--	--	--	--	390	239	--	--	390	239	390	239
U.S. Fish and Wildlife Service	--	--	--	--	--	--	8	8	--	--	8	8	8	8
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	45	27	--	--	45	27	511	252	--	--	511	252	556	253
State and local government:														
Local	133	80	--	--	133	80	--	--	9	6	9	6	141	80
State	90	40	4	4	94	40	641	183	13	12	654	183	748	180
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	223	88	4	4	227	88	641	183	21	13	662	183	889	192
Private:														
Corporate	3,710	493	37	19	3,747	493	--	--	--	--	--	--	3,747	493
Noncorporate private:														
Total, noncorporate private	1,387	201	90	32	1,477	203	--	--	--	--	--	--	1,477	203
All private	5,098	523	127	37	5,224	524	--	--	--	--	--	--	5,224	524
All owners	5,482	536	137	38	5,619	536	1,264	324	21	13	1,286	324	6,905	623

Note: Totals may be off because of rounding

Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C16: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, 2010-2019: Sierra Cascades

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	26,455	1,507	1,431	349	27,886	1,531	7,695	929	1,115	199	8,811	938	36,697	1,778
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	26,455	1,507	1,431	349	27,886	1,531	7,695	929	1,115	199	8,811	938	36,697	1,778
Other federal government:														
Bureau of Land Management	57	31	166	59	222	68	20	22	73	27	92	35	315	76
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	7,860	1,149	484	133	8,343	1,153	8,343	1,153
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	14	9	14	9	--	--	--	--	--	--	14	9
Total	57	31	180	60	236	68	7,879	1,149	556	134	8,436	1,153	8,672	1,153
State and local government:														
Local	50	30	15	7	66	30	--	--	12	10	12	10	77	32
State	152	143	16	14	168	143	197	72	29	19	225	75	393	158
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	202	146	32	15	234	147	197	72	40	21	237	75	471	161
Private:														
Corporate	2,679	302	257	57	2,936	307	--	--	--	--	--	--	2,936	307
Noncorporate private:														
Total, noncorporate private	1,745	342	1,357	246	3,102	418	--	--	--	--	--	--	3,102	418
All private	4,424	448	1,614	252	6,038	509	--	--	--	--	--	--	6,038	509
All owners	31,138	1,579	3,256	434	34,394	1,621	15,771	1,479	1,712	241	17,483	1,488	51,877	2,176

Note: Totals may be off because of rounding

Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C17: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	642	247	396	93	1,037	260	493	179	201	73	694	192	1,731	321
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	642	247	396	93	1,037	260	493	179	201	73	694	192	1,731	321
Other federal government:														
Bureau of Land Management	--	--	6	3	6	3	--	--	6	4	6	4	12	5
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	--	--	35	13	35	13	35	13
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	51	46	51	46	--	--	--	--	--	--	51	46
Total	--	--	57	46	57	46	--	--	41	14	41	14	98	48
State and local government:														
Local	--	--	6	6	6	6	--	--	18	16	18	16	24	17
State	--	--	--	--	--	--	45	34	59	52	104	61	104	61
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	6	6	6	6	45	34	77	54	122	63	128	63
Private:														
Corporate	--	--	27	24	27	24	--	--	--	--	--	--	27	24
Noncorporate private:														
Total, noncorporate private	61	43	222	73	283	86	--	--	--	--	--	--	283	86
All private	61	43	249	77	311	89	--	--	--	--	--	--	311	89
All owners	703	250	708	129	1,411	279	538	182	319	92	856	202	2,267	344

Note: Totals may be off because of rounding

Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C18.1: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2001-2010

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	34,114	1,664	2,483	299	36,598	1,677	14,666	1,075	1,924	313	16,590	1,102	53,188	1,968
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	34,114	1,664	2,483	299	36,598	1,677	14,666	1,075	1,924	313	16,590	1,102	53,188	1,968
Other federal government:														
Bureau of Land Management	556	203	414	72	970	216	114	113	169	71	283	133	1,253	249
Department of Defense and Energy	--	--	17	9	17	9	--	--	--	--	--	--	17	9
National Park Service	--	--	--	--	--	--	7,628	939	670	168	8,298	946	8,298	946
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	7	5	7	5	169	143	8	8	177	144	184	144
Total	556	203	438	73	993	216	7,911	944	847	181	8,758	953	9,751	960
State and local government:														
Local	183	135	30	15	213	136	138	79	58	32	197	85	410	160
State	282	159	22	12	303	160	1,298	311	188	73	1,486	316	1,789	340
Other public	--	--	--	--	--	--	2	2	1	1	3	2	3	2
Total	465	209	51	20	516	209	1,437	319	248	79	1,685	324	2,201	362
Private:														
Corporate	6,865	616	175	39	7,040	617	--	--	--	--	--	--	7,040	617
Noncorporate private:														
Total, noncorporate private	5,044	523	1,899	237	6,943	572	--	--	--	--	--	--	6,943	572
All private	11,909	783	2,074	240	13,983	815	--	--	--	--	--	--	13,983	815
All owners	47,044	1,859	5,046	391	52,090	1,886	24,014	1,466	3,019	370	27,033	1,492	79,123	2,355

Note: Totals may be off because of rounding

Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C18.2: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2002-2011

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	35,495	1,701	2,475	305	37,971	1,713	14,928	1,090	2,013	335	16,942	1,121	54,912	2,009
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	35,495	1,701	2,475	305	37,971	1,713	14,928	1,090	2,013	335	16,942	1,121	54,912	2,009
Other federal government:														
Bureau of Land Management	563	205	394	66	957	215	116	113	138	58	254	127	1,211	245
Department of Defense and Energy	--	--	17	9	17	9	--	--	--	--	--	--	17	9
National Park Service	--	--	--	--	--	--	7,563	936	674	168	8,237	943	8,237	943
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	7	5	7	5	169	144	8	8	177	144	184	144
Total	563	205	418	67	981	215	7,848	941	820	177	8,668	950	9,649	956
State and local government:														
Local	62	35	30	15	92	38	148	81	60	32	207	86	299	94
State	282	159	22	12	304	160	1,374	312	220	86	1,594	319	1,898	341
Other public	--	--	--	--	--	--	2	2	1	1	3	2	3	2
Total	345	163	52	19	396	164	1,523	320	281	91	1,804	328	2,201	348
Private:														
Corporate	7,035	613	239	52	7,274	614	--	--	--	--	--	--	7,274	614
Noncorporate private:														
Total, noncorporate private	5,182	532	1,729	180	6,911	560	--	--	--	--	--	--	6,911	560
All private	12,217	786	1,968	187	14,185	804	--	--	--	--	--	--	14,185	804
All owners	48,620	1,889	4,913	364	53,533	1,909	24,300	1,475	3,114	389	27,414	1,504	80,947	2,381

Note: Totals may be off because of rounding

Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C18.3: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2003-2012

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	36,261	1,753	2,378	292	38,639	1,765	15,082	1,085	2,082	337	17,164	1,115	55,803	2,050
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	36,261	1,753	2,378	292	38,639	1,765	15,082	1,085	2,082	337	17,164	1,115	55,803	2,050
Other federal government:														
Bureau of Land Management	557	205	408	68	965	216	133	114	139	58	272	128	1,236	246
Department of Defense and Energy	--	--	17	10	17	10	--	--	--	--	--	--	17	10
National Park Service	--	--	--	--	--	--	7,450	924	692	171	8,142	931	8,142	931
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	54	46	54	46	163	145	8	8	171	146	225	153
Total	557	205	480	82	1,036	221	7,746	930	839	180	8,584	938	9,621	946
State and local government:														
Local	68	35	30	15	98	38	148	81	62	33	210	87	308	95
State	298	160	23	12	320	161	1,402	309	248	93	1,651	319	1,971	340
Other public	--	--	--	--	--	--	2	2	2	1	3	2	3	2
Total	366	164	52	19	418	165	1,552	317	312	98	1,864	328	2,282	347
Private:														
Corporate	7,254	627	230	51	7,484	629	--	--	--	--	--	--	7,484	629
Noncorporate private:														
Total, noncorporate private	5,021	503	1,691	175	6,712	530	--	--	--	--	--	--	6,712	530
All private	12,274	778	1,921	181	14,196	796	--	--	--	--	--	--	14,196	796
All owners	49,458	1,934	4,831	354	54,289	1,953	24,380	1,463	3,233	395	27,613	1,493	81,902	2,408

Note: Totals may be off because of rounding

Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C18.4: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2004-2013

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	36,301	1,760	2,328	286	38,629	1,770	15,491	1,148	2,206	347	17,697	1,177	56,326	2,088
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	36,301	1,760	2,328	286	38,629	1,770	15,491	1,148	2,206	347	17,697	1,177	56,326	2,088
Other federal government:														
Bureau of Land Management	557	205	374	65	931	215	135	114	144	58	280	128	1,211	245
Department of Defense and Energy	--	--	16	9	16	9	--	--	--	--	--	--	16	9
National Park Service	--	--	--	--	--	--	7,746	949	690	171	8,436	955	8,436	955
U.S. Fish and Wildlife Service	--	--	--	--	--	--	8	8	--	--	8	8	8	8
Other federal	--	--	54	46	54	46	--	--	1	1	1	1	55	46
Total	557	205	444	80	1,001	220	7,889	950	835	180	8,724	957	9,725	965
State and local government:														
Local	68	35	30	15	98	38	145	80	72	36	217	88	315	96
State	265	146	23	12	287	146	1,278	292	218	89	1,496	301	1,783	321
Other public	--	--	--	--	--	--	2	2	2	1	3	2	3	2
Total	333	150	53	19	385	151	1,425	300	292	95	1,716	311	2,102	329
Private:														
Corporate	7,343	631	253	53	7,596	632	--	--	--	--	--	--	7,596	632
Noncorporate private:														
Total, noncorporate private	4,504	400	1,780	178	6,284	435	--	--	--	--	--	--	6,284	435
All private	11,847	719	2,033	185	13,880	739	--	--	--	--	--	--	13,880	739
All owners	49,038	1,916	4,858	350	53,896	1,934	24,805	1,520	3,332	402	28,137	1,548	82,033	2,427

Note: Totals may be off because of rounding

Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C18.5: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2005-2014

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	36,975	1,829	2,112	252	39,086	1,834	15,731	1,136	2,145	339	17,876	1,163	56,962	2,157
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	36,975	1,829	2,112	252	39,086	1,834	15,731	1,136	2,145	339	17,876	1,163	56,962	2,157
Other federal government:														
Bureau of Land Management	549	201	351	62	901	210	134	112	88	28	222	115	1,122	235
Department of Defense and Energy	--	--	16	9	16	9	--	--	--	--	--	--	16	9
National Park Service	--	--	--	--	--	--	7,809	954	636	163	8,446	959	8,446	959
U.S. Fish and Wildlife Service	--	--	--	--	--	--	8	8	--	--	8	8	8	8
Other federal	--	--	54	46	54	46	--	--	1	1	1	1	55	46
Total	549	201	422	78	971	215	7,950	955	725	165	8,676	960	9,647	967
State and local government:														
Local	95	42	42	18	138	45	145	80	70	36	215	88	353	99
State	270	147	23	12	292	148	1,309	295	235	90	1,545	304	1,837	323
Other public	--	--	--	--	--	--	2	2	2	1	3	2	3	2
Total	365	153	65	22	430	155	1,456	303	307	97	1,763	314	2,193	332
Private:														
Corporate	7,639	651	233	51	7,873	652	--	--	--	--	--	--	7,873	652
Noncorporate private:														
Total, noncorporate private	4,415	389	1,764	175	6,180	424	--	--	--	--	--	--	6,180	424
All private	12,054	730	1,998	182	14,052	748	--	--	--	--	--	--	14,052	748
All owners	49,944	1,983	4,596	320	54,539	1,996	25,138	1,514	3,177	389	28,315	1,539	82,854	2,491

Note: Totals may be off because of rounding

Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C18.6: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2006-2015

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	37,455	1,844	2,253	284	39,708	1,851	16,756	1,203	2,148	342	18,904	1,228	58,612	2,206
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	37,455	1,844	2,253	284	39,708	1,851	16,756	1,203	2,148	342	18,904	1,228	58,612	2,206
Other federal government:														
Bureau of Land Management	540	201	326	61	866	210	155	114	92	30	247	117	1,113	236
Department of Defense and Energy	--	--	16	9	16	9	--	--	--	--	--	--	16	9
National Park Service	--	--	--	--	--	--	7,945	972	659	166	8,604	977	8,604	977
U.S. Fish and Wildlife Service	--	--	--	--	--	--	8	8	--	--	8	8	8	8
Other federal	--	--	54	46	54	46	--	--	1	1	1	1	55	46
Total	540	201	396	77	936	215	8,108	973	753	168	8,860	979	9,796	984
State and local government:														
Local	94	42	44	18	138	45	146	80	78	36	223	88	361	99
State	284	148	24	12	308	148	1,319	295	260	97	1,579	306	1,888	325
Other public	--	--	--	--	--	--	2	2	2	1	3	2	3	2
Total	379	153	68	22	446	155	1,466	303	340	103	1,806	316	2,252	334
Private:														
Corporate	7,800	630	342	66	8,142	633	--	--	--	--	--	--	8,142	633
Noncorporate private:														
Total, noncorporate private	4,541	401	1,869	183	6,410	437	--	--	--	--	--	--	6,410	437
All private	12,341	717	2,212	194	14,552	738	--	--	--	--	--	--	14,552	738
All owners	50,715	1,992	4,929	353	55,643	2,008	26,330	1,577	3,240	394	29,570	1,601	85,213	2,536

Note: Totals may be off because of rounding

Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C18.7: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2007-2016

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	38,810	1,923	2,260	296	41,070	1,932	17,859	1,347	2,409	359	20,268	1,368	61,338	2,353
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	38,810	1,923	2,260	296	41,070	1,932	17,859	1,347	2,409	359	20,268	1,368	61,338	2,353
Other federal government:														
Bureau of Land Management	344	92	305	59	650	110	242	135	92	30	334	138	983	175
Department of Defense and Energy	--	--	17	9	17	9	--	--	--	--	--	--	17	9
National Park Service	--	--	--	--	--	--	7,762	863	611	142	8,373	868	8,373	868
U.S. Fish and Wildlife Service	--	--	--	--	--	--	8	8	--	--	8	8	8	8
Other federal	--	--	65	47	65	47	--	--	1	1	1	1	66	47
Total	344	92	388	76	732	120	8,012	863	704	144	8,715	868	9,447	865
State and local government:														
Local	160	69	45	18	204	72	157	87	107	49	264	99	468	120
State	282	148	32	18	314	149	1,181	260	272	99	1,453	274	1,767	295
Other public	--	--	--	--	--	--	2	2	2	1	3	2	3	2
Total	442	163	76	25	518	165	1,340	271	381	110	1,720	288	2,238	312
Private:														
Corporate	8,067	662	432	76	8,499	665	--	--	--	--	--	--	8,499	665
Noncorporate private:														
Total, noncorporate private	4,403	384	2,049	182	6,451	421	--	--	--	--	--	--	6,451	421
All private	12,469	736	2,481	196	14,950	755	--	--	--	--	--	--	14,950	755
All owners	52,065	2,065	5,204	363	57,270	2,082	27,210	1,622	3,493	402	30,703	1,645	87,973	2,626

Note: Totals may be off because of rounding

Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C18.8: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2008-2017

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	41,019	2,027	2,339	307	43,358	2,033	18,328	1,377	2,452	371	20,780	1,403	64,138	2,453
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	41,019	2,027	2,339	307	43,358	2,033	18,328	1,377	2,452	371	20,780	1,403	64,138	2,453
Other federal government:														
Bureau of Land Management	355	94	294	58	650	110	240	135	90	27	330	137	979	175
Department of Defense and Energy	--	--	17	9	17	9	--	--	--	--	--	--	17	9
National Park Service	--	--	--	--	--	--	8,480	1,194	573	139	9,053	1,198	9,053	1,198
U.S. Fish and Wildlife Service	--	--	--	--	--	--	8	8	--	--	8	8	8	8
Other federal	--	--	65	47	65	47	--	--	1	1	1	1	66	47
Total	355	94	376	75	732	120	8,728	1,190	663	140	9,391	1,195	10,123	1,191
State and local government:														
Local	184	85	45	18	228	87	152	83	104	47	256	95	484	127
State	283	148	31	17	314	149	1,068	205	222	81	1,290	218	1,604	244
Other public	--	--	--	--	--	--	2	2	--	--	2	2	2	2
Total	466	170	75	24	542	172	1,222	217	326	93	1,548	233	2,090	264
Private:														
Corporate	8,465	681	497	81	8,962	685	--	--	--	--	--	--	8,962	685
Noncorporate private:														
Total, noncorporate private	4,708	418	2,565	284	7,273	501	--	--	--	--	--	--	7,273	501
All private	13,173	770	3,062	294	16,235	816	--	--	--	--	--	--	16,235	816
All owners	55,014	2,175	5,853	432	60,867	2,198	28,277	1,833	3,442	408	31,719	1,857	92,586	2,848

Note: Totals may be off because of rounding

Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C18.9: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2009-2018

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	42,907	2,064	3,035	463	45,942	2,095	18,698	1,403	2,385	371	21,083	1,428	67,026	2,515
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	42,907	2,064	3,035	463	45,942	2,095	18,698	1,403	2,385	371	21,083	1,428	67,026	2,515
Other federal government:														
Bureau of Land Management	314	90	270	56	585	105	145	84	98	29	243	89	828	136
Department of Defense and Energy	--	--	17	9	17	9	--	--	--	--	--	--	17	9
National Park Service	--	--	--	--	--	--	8,365	1,150	568	139	8,933	1,155	8,933	1,155
U.S. Fish and Wildlife Service	--	--	--	--	--	--	8	8	--	--	8	8	8	8
Other federal	9	10	65	47	74	48	--	--	1	1	1	1	75	48
Total	323	90	353	73	676	116	8,518	1,147	667	140	9,184	1,152	9,860	1,148
State and local government:														
Local	184	85	61	23	245	88	153	83	112	48	265	94	510	127
State	287	148	25	15	312	148	1,063	205	217	80	1,281	217	1,592	243
Other public	--	--	--	--	--	--	2	2	--	--	2	2	2	2
Total	471	170	86	27	557	172	1,218	216	329	93	1,547	232	2,104	262
Private:														
Corporate	8,347	661	562	89	8,909	666	--	--	--	--	--	--	8,909	666
Noncorporate private:														
Total, noncorporate private	5,017	468	2,771	296	7,788	547	--	--	--	--	--	--	7,788	547
All private	13,365	779	3,333	306	16,697	828	--	--	--	--	--	--	16,697	828
All owners	57,065	2,215	6,807	560	63,872	2,262	28,434	1,825	3,381	407	31,815	1,849	95,687	2,888

Note: Totals may be off because of rounding

Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C18.10: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2010-2019

*information duplicated in Table C10

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	44,861	2,069	3,021	455	47,882	2,098	19,670	1,485	2,408	378	22,078	1,513	69,960	2,562
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	44,861	2,069	3,021	455	47,882	2,098	19,670	1,485	2,408	378	22,078	1,513	69,960	2,562
Other federal government:														
Bureau of Land Management	553	275	273	67	826	283	140	83	98	29	238	88	1,064	296
Department of Defense and Energy	16	15	18	9	34	17	--	--	--	--	--	--	34	17
National Park Service	--	--	--	--	--	--	8,551	1,161	574	137	9,125	1,165	9,125	1,165
U.S. Fish and Wildlife Service	--	--	--	--	--	--	8	8	--	--	8	8	8	8
Other federal	9	10	65	47	74	48	--	--	1	1	1	1	74	48
Total	578	276	356	82	934	288	8,699	1,158	672	139	9,371	1,163	10,306	1,173
State and local government:														
Local	184	85	58	22	243	88	154	83	112	47	266	94	508	127
State	290	149	29	16	319	150	992	190	235	82	1,227	205	1,546	234
Other public	--	--	--	--	--	--	2	2	--	--	2	2	2	2
Total	474	171	87	27	562	173	1,148	203	346	94	1,494	221	2,055	255
Private:														
Corporate	8,279	626	574	90	8,852	631	--	--	--	--	--	--	8,852	631
Noncorporate private:														
Total, noncorporate private	5,029	466	2,830	295	7,859	545	--	--	--	--	--	--	7,859	545
All private	13,308	752	3,403	306	16,711	801	--	--	--	--	--	--	16,711	801
All owners	59,221	2,225	6,868	554	66,089	2,270	29,517	1,894	3,426	414	32,943	1,921	99,032	2,930

Note: Totals may be off because of rounding

Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C19: Aboveground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, 2010-2019: All California

**information combined with information from Table C28 in Table C27.10*

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	7,664.40	150.70	4,037.38	178.85	11,701.78	200.92	2,378.22	101.02	1,783.99	120.49	4,162.21	137.77	15,863.98	225.84
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	7,664.40	150.70	4,037.38	178.85	11,701.78	200.92	2,378.22	101.02	1,783.99	120.49	4,162.21	137.77	15,863.98	225.84
Other federal government:														
Bureau of Land Management	294.77	50.35	1,679.74	145.99	1,974.52	151.69	59.35	21.71	324.71	53.28	384.06	57.47	2,358.58	156.95
Department of Defense and Energy	30.02	17.25	129.92	32.95	159.94	37.19	--	--	6.71	7.47	6.71	7.47	166.65	37.94
National Park Service	--	--	--	--	--	--	753.55	56.64	640.45	76.40	1,394.00	91.93	1,394.00	91.93
U.S. Fish and Wildlife Service	--	--	--	--	--	--	4.45	4.57	0.92	0.88	5.37	4.65	5.37	4.65
Other federal	5.21	5.88	76.94	26.43	82.15	27.08	--	--	7.10	4.09	7.10	4.09	89.24	27.37
Total	330.00	53.26	1,886.60	149.99	2,216.60	155.85	817.35	58.56	979.88	90.36	1,797.23	102.29	4,013.83	166.18
State and local government:														
Local	48.61	16.92	205.33	39.86	253.94	44.05	46.51	18.38	200.18	38.61	246.69	40.25	500.63	57.90
State	93.68	22.34	107.20	33.85	200.88	40.62	317.47	35.70	394.62	55.94	712.09	64.76	912.97	69.67
Other public	--	--	1.21	1.15	1.21	1.15	6.09	7.31	14.20	12.35	20.30	14.35	21.51	14.40
Total	142.29	27.50	313.74	51.52	456.03	58.79	370.07	39.18	609.01	63.10	979.08	69.91	1,435.11	78.77
Private:														
Corporate	4,592.91	146.54	1,531.90	114.04	6,124.81	179.62	--	--	--	--	--	--	6,124.81	179.62
Noncorporate private:														
Total, noncorporate private	3,102.99	131.31	6,891.81	205.78	9,994.79	226.84	--	--	--	--	--	--	9,994.79	226.84
All private	7,695.90	160.37	8,423.71	215.02	16,119.61	234.98	--	--	--	--	--	--	16,119.61	234.98
All owners	15,832.59	225.31	14,661.42	318.65	30,494.01	344.03	3,565.64	122.43	3,372.88	163.19	6,938.52	184.50	37,432.53	363.20

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C20: Aboveground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	1.44	1.82	127.49	32.10	128.92	32.15	35.69	16.60	211.54	41.37	247.24	43.44	376.16	54.04
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	1.44	1.82	127.49	32.10	128.92	32.15	35.69	16.60	211.54	41.37	247.24	43.44	376.16	54.04
Other federal government:														
Bureau of Land Management	--	--	73.56	27.85	73.56	27.85	--	--	15.25	11.85	15.25	11.85	88.81	30.18
Department of Defense and Energy	--	--	72.43	22.96	72.43	22.96	--	--	--	--	--	--	72.43	22.96
National Park Service	--	--	--	--	--	--	--	--	19.62	14.18	19.62	14.18	19.62	14.18
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	8.12	9.58	8.12	9.58	--	--	0.29	0.32	0.29	0.32	8.41	9.59
Total	--	--	154.10	36.19	154.10	36.19	--	--	35.16	18.48	35.16	18.48	189.26	40.48
State and local government:														
Local	--	--	46.58	17.70	46.58	17.70	46.51	18.38	115.93	27.75	162.43	30.16	209.01	33.79
State	26.15	13.12	19.76	14.74	45.90	20.06	43.29	18.69	148.87	34.34	192.16	38.79	238.07	43.39
Other public	--	--	--	--	--	--	6.09	7.31	14.20	12.35	20.30	14.35	20.30	14.35
Total	26.15	13.12	66.33	23.03	92.48	26.68	95.89	26.37	279.00	42.66	374.89	46.37	467.37	51.16
Private:														
Corporate	48.82	19.84	195.71	38.31	244.53	43.10	--	--	--	--	--	--	244.53	43.10
Noncorporate private:														
Total, noncorporate private	162.20	32.41	1,096.06	91.70	1,258.26	96.88	--	--	--	--	--	--	1,258.26	96.88
All private	211.02	37.86	1,291.77	97.82	1,502.79	104.41	--	--	--	--	--	--	1,502.79	104.41
All owners	238.60	40.23	1,639.69	111.72	1,878.29	118.26	131.59	31.16	525.71	62.23	657.29	66.17	2,535.59	133.81

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C21: Aboveground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, 2010-2019: Central Valley

Ownership group	Unreserved forests						Reserved forests						All forest	
	Timberland		Other forest		Total		Productive		Other forest		Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal government:														
Bureau of Land Management	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	0.92	0.88	0.92	0.88	0.92	0.88
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	0.92	0.88	0.92	0.88	0.92	0.88
State and local government:														
Local	--	--	6.39	4.65	6.39	4.65	--	--	--	--	--	--	6.39	4.65
State	--	--	--	--	--	--	--	--	7.64	6.87	7.64	6.87	7.64	6.87
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	6.39	4.65	6.39	4.65	--	--	7.64	6.87	7.64	6.87	14.03	8.29
Private:														
Corporate	--	--	7.11	7.75	7.11	7.75	--	--	--	--	--	--	7.11	7.75
Noncorporate private:														
Total, noncorporate private	--	--	131.10	32.71	131.10	32.71	--	--	--	--	--	--	131.10	32.71
All private	--	--	138.21	33.61	138.21	33.61	--	--	--	--	--	--	138.21	33.61
All owners	--	--	144.60	33.93	144.60	33.93	--	--	8.55	6.93	8.55	6.93	153.16	34.63

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C22: Aboveground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, 2010-2019: Eastside

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	634.68	56.95	1,443.77	116.74	2,078.45	122.85	44.29	15.98	141.73	39.59	186.02	42.66	2,264.47	129.74
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	634.68	56.95	1,443.77	116.74	2,078.45	122.85	44.29	15.98	141.73	39.59	186.02	42.66	2,264.47	129.74
Other federal government:														
Bureau of Land Management	43.69	25.44	968.87	122.30	1,012.57	124.26	--	--	79.70	28.49	79.70	28.49	1,092.26	126.23
Department of Defense and Energy	--	--	53.65	23.32	53.65	23.32	--	--	--	--	--	--	53.65	23.32
National Park Service	--	--	--	--	--	--	--	--	113.12	32.67	113.12	32.67	113.12	32.67
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	43.69	25.44	1,022.52	124.03	1,066.22	125.75	--	--	192.81	42.54	192.81	42.54	1,259.03	129.63
State and local government:														
Local	--	--	--	--	--	--	--	--	--	--	--	--	--	--
State	--	--	--	--	--	--	5.05	5.54	10.12	10.91	15.16	12.23	15.16	12.23
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	5.05	5.54	10.12	10.91	15.16	12.23	15.16	12.23
Private:														
Corporate	311.89	58.35	151.83	44.89	463.72	74.17	--	--	--	--	--	--	463.72	74.17
Noncorporate private:														
Total, noncorporate private	90.83	24.81	288.46	68.52	379.28	73.02	--	--	--	--	--	--	379.28	73.02
All private	402.72	63.21	440.28	81.71	843.00	103.34	--	--	--	--	--	--	843.00	103.34
All owners	1,081.09	88.99	2,906.57	189.08	3,987.66	203.59	49.33	16.92	344.66	59.13	393.99	61.48	4,381.66	210.48

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C23: Aboveground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	2,384.81	93.57	561.53	68.27	2,946.34	104.41	1,260.02	78.01	379.76	57.84	1,639.78	89.87	4,586.12	120.79
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	2,384.81	93.57	561.53	68.27	2,946.34	104.41	1,260.02	78.01	379.76	57.84	1,639.78	89.87	4,586.12	120.79
Other federal government:														
Bureau of Land Management	113.02	30.45	169.48	38.31	282.50	48.37	6.23	5.85	35.91	18.24	42.14	19.16	324.64	51.33
Department of Defense and Energy	--	--	--	--	--	--	--	--	6.71	7.47	6.71	7.47	6.71	7.47
National Park Service	--	--	--	--	--	--	74.99	22.97	60.77	23.61	135.76	33.27	135.76	33.27
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	5.21	5.88	8.81	7.33	14.02	9.40	--	--	1.52	1.80	1.52	1.80	15.54	9.57
Total	118.23	30.99	178.29	39.00	296.52	49.22	81.22	23.29	104.92	30.67	186.14	38.79	482.66	59.77
State and local government:														
Local	1.77	1.95	20.47	13.01	22.24	13.15	--	--	9.52	9.14	9.52	9.14	31.77	16.01
State	7.16	6.25	34.18	19.92	41.34	20.87	3.33	2.49	28.20	16.18	31.54	16.70	72.88	26.73
Other public	--	--	1.21	1.15	1.21	1.15	--	--	--	--	--	--	1.21	1.15
Total	8.93	6.55	55.86	23.81	64.79	24.70	3.33	2.49	37.73	18.58	41.06	19.04	105.86	31.00
Private:														
Corporate	956.18	83.55	515.30	65.89	1,471.48	105.06	--	--	--	--	--	--	1,471.48	105.06
Noncorporate private:														
Total, noncorporate private	916.74	82.64	1,690.74	113.94	2,607.48	139.30	--	--	--	--	--	--	2,607.48	139.30
All private	1,872.92	112.79	2,206.04	128.10	4,078.96	167.40	--	--	--	--	--	--	4,078.96	167.40
All owners	4,384.89	150.06	3,001.72	152.22	7,386.61	204.32	1,344.58	81.19	522.41	68.05	1,866.98	99.40	9,253.59	216.09

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C24: Aboveground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, 2010-2019: North Coast

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	24.00	12.72	7.14	8.27	31.14	15.18	14.11	10.61	--	--	14.11	10.61	45.25	18.47
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	24.00	12.72	7.14	8.27	31.14	15.18	14.11	10.61	--	--	14.11	10.61	45.25	18.47
Other federal government:														
Bureau of Land Management	46.65	18.03	--	--	46.65	18.03	49.92	20.87	--	--	49.92	20.87	96.57	27.69
Department of Defense and Energy	26.21	16.82	0.15	0.16	26.37	16.82	--	--	--	--	--	--	26.37	16.82
National Park Service	--	--	--	--	--	--	52.86	20.18	8.83	8.71	61.70	21.89	61.70	21.89
U.S. Fish and Wildlife Service	--	--	--	--	--	--	4.45	4.57	--	--	4.45	4.57	4.45	4.57
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	72.86	24.22	0.15	0.16	73.02	24.22	107.24	28.78	8.83	8.71	116.07	29.98	189.08	37.64
State and local government:														
Local	21.76	9.65	11.77	8.40	33.52	15.18	--	--	57.78	26.38	57.78	26.38	91.30	30.43
State	47.87	16.16	3.03	2.75	50.90	16.39	199.85	32.32	18.12	12.41	217.97	34.70	268.87	32.29
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	69.62	18.16	14.80	8.84	84.42	21.78	199.85	32.32	75.90	29.09	275.75	43.44	360.17	42.88
Private:														
Corporate	1,377.36	87.01	44.14	18.52	1,421.49	88.89	--	--	--	--	--	--	1,421.49	88.89
Noncorporate private:														
Total, noncorporate private	1,106.46	85.87	220.86	41.20	1,327.31	93.62	--	--	--	--	--	--	1,327.31	93.62
All private	2,483.81	108.58	264.99	45.16	2,748.80	115.70	--	--	--	--	--	--	2,748.80	115.70
All owners	2,650.30	113.56	287.08	46.76	2,937.38	121.21	321.20	44.56	84.73	30.37	405.93	53.84	3,343.31	130.10

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C25: Aboveground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, 2010-2019: Sierra Cascades

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	4,473.70	120.59	1,310.99	112.15	5,784.69	145.77	869.07	60.62	820.28	85.72	1,689.35	94.61	7,474.04	169.01
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	4,473.70	120.59	1,310.99	112.15	5,784.69	145.77	869.07	60.62	820.28	85.72	1,689.35	94.61	7,474.04	169.01
Other federal government:														
Bureau of Land Management	91.41	27.19	414.43	70.13	505.83	74.54	3.20	2.90	163.65	38.53	166.85	38.64	672.68	82.59
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	625.69	50.37	281.61	51.49	907.30	69.16	907.30	69.16
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	25.40	14.48	25.40	14.48	--	--	3.08	2.92	3.08	2.92	28.48	14.77
Total	91.41	27.19	439.82	71.38	531.23	75.71	628.89	50.32	448.34	63.26	1,077.23	76.54	1,608.46	101.89
State and local government:														
Local	25.08	13.76	92.63	29.84	117.71	32.86	--	--	11.03	8.35	11.03	8.35	128.74	33.91
State	12.51	6.16	50.22	22.90	62.74	23.71	53.57	16.67	94.44	28.96	148.01	33.41	210.75	39.92
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	37.60	15.08	142.85	37.32	180.45	40.02	53.57	16.67	105.47	30.14	159.04	34.44	339.49	51.04
Private:														
Corporate	1,896.28	109.99	538.62	68.30	2,434.90	128.87	--	--	--	--	--	--	2,434.90	128.87
Noncorporate private:														
Total, noncorporate private	805.14	72.32	3,158.86	160.43	3,964.00	171.90	--	--	--	--	--	--	3,964.00	171.90
All private	2,701.41	125.50	3,697.48	168.27	6,398.89	203.12	--	--	--	--	--	--	6,398.89	203.12
All owners	7,304.11	175.80	5,591.14	216.34	12,895.26	261.62	1,551.53	80.48	1,374.09	110.68	2,925.63	126.33	15,820.88	283.80

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C26: Aboveground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	145.77	32.69	586.47	63.61	732.24	68.07	155.03	35.01	230.67	43.89	385.70	53.89	1,117.94	86.02
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	145.77	32.69	586.47	63.61	732.24	68.07	155.03	35.01	230.67	43.89	385.70	53.89	1,117.94	86.02
Other federal government:														
Bureau of Land Management	--	--	53.41	21.42	53.41	21.42	--	--	30.20	16.11	30.20	16.11	83.61	26.74
Department of Defense and Energy	3.80	3.83	3.69	4.25	7.49	5.72	--	--	--	--	--	--	7.49	5.72
National Park Service	--	--	--	--	--	--	--	--	156.50	38.46	156.50	38.46	156.50	38.46
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	34.61	18.53	34.61	18.53	--	--	2.20	2.21	2.20	2.21	36.81	18.66
Total	3.80	3.83	91.72	28.64	95.52	28.89	--	--	188.90	41.69	188.90	41.69	284.42	50.51
State and local government:														
Local	--	--	27.49	13.98	27.49	13.98	--	--	5.93	5.15	5.93	5.15	33.42	14.71
State	--	--	--	--	--	--	12.38	8.60	87.23	29.31	99.61	30.41	99.61	30.41
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	27.49	13.98	27.49	13.98	12.38	8.60	93.16	29.58	105.54	30.67	133.03	33.42
Private:														
Corporate	2.39	2.36	79.19	28.57	81.58	28.67	--	--	--	--	--	--	81.58	28.67
Noncorporate private:														
Total, noncorporate private	21.63	13.40	305.74	48.85	327.37	51.15	--	--	--	--	--	--	327.37	51.15
All private	24.02	13.61	384.93	56.53	408.95	58.57	--	--	--	--	--	--	408.95	58.57
All owners	173.59	35.62	1,090.61	90.51	1,264.20	94.95	167.41	36.05	512.73	67.34	680.14	74.69	1,944.34	120.02

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C27.1: Aboveground and Belowground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, All California (10 year averages): 2001-2010

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	8,887.09	181.26	5,613.18	224.79	14,500.27	251.38	2,474.36	110.48	1,942.39	125.32	4,416.74	145.30	18,917.02	268.54
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	8,887.09	181.26	5,613.18	224.79	14,500.27	251.38	2,474.36	110.48	1,942.39	125.32	4,416.74	145.30	18,917.02	268.54
Other federal government:														
Bureau of Land Management	390.52	59.06	2,209.05	170.16	2,599.57	177.05	25.41	12.93	450.13	66.12	475.54	67.36	3,075.11	182.76
Department of Defense and Energy	12.94	12.37	129.35	34.84	142.29	36.81	--	--	--	--	--	--	142.29	36.81
National Park Service	--	--	--	--	--	--	779.26	59.90	751.33	86.96	1,530.60	101.90	1,530.60	101.90
U.S. Fish and Wildlife Service	--	--	--	--	--	--	8.84	8.78	6.18	6.24	15.02	10.77	15.02	10.77
Other federal	--	--	164.87	43.89	164.87	43.89	12.61	8.31	26.43	14.58	39.04	16.78	203.91	46.95
Total	403.46	59.95	2,503.28	176.46	2,906.73	182.73	826.12	60.96	1,234.07	106.27	2,060.19	116.61	4,966.93	194.02
State and local government:														
Local	50.63	20.80	176.50	39.49	227.14	44.93	41.67	19.25	270.33	46.14	312.00	47.88	539.14	63.97
State	98.68	28.29	80.57	29.24	179.25	40.60	346.45	45.34	452.17	62.37	798.62	74.87	977.87	79.15
Other public	--	--	13.80	12.29	13.80	12.29	6.50	7.81	22.56	16.46	29.07	18.22	42.87	21.98
Total	149.31	34.80	270.87	50.60	420.19	61.44	394.62	48.23	745.07	71.28	1,139.69	80.47	1,559.88	89.81
Private:														
Corporate	4,882.42	169.86	902.94	94.50	5,785.36	190.41	--	--	--	--	--	--	5,785.36	190.41
Noncorporate private:														
Total, noncorporate private	4,154.86	160.49	9,286.72	255.09	13,441.58	278.44	--	--	--	--	--	--	13,441.58	278.44
All private	9,037.28	184.61	10,189.66	259.93	19,226.94	278.95	--	--	--	--	--	--	19,226.94	278.95
All owners	18,477.14	262.92	18,576.99	384.37	37,054.13	410.43	3,695.10	133.55	3,921.52	179.00	7,616.62	201.27	44,670.76	424.50

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C27.2: Aboveground and Belowground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, All California (10 year averages): 2002-2011

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	8,859.26	181.01	5,433.15	225.40	14,292.42	251.60	2,497.33	110.41	1,928.87	124.57	4,426.19	144.62	18,718.61	269.34
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	8,859.26	181.01	5,433.15	225.40	14,292.42	251.60	2,497.33	110.41	1,928.87	124.57	4,426.19	144.62	18,718.61	269.34
Other federal government:														
Bureau of Land Management	394.05	59.38	2,187.66	169.63	2,581.71	176.44	25.73	13.01	443.80	65.90	469.52	67.17	3,051.24	182.27
Department of Defense and Energy	18.31	13.64	129.99	34.93	148.31	37.30	--	--	--	--	--	--	148.31	37.30
National Park Service	--	--	--	--	--	--	776.88	59.67	740.00	85.85	1,516.89	100.85	1,516.89	100.85
U.S. Fish and Wildlife Service	--	--	--	--	--	--	8.84	8.79	6.20	6.26	15.04	10.79	15.04	10.79
Other federal	--	--	165.58	44.02	165.58	44.02	12.61	8.31	26.44	14.59	39.05	16.80	204.63	47.08
Total	412.36	60.46	2,483.23	175.97	2,895.60	182.10	824.06	60.75	1,216.44	105.37	2,040.51	115.74	4,936.10	193.61
State and local government:														
Local	31.34	14.28	174.43	39.27	205.77	42.10	42.34	19.40	268.29	45.65	310.63	47.40	516.41	61.76
State	100.68	28.40	80.90	29.32	181.58	40.73	355.78	43.43	469.41	63.48	825.19	74.76	1,006.78	78.66
Other public	--	--	14.01	12.51	14.01	12.51	6.86	8.04	13.18	12.33	20.04	14.72	34.05	19.32
Total	132.02	31.58	269.35	50.53	401.37	59.60	404.99	46.32	750.88	71.05	1,155.87	80.02	1,557.24	88.09
Private:														
Corporate	4,858.26	171.54	1,069.91	103.55	5,928.17	195.90	--	--	--	--	--	--	5,928.17	195.90
Noncorporate private:														
Total, noncorporate private	4,102.72	159.34	8,982.78	251.09	13,085.50	274.87	--	--	--	--	--	--	13,085.50	274.87
All private	8,960.98	185.93	10,052.69	257.20	19,013.67	277.85	--	--	--	--	--	--	19,013.67	277.85
All owners	18,364.63	263.58	18,238.42	382.80	36,603.06	409.92	3,726.38	132.67	3,896.19	177.85	7,622.57	200.06	44,225.62	424.80

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C27.3: Aboveground and Belowground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, All California (10 year averages): 2003-2012

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	8,817.34	179.54	5,234.47	221.12	14,051.81	247.48	2,508.89	109.43	1,940.28	124.29	4,449.17	143.35	18,500.98	266.50
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	8,817.34	179.54	5,234.47	221.12	14,051.81	247.48	2,508.89	109.43	1,940.28	124.29	4,449.17	143.35	18,500.98	266.50
Other federal government:														
Bureau of Land Management	393.50	58.60	2,177.18	172.49	2,570.68	179.18	37.80	17.12	418.32	64.13	456.11	66.37	3,026.79	184.87
Department of Defense and Energy	18.31	13.65	130.96	35.10	149.27	37.47	--	--	8.08	8.66	8.08	8.66	157.35	38.45
National Park Service	--	--	--	--	--	--	781.82	59.36	714.93	84.79	1,496.75	99.53	1,496.75	99.53
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	191.39	47.59	191.39	47.59	5.52	4.94	26.49	14.61	32.00	15.42	223.40	50.00
Total	411.81	59.88	2,499.53	179.63	2,911.34	185.66	825.14	60.26	1,167.81	103.72	1,992.95	113.60	4,904.29	195.76
State and local government:														
Local	40.83	17.92	174.32	39.28	215.15	43.48	42.74	19.61	268.04	46.34	310.78	48.36	525.93	63.37
State	100.64	28.42	97.62	33.66	198.26	43.96	371.63	43.16	458.10	63.15	829.72	74.41	1,027.98	79.80
Other public	--	--	14.01	12.52	14.01	12.52	7.05	8.27	14.13	12.78	21.18	15.22	35.19	19.71
Total	141.47	33.40	285.95	53.10	427.42	62.63	421.42	45.99	740.26	70.32	1,161.68	79.25	1,589.10	89.12
Private:														
Corporate	4,969.63	174.09	1,147.17	106.63	6,116.80	199.34	--	--	--	--	--	--	6,116.80	199.34
Noncorporate private:														
Total, noncorporate private	4,020.29	157.61	8,828.81	250.63	12,849.10	274.32	--	--	--	--	--	--	12,849.10	274.32
All private	8,989.92	187.29	9,975.98	256.50	18,965.90	278.59	--	--	--	--	--	--	18,965.90	278.59
All owners	18,360.53	263.37	17,995.94	382.00	36,356.47	409.72	3,755.45	132.33	3,848.35	176.40	7,603.80	198.34	43,960.28	425.34

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C27.4: Aboveground and Belowground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, All California (10 year averages): 2004-2013

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	8,687.77	175.48	5,079.64	216.47	13,767.41	241.21	2,477.83	108.33	1,908.73	124.64	4,386.56	142.88	18,153.97	261.17
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	8,687.77	175.48	5,079.64	216.47	13,767.41	241.21	2,477.83	108.33	1,908.73	124.64	4,386.56	142.88	18,153.97	261.17
Other federal government:														
Bureau of Land Management	389.96	58.52	2,084.44	167.45	2,474.40	174.27	43.91	18.53	431.47	65.23	475.39	67.80	2,949.79	180.69
Department of Defense and Energy	18.31	13.65	132.35	35.33	150.66	37.68	--	--	8.08	8.66	8.08	8.66	158.74	38.66
National Park Service	--	--	--	--	--	--	786.74	59.66	683.20	83.19	1,469.94	98.37	1,469.94	98.37
U.S. Fish and Wildlife Service	--	--	--	--	--	--	4.94	5.09	1.02	0.98	5.96	5.18	5.96	5.18
Other federal	--	--	183.51	46.49	183.51	46.49	--	--	19.59	12.50	19.59	12.50	203.09	48.11
Total	408.27	59.80	2,400.29	174.75	2,808.56	180.86	835.60	60.80	1,143.36	102.89	1,978.96	113.23	4,787.52	191.48
State and local government:														
Local	41.19	17.98	181.15	39.64	222.34	43.81	48.21	21.01	264.29	45.63	312.50	47.62	534.84	62.60
State	101.04	28.47	98.01	33.67	199.05	44.00	365.65	42.36	434.58	62.07	800.24	72.96	999.29	78.47
Other public	--	--	16.54	13.06	16.54	13.06	7.05	8.27	15.22	13.26	22.28	15.63	38.81	20.37
Total	142.23	33.45	295.69	53.48	437.92	62.97	420.91	46.15	714.10	70.42	1,135.01	78.86	1,572.94	88.64
Private:														
Corporate	4,978.09	173.35	1,223.73	111.99	6,201.82	201.40	--	--	--	--	--	--	6,201.82	201.40
Noncorporate private:														
Total, noncorporate private	3,910.84	154.96	8,584.82	244.63	12,495.66	268.10	--	--	--	--	--	--	12,495.66	268.10
All private	8,888.93	185.90	9,808.55	252.02	18,697.48	274.45	--	--	--	--	--	--	18,697.48	274.45
All owners	18,127.21	259.88	17,584.16	374.31	35,711.37	401.64	3,734.35	131.75	3,766.19	176.25	7,500.53	197.70	43,211.90	418.39

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C27.5: Aboveground and Belowground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, All California (10 year averages): 2005-2014

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	8,677.64	173.75	4,988.15	216.49	13,665.79	239.56	2,511.50	110.12	1,892.80	126.35	4,404.30	144.58	18,070.09	261.31
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	8,677.64	173.75	4,988.15	216.49	13,665.79	239.56	2,511.50	110.12	1,892.80	126.35	4,404.30	144.58	18,070.09	261.31
Other federal government:														
Bureau of Land Management	376.02	56.77	1,989.76	160.20	2,365.78	166.80	49.98	19.72	391.26	62.22	441.24	65.20	2,807.01	172.74
Department of Defense and Energy	18.64	13.92	124.99	34.62	143.63	37.32	--	--	8.08	8.65	8.08	8.65	151.71	38.31
National Park Service	--	--	--	--	--	--	787.42	59.25	665.68	81.98	1,453.09	97.69	1,453.09	97.69
U.S. Fish and Wildlife Service	--	--	--	--	--	--	4.95	5.08	1.02	0.98	5.96	5.18	5.96	5.18
Other federal	--	--	186.40	46.52	186.40	46.52	--	--	19.59	12.49	19.59	12.49	205.98	48.14
Total	394.66	58.14	2,301.15	167.86	2,695.80	173.81	842.34	60.74	1,085.62	100.23	1,927.96	111.31	4,623.76	184.49
State and local government:														
Local	48.89	18.78	206.21	42.40	255.10	46.65	48.21	21.00	256.62	45.18	304.83	47.19	559.93	64.33
State	103.77	28.18	99.70	33.59	203.48	43.94	364.42	42.02	430.45	61.36	794.88	72.15	998.35	77.88
Other public	--	--	15.27	12.79	15.27	12.79	7.05	8.26	15.22	13.25	22.28	15.62	37.54	20.19
Total	152.67	33.66	321.18	55.34	473.84	64.80	419.69	45.84	702.29	69.55	1,121.98	77.90	1,595.82	89.34
Private:														
Corporate	4,993.42	172.79	1,340.17	115.93	6,333.59	203.27	--	--	--	--	--	--	6,333.59	203.27
Noncorporate private:														
Total, noncorporate private	3,834.55	152.85	8,328.06	242.60	12,162.61	266.13	--	--	--	--	--	--	12,162.61	266.13
All private	8,827.97	184.76	9,668.23	249.94	18,496.20	272.24	--	--	--	--	--	--	18,496.20	272.24
All owners	18,052.93	257.95	17,278.70	370.27	35,331.63	396.90	3,773.53	133.06	3,680.71	175.58	7,454.24	197.45	42,785.87	414.79

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C27.7: Aboveground and Belowground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, All California (10 year averages): 2007-2015

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	8,658.41	173.88	4,798.08	211.58	13,456.49	236.03	2,566.97	110.79	1,894.44	128.18	4,461.41	146.70	17,917.90	260.55
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	8,658.41	173.88	4,798.08	211.58	13,456.49	236.03	2,566.97	110.79	1,894.44	128.18	4,461.41	146.70	17,917.90	260.55
Other federal government:														
Bureau of Land Management	358.35	54.32	1,966.22	162.98	2,324.57	168.78	61.23	22.43	378.22	60.97	439.44	64.89	2,764.01	174.52
Department of Defense and Energy	19.92	15.04	124.36	34.44	144.28	37.58	--	--	8.08	8.65	8.08	8.65	152.36	38.56
National Park Service	--	--	--	--	--	--	776.58	57.79	672.11	82.56	1,448.69	97.32	1,448.69	97.32
U.S. Fish and Wildlife Service	--	--	--	--	--	--	4.95	5.09	1.02	0.98	5.96	5.18	5.96	5.18
Other federal	--	--	187.23	46.76	187.23	46.76	--	--	19.60	12.50	19.60	12.50	206.83	48.36
Total	378.27	55.98	2,277.81	170.55	2,656.08	175.94	842.76	60.27	1,079.01	99.88	1,921.77	110.53	4,577.86	186.10
State and local government:														
Local	47.18	18.83	206.64	42.47	253.82	46.73	44.47	19.46	247.77	44.34	292.24	45.91	546.06	63.45
State	101.32	24.78	97.47	33.52	198.79	41.78	364.49	42.07	422.47	61.21	786.96	72.06	985.75	76.95
Other public	--	--	15.77	13.03	15.77	13.03	7.05	8.27	15.41	13.43	22.47	15.77	38.24	20.46
Total	148.50	30.82	319.88	55.34	468.38	63.34	416.02	45.30	685.65	69.00	1,101.66	77.39	1,570.05	88.01
Private:														
Corporate	5,050.22	170.77	1,489.51	121.73	6,539.72	204.91	--	--	--	--	--	--	6,539.72	204.91
Noncorporate private:														
Total, noncorporate private	3,739.42	151.23	8,084.24	239.00	11,823.66	262.73	--	--	--	--	--	--	11,823.66	262.73
All private	8,789.64	183.73	9,573.75	248.30	18,363.39	270.69	--	--	--	--	--	--	18,363.39	270.69
All owners	17,974.83	257.14	16,969.51	368.13	34,944.35	395.21	3,825.74	133.17	3,659.10	176.50	7,484.84	198.47	42,429.19	414.50

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C27.7: Aboveground and Belowground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, All California (10 year averages): 2007-2016

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	8,628.04	172.37	4,656.86	205.98	13,284.90	231.43	2,599.95	110.19	1,940.78	129.98	4,540.74	147.76	17,825.64	257.44
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	8,628.04	172.37	4,656.86	205.98	13,284.90	231.43	2,599.95	110.19	1,940.78	129.98	4,540.74	147.76	17,825.64	257.44
Other federal government:														
Bureau of Land Management	344.43	53.69	1,965.72	164.73	2,310.16	170.49	79.38	26.22	378.89	61.32	458.27	66.59	2,768.43	176.80
Department of Defense and Energy	34.72	19.72	133.63	35.62	168.35	40.72	--	--	8.08	8.66	8.08	8.66	176.43	41.63
National Park Service	--	--	--	--	--	--	776.78	57.91	683.37	83.22	1,460.15	97.92	1,460.15	97.92
U.S. Fish and Wildlife Service	--	--	--	--	--	--	4.95	5.09	1.02	0.98	5.96	5.18	5.96	5.18
Other federal	--	--	161.28	41.11	161.28	41.11	--	--	19.76	12.52	19.76	12.52	181.04	42.95
Total	379.16	56.82	2,260.62	171.22	2,639.78	177.08	861.10	60.84	1,091.12	100.70	1,952.23	111.49	4,592.01	187.60
State and local government:														
Local	59.66	20.34	234.53	45.51	294.20	50.93	44.51	19.47	245.90	44.33	290.41	45.90	584.61	66.29
State	99.07	24.39	99.53	33.67	198.60	41.67	358.79	39.94	426.35	61.31	785.14	71.00	983.74	75.19
Other public	--	--	15.77	13.04	15.77	13.04	7.05	8.27	15.41	13.43	22.47	15.77	38.24	20.46
Total	158.74	31.35	349.83	57.23	508.57	65.84	410.35	43.33	687.66	68.99	1,098.01	76.28	1,606.58	87.59
Private:														
Corporate	5,157.43	172.36	1,581.18	124.54	6,738.60	207.01	--	--	--	--	--	--	6,738.60	207.01
Noncorporate private:														
Total, noncorporate private	3,543.07	146.22	7,935.59	235.91	11,478.65	259.11	--	--	--	--	--	--	11,478.65	259.11
All private	8,700.49	182.64	9,516.76	245.43	18,217.26	269.11	--	--	--	--	--	--	18,217.26	269.11
All owners	17,866.43	255.46	16,784.08	363.75	34,650.51	392.40	3,871.41	132.29	3,719.57	178.26	7,590.98	199.38	42,241.48	412.48

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C27.8: Aboveground and Belowground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, All California (10 year averages): 2008-2017

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	8,554.10	170.10	4,657.63	206.64	13,211.72	230.59	2,595.85	109.49	1,962.32	130.96	4,558.18	148.24	17,769.90	255.98
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	8,554.10	170.10	4,657.63	206.64	13,211.72	230.59	2,595.85	109.49	1,962.32	130.96	4,558.18	148.24	17,769.90	255.98
Other federal government:														
Bureau of Land Management	359.41	55.02	1,946.02	163.48	2,305.43	169.59	79.19	26.21	375.45	60.83	454.63	66.13	2,760.07	175.89
Department of Defense and Energy	34.71	19.72	134.04	35.69	168.75	40.77	--	--	7.46	8.32	7.46	8.32	176.21	41.61
National Park Service	--	--	--	--	--	--	791.98	59.37	689.32	83.26	1,481.30	98.73	1,481.30	98.73
U.S. Fish and Wildlife Service	--	--	--	--	--	--	4.95	5.09	1.02	0.98	5.96	5.18	5.96	5.18
Other federal	--	--	98.68	31.44	98.68	31.44	--	--	8.17	4.66	8.17	4.66	106.85	31.75
Total	394.12	58.08	2,178.74	167.93	2,572.86	174.18	876.12	62.14	1,081.41	99.99	1,957.53	111.66	4,530.39	184.98
State and local government:														
Local	53.01	18.38	234.27	45.54	287.27	49.94	44.58	19.50	233.44	43.14	278.02	44.85	565.29	64.92
State	99.06	24.47	98.98	33.64	198.04	41.69	358.69	40.08	420.62	60.58	779.31	70.95	977.35	75.25
Other public	--	--	15.76	13.03	15.76	13.03	7.16	8.39	15.78	13.75	22.94	16.10	38.70	20.72
Total	152.07	30.14	349.01	57.23	501.08	65.09	410.42	43.49	669.85	67.99	1,080.27	75.97	1,581.35	86.81
Private:														
Corporate	5,241.25	171.66	1,668.26	127.03	6,909.51	207.32	--	--	--	--	--	--	6,909.51	207.32
Noncorporate private:														
Total, noncorporate private	3,426.69	145.40	7,801.08	231.81	11,227.77	255.35	--	--	--	--	--	--	11,227.77	255.35
All private	8,667.94	183.03	9,469.34	241.96	18,137.28	266.44	--	--	--	--	--	--	18,137.28	266.44
All owners	17,768.23	254.65	16,654.71	360.31	34,422.94	389.32	3,882.39	132.36	3,713.59	178.21	7,595.98	199.71	42,018.92	409.03

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C27.9: Aboveground and Belowground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, All California (10 year averages): 2009-2018

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	8,525.00	169.15	4,591.75	202.25	13,116.75	226.30	2,603.82	110.62	1,952.78	132.61	4,556.60	150.76	17,673.35	252.41
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	8,525.00	169.15	4,591.75	202.25	13,116.75	226.30	2,603.82	110.62	1,952.78	132.61	4,556.60	150.76	17,673.35	252.41
Other federal government:														
Bureau of Land Management	342.92	56.88	1,890.76	159.84	2,233.68	166.65	71.74	25.08	362.36	59.43	434.10	64.41	2,667.77	172.46
Department of Defense and Energy	33.30	19.14	136.96	35.80	170.25	40.60	--	--	7.46	8.31	7.46	8.31	177.71	41.44
National Park Service	--	--	--	--	--	--	809.39	60.74	691.07	83.36	1,500.46	99.60	1,500.46	99.60
U.S. Fish and Wildlife Service	--	--	--	--	--	--	4.95	5.08	1.02	0.98	5.96	5.18	5.96	5.18
Other federal	5.78	6.54	95.47	31.17	101.25	31.85	--	--	8.09	4.62	8.09	4.62	109.35	32.15
Total	382.00	60.05	2,123.19	164.44	2,505.18	171.41	886.08	63.37	1,070.00	99.26	1,956.07	111.70	4,461.26	181.94
State and local government:														
Local	53.54	18.55	237.89	46.07	291.43	50.53	51.58	20.40	223.50	42.96	275.08	44.76	566.51	65.69
State	105.91	25.25	108.68	35.90	214.59	43.96	354.80	39.83	417.47	60.40	772.27	70.53	986.86	75.29
Other public	--	--	1.36	1.28	1.36	1.28	6.77	8.13	15.78	13.74	22.55	15.97	23.91	16.02
Total	159.45	30.75	347.93	57.67	507.38	65.88	413.15	43.67	656.75	68.59	1,069.90	76.37	1,577.29	87.30
Private:														
Corporate	5,220.47	168.63	1,702.34	126.82	6,922.81	204.60	--	--	--	--	--	--	6,922.81	204.60
Noncorporate private:														
Total, noncorporate private	3,401.12	145.06	7,734.67	231.68	11,135.79	254.61	--	--	--	--	--	--	11,135.79	254.61
All private	8,621.59	181.58	9,437.01	241.53	18,058.60	265.42	--	--	--	--	--	--	18,058.60	265.42
All owners	17,688.04	254.21	16,499.88	356.01	34,187.92	385.46	3,903.05	133.94	3,679.53	179.25	7,582.57	201.78	41,770.49	405.43

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C27.10: Aboveground and Belowground Carbon, Dry Weight of Live Understory Vegetation by Owner Group and Forest Land Status, All California (10 year averages): 2010-2019

**information combined from Table C19 and Table C28*

Ownership group	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	SE
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	8,516.00	167.44	4,485.98	198.72	13,001.97	223.25	2,642.47	112.25	1,982.21	133.88	4,624.68	153.08	17,626.65	250.94
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	8,516.00	167.44	4,485.98	198.72	13,001.97	223.25	2,642.47	112.25	1,982.21	133.88	4,624.68	153.08	17,626.65	250.94
Other federal government:														
Bureau of Land Management	327.53	55.95	1,866.38	162.21	2,193.91	168.54	65.95	24.12	360.78	59.20	426.73	63.86	2,620.64	174.39
Department of Defense and Energy	33.35	19.16	144.35	36.61	177.71	41.32	--	--	7.46	8.30	7.46	8.30	185.17	42.15
National Park Service	--	--	--	--	--	--	837.27	62.94	711.61	84.89	1,548.89	102.14	1,548.89	102.14
U.S. Fish and Wildlife Service	--	--	--	--	--	--	4.94	5.08	1.02	0.98	5.96	5.17	5.96	5.17
Other federal	5.78	6.54	85.49	29.36	91.27	30.08	--	--	7.89	4.55	7.89	4.55	99.16	30.41
Total	366.66	59.17	2,096.22	166.66	2,462.89	173.17	908.16	65.06	1,088.76	100.40	1,996.92	113.66	4,459.81	184.64
State and local government:														
Local	54.01	18.80	228.14	44.29	282.15	48.94	51.68	20.42	222.43	42.90	274.10	44.72	556.26	64.34
State	104.09	24.82	119.11	37.61	223.20	45.13	352.74	39.67	438.47	62.15	791.21	71.95	1,014.41	77.41
Other public	--	--	1.35	1.27	1.35	1.27	6.77	8.12	15.78	13.73	22.55	15.95	23.90	16.00
Total	158.10	30.55	348.60	57.24	506.70	65.32	411.19	43.54	676.68	70.11	1,087.87	77.68	1,594.57	87.52
Private:														
Corporate	5,103.23	162.83	1,702.11	126.71	6,805.34	199.57	--	--	--	--	--	--	6,805.34	199.57
Noncorporate private:														
Total, noncorporate private	3,447.76	145.90	7,657.56	228.65	11,105.33	252.05	--	--	--	--	--	--	11,105.33	252.05
All private	8,551.00	178.19	9,359.67	238.91	17,910.67	261.09	--	--	--	--	--	--	17,910.67	261.09
All owners	17,591.76	250.35	16,290.47	354.05	33,882.23	382.25	3,961.82	136.04	3,747.65	181.32	7,709.46	205.00	41,591.70	403.55

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C28: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, 2010-2019: All California

**information combined with information from Table C19 in Table C27.10*

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:	851.60	16.74	448.60	19.87	1,300.20	22.32	264.25	11.22	198.22	13.39	462.47	15.31	1,762.66	25.09
National Forest														
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	851.60	16.74	448.60	19.87	1,300.20	22.32	264.25	11.22	198.22	13.39	462.47	15.31	1,762.66	25.09
Other federal government:														
Bureau of Land Management	32.75	5.59	186.64	16.22	219.39	16.85	6.59	2.41	36.08	5.92	42.67	6.39	262.06	17.44
Department of Defense and Energy	3.34	1.92	14.44	3.66	17.77	4.13	--	--	0.75	0.83	0.75	0.83	18.52	4.22
National Park Service	--	--	--	--	--	--	83.73	6.29	71.16	8.49	154.89	10.21	154.89	10.21
U.S. Fish and Wildlife Service	--	--	--	--	--	--	0.49	0.51	0.10	0.10	0.60	0.52	0.60	0.52
Other federal	0.58	0.65	8.55	2.94	9.13	3.01	--	--	0.79	0.45	0.79	0.45	9.92	3.04
Total	36.67	5.92	209.62	16.67	246.29	17.32	90.82	6.51	108.88	10.04	199.69	11.37	445.98	18.46
State and local government:														
Local	5.40	1.88	22.81	4.43	28.22	4.89	5.17	2.04	22.24	4.29	27.41	4.47	55.63	6.43
State	10.41	2.48	11.91	3.76	22.32	4.51	35.27	3.97	43.85	6.22	79.12	7.20	101.44	7.74
Other public	--	--	0.13	0.13	0.13	0.13	0.68	0.81	1.58	1.37	2.26	1.59	2.39	1.60
Total	15.81	3.06	34.86	5.72	50.67	6.53	41.12	4.35	67.67	7.01	108.79	7.77	159.46	8.75
Private:														
Corporate	510.32	16.28	170.21	12.67	680.53	19.96	--	--	--	--	--	--	680.53	19.96
Noncorporate private:														
Total, noncorporate private	344.78	14.59	765.76	22.86	1,110.53	25.20	--	--	--	--	--	--	1,110.53	25.20
All private	855.10	17.82	935.97	23.89	1,791.07	26.11	--	--	--	--	--	--	1,791.07	26.11
All owners	1,759.18	25.03	1,629.05	35.41	3,388.22	38.23	396.18	13.60	374.76	18.13	770.95	20.50	4,159.17	40.36

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C29: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	0.16	0.20	14.17	3.57	14.32	3.57	3.97	1.84	23.50	4.60	27.47	4.83	41.80	6.00
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	0.16	0.20	14.17	3.57	14.32	3.57	3.97	1.84	23.50	4.60	27.47	4.83	41.80	6.00
Other federal government:														
Bureau of Land Management	--	--	8.17	3.09	8.17	3.09	--	--	1.69	1.32	1.69	1.32	9.87	3.35
Department of Defense and Energy	--	--	8.05	2.55	8.05	2.55	--	--	--	--	--	--	8.05	2.55
National Park Service	--	--	--	--	--	--	--	--	2.18	1.58	2.18	1.58	2.18	1.58
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	0.90	1.06	0.90	1.06	--	--	0.03	0.04	0.03	0.04	0.93	1.07
Total	--	--	17.12	4.02	17.12	4.02	--	--	3.91	2.05	3.91	2.05	21.03	4.50
State and local government:														
Local	--	--	5.18	1.97	5.18	1.97	5.17	2.04	12.88	3.08	18.05	3.35	23.22	3.75
State	2.91	1.46	2.20	1.64	5.10	2.23	4.81	2.08	16.54	3.82	21.35	4.31	26.45	4.82
Other public	--	--	--	--	--	--	0.68	0.81	1.58	1.37	2.26	1.59	2.26	1.59
Total	2.91	1.46	7.37	2.56	10.28	2.96	10.65	2.93	31.00	4.74	41.65	5.15	51.93	5.68
Private:														
Corporate	5.42	2.20	21.75	4.26	27.17	4.79	--	--	--	--	--	--	27.17	4.79
Noncorporate private:														
Total, noncorporate private	18.02	3.60	121.78	10.19	139.81	10.76	--	--	--	--	--	--	139.81	10.76
All private	23.45	4.21	143.53	10.87	166.98	11.60	--	--	--	--	--	--	166.98	11.60
All owners	26.51	4.47	182.19	12.41	208.70	13.14	14.62	3.46	58.41	6.91	73.03	7.35	281.73	14.87

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C30: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, 2010-2019: Central Valley

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal government:														
Bureau of Land Management	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	0.10	0.10	0.10	0.10	0.10	0.10
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	0.10	0.10	0.10	0.10	0.10	0.10
State and local government:														
Local	--	--	0.71	0.52	0.71	0.52	--	--	--	--	--	--	0.71	0.52
State	--	--	--	--	--	--	--	--	0.85	0.76	0.85	0.76	0.85	0.76
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	0.71	0.52	0.71	0.52	--	--	0.85	0.76	0.85	0.76	1.56	0.92
Private:														
Corporate	--	--	0.79	0.86	0.79	0.86	--	--	--	--	--	--	0.79	0.86
Noncorporate private:														
Total, noncorporate private	--	--	14.57	3.63	14.57	3.63	--	--	--	--	--	--	14.57	3.63
All private	--	--	15.36	3.73	15.36	3.73	--	--	--	--	--	--	15.36	3.73
All owners	--	--	16.07	3.77	16.07	3.77	--	--	0.95	0.77	0.95	0.77	17.02	3.85

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C31: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, 2010-2019: Eastside

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	70.52	6.33	160.42	12.97	230.94	13.65	4.92	1.78	15.75	4.40	20.67	4.74	251.61	14.42
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	70.52	6.33	160.42	12.97	230.94	13.65	4.92	1.78	15.75	4.40	20.67	4.74	251.61	14.42
Other federal government:														
Bureau of Land Management	4.85	2.83	107.65	13.59	112.51	13.81	--	--	8.86	3.17	8.86	3.17	121.36	14.03
Department of Defense and Energy	--	--	5.96	2.59	5.96	2.59	--	--	--	--	--	--	5.96	2.59
National Park Service	--	--	--	--	--	--	--	--	12.57	3.63	12.57	3.63	12.57	3.63
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	4.85	2.83	113.61	13.78	118.47	13.97	--	--	21.42	4.73	21.42	4.73	139.89	14.40
State and local government:														
Local	--	--	--	--	--	--	--	--	--	--	--	--	--	--
State	--	--	--	--	--	--	0.56	0.62	1.12	1.21	1.68	1.36	1.68	1.36
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	0.56	0.62	1.12	1.21	1.68	1.36	1.68	1.36
Private:														
Corporate	34.65	6.48	16.87	4.99	51.52	8.24	--	--	--	--	--	--	51.52	8.24
Noncorporate private:														
Total, noncorporate private	10.09	2.76	32.05	7.61	42.14	8.11	--	--	--	--	--	--	42.14	8.11
All private	44.75	7.02	48.92	9.08	93.67	11.48	--	--	--	--	--	--	93.67	11.48
All owners	120.12	9.89	322.95	21.01	443.07	22.62	5.48	1.88	38.30	6.57	43.78	6.83	486.85	23.39

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C32: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	264.98	10.40	62.39	7.59	327.37	11.60	140.00	8.67	42.20	6.43	182.20	9.99	509.57	13.42
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	264.98	10.40	62.39	7.59	327.37	11.60	140.00	8.67	42.20	6.43	182.20	9.99	509.57	13.42
Other federal government:														
Bureau of Land Management	12.56	3.38	18.83	4.26	31.39	5.37	0.69	0.65	3.99	2.03	4.68	2.13	36.07	5.70
Department of Defense and Energy	--	--	--	--	--	--	--	--	0.75	0.83	0.75	0.83	0.75	0.83
National Park Service	--	--	--	--	--	--	8.33	2.55	6.75	2.62	15.08	3.70	15.08	3.70
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	0.58	0.65	0.98	0.81	1.56	1.04	--	--	0.17	0.20	0.17	0.20	1.73	1.06
Total	13.14	3.44	19.81	4.33	32.95	5.47	9.02	2.59	11.66	3.41	20.68	4.31	53.63	6.64
State and local government:														
Local	0.20	0.22	2.27	1.45	2.47	1.46	--	--	1.06	1.02	1.06	1.02	3.53	1.78
State	0.80	0.69	3.80	2.21	4.59	2.32	0.37	0.28	3.13	1.80	3.50	1.86	8.10	2.97
Other public	--	--	0.13	0.13	0.13	0.13	--	--	--	--	--	--	0.13	0.13
Total	0.99	0.73	6.21	2.65	7.20	2.74	0.37	0.28	4.19	2.06	4.56	2.12	11.76	3.44
Private:														
Corporate	106.24	9.28	57.26	7.32	163.50	11.67	--	--	--	--	--	--	163.50	11.67
Noncorporate private:														
Total, noncorporate private	101.86	9.18	187.86	12.66	289.72	15.48	--	--	--	--	--	--	289.72	15.48
All private	208.10	12.53	245.12	14.23	453.22	18.60	--	--	--	--	--	--	453.22	18.60
All owners	487.21	16.67	333.52	16.91	820.73	22.70	149.40	9.02	58.05	7.56	207.44	11.04	1,028.18	24.01

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C33: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, 2010-2019: North Coast

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	2.67	1.41	0.79	0.92	3.46	1.69	1.57	1.18	--	--	1.57	1.18	5.03	2.05
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	2.67	1.41	0.79	0.92	3.46	1.69	1.57	1.18	--	--	1.57	1.18	5.03	2.05
Other federal government:														
Bureau of Land Management	5.18	2.00	--	--	5.18	2.00	5.55	2.32	--	--	5.55	2.32	10.73	3.08
Department of Defense and Energy	2.91	1.87	0.02	0.02	2.93	1.87	--	--	--	--	--	--	2.93	1.87
National Park Service	--	--	--	--	--	--	5.87	2.24	0.98	0.97	6.86	2.43	6.86	2.43
U.S. Fish and Wildlife Service	--	--	--	--	--	--	0.49	0.51	--	--	0.49	0.51	0.49	0.51
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	8.10	2.69	0.02	0.02	8.11	2.69	11.92	3.20	0.98	0.97	12.90	3.33	21.01	4.18
State and local government:														
Local	2.42	1.07	1.31	0.93	3.72	1.69	--	--	6.42	2.93	6.42	2.93	10.14	3.38
State	5.32	1.80	0.34	0.31	5.66	1.82	22.21	3.59	2.01	1.38	24.22	3.86	29.87	3.59
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	7.74	2.02	1.64	0.98	9.38	2.42	22.21	3.59	8.43	3.23	30.64	4.83	40.02	4.76
Private:														
Corporate	153.04	9.67	4.90	2.06	157.94	9.88	--	--	--	--	--	--	157.94	9.88
Noncorporate private:														
Total, noncorporate private	122.94	9.54	24.54	4.58	147.48	10.40	--	--	--	--	--	--	147.48	10.40
All private	275.98	12.06	29.44	5.02	305.42	12.86	--	--	--	--	--	--	305.42	12.86
All owners	294.48	12.62	31.90	5.20	326.38	13.47	35.69	4.95	9.41	3.37	45.10	5.98	371.48	14.46

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C34: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, 2010-2019: Sierra Cascades

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	497.08	13.40	145.67	12.46	642.74	16.20	96.56	6.74	91.14	9.52	187.71	10.51	830.45	18.78
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	497.08	13.40	145.67	12.46	642.74	16.20	96.56	6.74	91.14	9.52	187.71	10.51	830.45	18.78
Other federal government:														
Bureau of Land Management	10.16	3.02	46.05	7.79	56.20	8.28	0.36	0.32	18.18	4.28	18.54	4.29	74.74	9.18
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	69.52	5.60	31.29	5.72	100.81	7.68	100.81	7.68
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	2.82	1.61	2.82	1.61	--	--	0.34	0.32	0.34	0.32	3.16	1.64
Total	10.16	3.02	48.87	7.93	59.03	8.41	69.88	5.59	49.82	7.03	119.69	8.50	178.72	11.32
State and local government:														
Local	2.79	1.53	10.29	3.32	13.08	3.65	--	--	1.23	0.93	1.23	0.93	14.30	3.77
State	1.39	0.68	5.58	2.54	6.97	2.63	5.95	1.85	10.49	3.22	16.45	3.71	23.42	4.44
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	4.18	1.68	15.87	4.15	20.05	4.45	5.95	1.85	11.72	3.35	17.67	3.83	37.72	5.67
Private:														
Corporate	210.70	12.22	59.85	7.59	270.54	14.32	--	--	--	--	--	--	270.54	14.32
Noncorporate private:														
Total, noncorporate private	89.46	8.04	350.98	17.83	440.44	19.10	--	--	--	--	--	--	440.44	19.10
All private	300.16	13.94	410.83	18.70	710.99	22.57	--	--	--	--	--	--	710.99	22.57
All owners	811.57	19.53	621.24	24.04	1,432.81	29.07	172.39	8.94	152.68	12.30	325.07	14.04	1,757.88	31.53

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C35: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Owner Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	16.20	3.63	65.16	7.07	81.36	7.56	17.23	3.89	25.63	4.88	42.86	5.99	124.22	9.56
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	16.20	3.63	65.16	7.07	81.36	7.56	17.23	3.89	25.63	4.88	42.86	5.99	124.22	9.56
Other federal government:														
Bureau of Land Management	--	--	5.93	2.38	5.93	2.38	--	--	3.36	1.79	3.36	1.79	9.29	2.97
Department of Defense and Energy	0.42	0.43	0.41	0.47	0.83	0.64	--	--	--	--	--	--	0.83	0.64
National Park Service	--	--	--	--	--	--	--	--	17.39	4.27	17.39	4.27	17.39	4.27
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	3.85	2.06	3.85	2.06	--	--	0.24	0.25	0.24	0.25	4.09	2.07
Total	0.42	0.43	10.19	3.18	10.61	3.21	--	--	20.99	4.63	20.99	4.63	31.60	5.61
State and local government:														
Local	--	--	3.05	1.55	3.05	1.55	--	--	0.66	0.57	0.66	0.57	3.71	1.63
State	--	--	--	--	--	--	1.38	0.96	9.69	3.26	11.07	3.38	11.07	3.38
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	3.05	1.55	3.05	1.55	1.38	0.96	10.35	3.29	11.73	3.41	14.78	3.71
Private:														
Corporate	0.27	0.26	8.80	3.17	9.06	3.19	--	--	--	--	--	--	9.06	3.19
Noncorporate private:														
Total, noncorporate private	2.40	1.49	33.97	5.43	36.37	5.68	--	--	--	--	--	--	36.37	5.68
All private	2.67	1.51	42.77	6.28	45.44	6.51	--	--	--	--	--	--	45.44	6.51
All owners	19.29	3.96	121.18	10.06	140.47	10.55	18.60	4.01	56.97	7.48	75.57	8.30	216.04	13.34

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C36: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) by Owner Group and Forest Land Status, 2010-2019: All California

**information combined with information from Table C45 in Table C44.10*

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	72,584	1,459	4,704	390	77,288	1,444	24,317	1,070	3,196	323	27,513	1,071	104,801	1,646
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	72,584	1,459	4,704	390	77,288	1,444	24,317	1,070	3,196	323	27,513	1,071	104,801	1,646
Other federal government:														
Bureau of Land Management	1,805	404	1,184	190	2,989	443	533	215	270	62	803	223	3,792	476
Department of Defense and Energy	47	40	176	55	224	68	--	--	20	22	20	22	244	72
National Park Service	--	--	--	--	--	--	9,996	936	1,350	237	11,347	948	11,347	948
U.S. Fish and Wildlife Service	--	--	--	--	--	--	5	5	3	3	8	6	8	6
Other federal	--	--	44	20	44	20	--	--	13	10	13	10	57	23
Total	1,853	405	1,404	198	3,257	446	10,534	933	1,657	243	12,191	942	15,448	929
State and local government:														
Local	605	224	337	80	942	238	706	304	537	132	1,243	323	2,185	394
State	1,666	437	166	86	1,832	447	5,689	1,134	869	244	6,557	1,154	8,390	1,136
Other public	--	--	--	--	--	--	60	72	13	11	73	73	73	73
Total	2,271	480	503	117	2,774	495	6,455	1,154	1,419	271	7,874	1,173	10,648	1,146
Private:														
Corporate	31,447	1,108	2,931	300	34,378	1,127	--	--	--	--	--	--	34,378	1,127
Noncorporate private:														
Total, noncorporate private	26,412	1,213	11,061	456	37,473	1,242	--	--	--	--	--	--	37,473	1,242
All private	57,859	1,277	13,992	516	71,851	1,274	--	--	--	--	--	--	71,851	1,274
All owners	134,567	2,010	20,603	682	155,170	1,998	41,306	1,818	6,272	486	47,578	1,835	202,748	2,474

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C37: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) by Owner Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	1	1	126	62	126	62	475	279	320	107	795	309	921	315
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	1	1	126	62	126	62	475	279	320	107	795	309	921	315
Other federal government:														
Bureau of Land Management	--	--	24	11	24	11	--	--	2	2	2	2	26	11
Department of Defense and Energy	--	--	138	52	138	52	--	--	--	--	--	--	138	52
National Park Service	--	--	--	--	--	--	--	--	87	63	87	63	87	63
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	161	53	161	53	--	--	89	63	89	63	251	82
State and local government:														
Local	--	--	115	53	115	53	706	304	311	90	1,017	311	1,132	314
State	523	277	19	11	542	279	997	441	285	85	1,282	448	1,824	525
Other public	--	--	--	--	--	--	60	72	13	11	73	73	73	73
Total	523	277	133	54	656	284	1,764	525	609	116	2,372	528	3,029	589
Private:														
Corporate	552	226	516	133	1,067	261	--	--	--	--	--	--	1,067	261
Noncorporate private:														
Total, noncorporate private	2,846	586	2,002	207	4,848	619	--	--	--	--	--	--	4,848	619
All private	3,398	627	2,517	242	5,915	668	--	--	--	--	--	--	5,915	668
All owners	3,922	693	2,937	261	6,859	736	2,239	594	1,018	170	3,257	615	10,116	963

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C38: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) by Owner Group and Forest Land Status, 2010-2019: Central Valley

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal government:														
Bureau of Land Management	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	3	3	3	3	3	3
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	3	3	3	3	3	3
State and local government:														
Local	--	--	17	15	17	15	--	--	--	--	--	--	17	15
State	--	--	--	--	--	--	--	--	27	27	27	27	27	27
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	17	15	17	15	--	--	27	27	27	27	44	31
Private:														
Corporate	--	--	24	26	24	26	--	--	--	--	--	--	24	26
Noncorporate private:														
Total, noncorporate private	--	--	233	82	233	82	--	--	--	--	--	--	233	82
All private	--	--	256	86	256	86	--	--	--	--	--	--	256	86
All owners	--	--	274	87	274	87	--	--	30	27	30	27	303	91

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C39: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) by Owner Group and Forest Land Status, 2010-2019: Eastside

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	2,361	214	778	104	3,139	231	409	174	274	89	682	195	3,822	301
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	2,361	214	778	104	3,139	231	409	174	274	89	682	195	3,822	301
Other federal government:														
Bureau of Land Management	48	23	298	46	346	50	--	--	70	29	70	29	415	57
Department of Defense and Energy	--	--	29	15	29	15	--	--	--	--	--	--	29	15
National Park Service	--	--	--	--	--	--	--	--	74	26	74	26	74	26
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	48	23	327	48	375	52	--	--	144	39	144	39	518	63
State and local government:														
Local	--	--	--	--	--	--	--	--	--	--	--	--	--	--
State	--	--	--	--	--	--	29	32	5	6	34	32	34	32
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	29	32	5	6	34	32	34	32
Private:														
Corporate	592	123	46	17	638	124	--	--	--	--	--	--	638	124
Noncorporate private:														
Total, noncorporate private	255	83	93	27	348	87	--	--	--	--	--	--	348	87
All private	847	148	139	32	987	151	--	--	--	--	--	--	987	151
All owners	3,256	265	1,244	118	4,501	285	437	177	423	97	860	202	5,361	347

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C40: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) by Owner Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	27,484	1,087	1,527	277	29,011	1,087	13,541	842	787	176	14,327	843	43,338	1,221
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	27,484	1,087	1,527	277	29,011	1,087	13,541	842	787	176	14,327	843	43,338	1,221
Other federal government:														
Bureau of Land Management	680	213	409	121	1,089	243	111	104	66	44	177	113	1,266	260
Department of Defense and Energy	--	--	--	--	--	--	--	--	20	22	20	22	20	22
National Park Service	--	--	--	--	--	--	1,666	696	129	65	1,795	699	1,795	699
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	5	4	5	4	--	--	2	3	2	3	8	5
Total	680	213	414	121	1,094	243	1,777	697	217	81	1,995	702	3,089	718
State and local government:														
Local	62	68	34	22	96	71	--	--	21	22	21	22	117	74
State	84	56	26	16	110	58	105	94	109	72	214	129	324	141
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	146	88	60	27	206	92	105	94	130	75	235	130	441	160
Private:														
Corporate	5,991	559	1,079	170	7,070	583	--	--	--	--	--	--	7,070	583
Noncorporate private:														
Total, noncorporate private	7,119	727	3,417	282	10,537	777	--	--	--	--	--	--	10,537	777
All private	13,111	872	4,496	324	17,607	924	--	--	--	--	--	--	17,607	924
All owners	41,421	1,416	6,497	445	47,918	1,452	15,423	1,089	1,134	208	16,557	1,096	64,475	1,688

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C41: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) by Owner Group and Forest Land Status, 2010-2019: North Coast

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	335	221	6	7	341	221	534	407	--	--	534	407	876	463
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	335	221	6	7	341	221	534	407	--	--	534	407	876	463
Other federal government:														
Bureau of Land Management	603	321	--	--	603	321	371	183	--	--	371	183	973	365
Department of Defense and Energy	47	40	--	--	47	40	--	--	--	--	--	--	47	40
National Park Service	--	--	--	--	--	--	1,114	475	25	18	1,139	475	1,139	475
U.S. Fish and Wildlife Service	--	--	--	--	--	--	5	5	--	--	5	5	5	5
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	649	323	--	--	649	323	1,490	502	25	18	1,515	502	2,164	572
State and local government:														
Local	367	192	5	6	372	192	--	--	105	56	105	56	477	200
State	818	312	1	1	819	312	3,843	1,122	253	212	4,096	1,142	4,915	1,122
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	1,185	354	6	6	1,191	354	3,843	1,122	358	219	4,201	1,143	5,392	1,120
Private:														
Corporate	13,194	963	143	61	13,337	965	--	--	--	--	--	--	13,337	965
Noncorporate private:														
Total, noncorporate private	10,626	882	817	188	11,443	889	--	--	--	--	--	--	11,443	889
All private	23,819	1,167	960	198	24,779	1,171	--	--	--	--	--	--	24,779	1,171
All owners	25,989	1,281	973	198	26,962	1,284	5,867	1,294	383	220	6,250	1,313	33,211	1,774

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C42: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) by Owner Group and Forest Land Status, 2010-2019: Sierra Cascades

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	41,897	1,114	1,777	240	43,674	1,100	8,923	588	1,521	225	10,445	585	54,119	1,230
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	41,897	1,114	1,777	240	43,674	1,100	8,923	588	1,521	225	10,445	585	54,119	1,230
Other federal government:														
Bureau of Land Management	475	182	443	143	918	232	51	49	127	35	178	60	1,096	239
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	7,216	587	1,001	219	8,217	604	8,217	604
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	34	20	34	20	--	--	11	10	11	10	44	22
Total	475	182	477	144	952	233	7,267	584	1,139	220	8,406	600	9,358	621
State and local government:														
Local	177	93	133	55	310	108	--	--	99	79	99	79	408	134
State	240	141	121	84	361	164	671	268	150	53	822	273	1,183	308
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	417	169	254	100	671	196	671	268	249	95	920	284	1,591	334
Private:														
Corporate	11,085	648	1,100	201	12,186	674	--	--	--	--	--	--	12,186	674
Noncorporate private:														
Total, noncorporate private	5,509	485	4,110	274	9,619	542	--	--	--	--	--	--	9,619	542
All private	16,594	757	5,210	332	21,805	808	--	--	--	--	--	--	21,805	808
All owners	59,383	1,362	7,718	442	67,101	1,387	16,861	871	2,909	329	19,771	885	86,872	1,604

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C43: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) by Owner Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	506	137	489	87	995	160	434	119	295	89	730	148	1,725	214
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	506	137	489	87	995	160	434	119	295	89	730	148	1,725	214
Other federal government:														
Bureau of Land Management	--	--	11	6	11	6	--	--	5	4	5	4	16	7
Department of Defense and Energy	1	1	10	11	10	11	--	--	--	--	--	--	10	11
National Park Service	--	--	--	--	--	--	--	--	35	13	35	13	35	13
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	4	3	4	3	--	--	--	--	--	--	5	3
Total	1	1	25	13	25	13	--	--	40	13	40	13	65	19
State and local government:														
Local	--	--	32	21	32	21	--	--	1	1	1	1	33	21
State	--	--	--	--	--	--	44	42	39	18	83	45	83	45
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	32	21	32	21	44	42	40	18	84	45	116	49
Private:														
Corporate	33	33	23	14	56	36	--	--	--	--	--	--	56	36
Noncorporate private:														
Total, noncorporate private	56	44	390	113	446	124	--	--	--	--	--	--	446	124
All private	89	55	413	114	502	129	--	--	--	--	--	--	502	129
All owners	596	148	960	145	1,555	207	478	126	376	91	854	155	2,409	255

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C44.1: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) and Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2001-2010

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	79,548	1,665	6,446	451	85,994	1,643	26,643	1,177	3,963	371	30,606	1,178	116,600	1,837
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	79,548	1,665	6,446	451	85,994	1,643	26,643	1,177	3,963	371	30,606	1,178	116,600	1,837
Other federal government:														
Bureau of Land Management	2,192	379	1,362	188	3,554	416	245	129	291	59	535	142	4,089	432
Department of Defense and Energy	34	33	146	48	181	58	--	--	--	--	--	--	181	58
National Park Service	--	--	--	--	--	--	11,647	1,018	1,438	246	13,085	1,029	13,085	1,029
U.S. Fish and Wildlife Service	--	--	--	--	--	--	19	19	--	--	19	19	19	19
Other federal	--	--	110	57	110	57	344	223	68	59	413	231	523	238
Total	2,226	380	1,618	201	3,844	421	12,255	1,017	1,797	255	14,052	1,026	17,897	1,016
State and local government:														
Local	325	163	358	104	683	195	618	282	561	129	1,179	301	1,862	356
State	1,203	369	123	62	1,326	374	5,483	1,165	1,035	260	6,518	1,186	7,843	1,157
Other public	--	--	4	4	4	4	58	70	12	11	71	71	75	71
Total	1,529	398	485	121	2,013	416	6,160	1,182	1,608	282	7,767	1,202	9,780	1,167
Private:														
Corporate	27,805	1,093	1,543	199	29,348	1,104	--	--	--	--	--	--	29,348	1,104
Noncorporate private:														
Total, noncorporate private	28,125	1,280	13,072	500	41,197	1,319	--	--	--	--	--	--	41,197	1,319
All private	55,929	1,360	14,616	518	70,545	1,359	--	--	--	--	--	--	70,545	1,359
All owners	139,232	2,182	23,164	721	162,397	2,167	45,058	1,943	7,368	531	52,426	1,959	214,822	2,658

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C44.2: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) and Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2002-2011

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	80,339	1,672	6,332	452	86,672	1,648	26,943	1,191	4,064	381	31,007	1,189	117,678	1,845
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	80,339	1,672	6,332	452	86,672	1,648	26,943	1,191	4,064	381	31,007	1,189	117,678	1,845
Other federal government:														
Bureau of Land Management	2,220	384	1,330	189	3,550	421	257	138	289	60	546	150	4,096	439
Department of Defense and Energy	38	34	146	48	184	59	--	--	--	--	--	--	184	59
National Park Service	--	--	--	--	--	--	11,674	1,011	1,441	247	13,115	1,022	13,115	1,022
U.S. Fish and Wildlife Service	--	--	--	--	--	--	19	19			19	19	19	19
Other federal	--	--	111	57	111	57	344	224	68	60	413	231	524	238
Total	2,258	385	1,587	202	3,845	426	12,294	1,010	1,799	256	14,094	1,019	17,938	1,012
State and local government:														
Local	302	161	358	105	660	194	650	293	573	132	1,224	311	1,884	364
State	1,213	370	147	83	1,360	379	5,637	1,154	1,067	262	6,704	1,176	8,065	1,145
Other public	--	--	4	4	4	4	62	72	11	11	73	73	77	73
Total	1,515	398	509	134	2,025	420	6,349	1,173	1,652	284	8,001	1,193	10,026	1,157
Private:														
Corporate	27,649	1,082	1,829	225	29,478	1,097	--	--	--	--	--	--	29,478	1,097
Noncorporate private:														
Total, noncorporate private	28,813	1,294	12,725	489	41,538	1,330	--	--	--	--	--	--	41,538	1,330
All private	56,462	1,351	14,554	515	71,017	1,352	--	--	--	--	--	--	71,017	1,352
All owners	140,575	2,183	22,983	722	163,558	2,168	45,586	1,942	7,515	540	53,101	1,956	216,659	2,660

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C44.3: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) and Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2003-2012

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	81,028	1,637	5,941	436	86,969	1,609	27,480	1,214	4,187	388	31,667	1,212	118,636	1,855
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	81,028	1,637	5,941	436	86,969	1,609	27,480	1,214	4,187	388	31,667	1,212	118,636	1,855
Other federal government:														
Bureau of Land Management	2,374	402	1,344	188	3,718	441	323	150	281	59	603	161	4,321	457
Department of Defense and Energy	38	34	147	49	185	59	--	--	22	23	22	23	207	64
National Park Service	--	--	--	--	--	--	11,848	1,024	1,469	254	13,316	1,033	13,316	1,033
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	130	59	130	59	173	155	69	60	242	166	372	176
Total	2,411	402	1,621	202	4,033	446	12,344	1,017	1,839	264	14,183	1,023	18,216	1,010
State and local government:														
Local	337	165	360	105	698	197	655	295	580	135	1,235	314	1,933	368
State	1,291	392	153	83	1,444	401	5,694	1,156	1,029	263	6,722	1,177	8,166	1,147
Other public	--	--	4	4	4	4	63	74	12	11	76	75	80	75
Total	1,628	420	518	134	2,146	440	6,412	1,174	1,621	286	8,033	1,194	10,179	1,158
Private:														
Corporate	27,835	1,069	1,978	230	29,814	1,084	--	--	--	--	--	--	29,814	1,084
Noncorporate private:														
Total, noncorporate private	28,822	1,304	12,406	486	41,228	1,339	--	--	--	--	--	--	41,228	1,339
All private	56,658	1,345	14,385	512	71,042	1,346	--	--	--	--	--	--	71,042	1,346
All owners	141,726	2,161	22,464	710	164,190	2,143	46,235	1,961	7,647	549	53,883	1,975	218,073	2,670

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C44.4: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) and Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2004-2013

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	81,579	1,645	5,833	435	87,411	1,615	27,659	1,222	4,169	391	31,827	1,221	119,239	1,865
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	81,579	1,645	5,833	435	87,411	1,615	27,659	1,222	4,169	391	31,827	1,221	119,239	1,865
Other federal government:														
Bureau of Land Management	2,378	405	1,327	188	3,705	444	367	159	293	60	661	170	4,365	460
Department of Defense and Energy	38	34	151	49	188	60	--	--	22	23	22	23	210	64
National Park Service	--	--	--	--	--	--	12,078	1,038	1,468	258	13,546	1,046	13,546	1,046
U.S. Fish and Wildlife Service	--	--	--	--	--	--	7	8	3	3	10	8	10	8
Other federal	--	--	92	30	92	30	--	--	16	11	16	11	108	32
Total	2,415	405	1,570	195	3,985	445	12,452	1,025	1,801	262	14,254	1,030	18,239	1,015
State and local government:														
Local	345	168	386	108	732	201	677	293	558	128	1,236	312	1,967	368
State	1,330	403	154	84	1,484	411	5,728	1,161	955	253	6,683	1,180	8,167	1,147
Other public	--	--	5	4	5	4	63	74	13	11	76	75	81	75
Total	1,675	430	545	136	2,220	451	6,469	1,179	1,527	275	7,996	1,196	10,216	1,157
Private:														
Corporate	28,646	1,085	2,143	247	30,789	1,101	--	--	--	--	--	--	30,789	1,101
Noncorporate private:														
Total, noncorporate private	29,051	1,316	12,348	479	41,399	1,349	--	--	--	--	--	--	41,399	1,349
All private	57,697	1,350	14,491	513	72,188	1,350	--	--	--	--	--	--	72,188	1,350
All owners	143,366	2,171	22,438	709	165,805	2,152	46,580	1,974	7,497	545	54,077	1,985	219,881	2,680

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C44.5: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) and Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2005-2014

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	82,138	1,647	5,761	434	87,898	1,617	28,146	1,237	4,193	398	32,339	1,234	120,237	1,882
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	82,138	1,647	5,761	434	87,898	1,617	28,146	1,237	4,193	398	32,339	1,234	120,237	1,882
Other federal government:														
Bureau of Land Management	2,580	480	1,318	188	3,898	513	418	168	276	59	694	178	4,592	525
Department of Defense and Energy	39	35	157	55	196	65	--	--	22	23	22	23	217	69
National Park Service	--	--	--	--	--	--	12,076	1,036	1,445	259	13,520	1,045	13,520	1,045
U.S. Fish and Wildlife Service	--	--	--	--	--	--	7	8	3	3	10	8	10	8
Other federal	--	--	96	30	96	30	--	--	16	11	16	11	111	32
Total	2,619	480	1,571	197	4,190	516	12,501	1,024	1,761	263	14,262	1,029	18,452	1,022
State and local government:														
Local	478	190	425	110	902	221	677	293	554	126	1,232	311	2,134	378
State	1,416	407	162	82	1,578	416	5,780	1,152	964	253	6,744	1,171	8,322	1,137
Other public	--	--	5	4	5	4	63	74	13	11	76	75	81	75
Total	1,894	443	591	137	2,485	464	6,521	1,170	1,531	274	8,052	1,187	10,537	1,150
Private:														
Corporate	29,044	1,085	2,343	258	31,387	1,103	--	--	--	--	--	--	31,387	1,103
Noncorporate private:														
Total, noncorporate private	28,756	1,293	12,301	482	41,057	1,326	--	--	--	--	--	--	41,057	1,326
All private	57,800	1,318	14,644	518	72,444	1,316	--	--	--	--	--	--	72,444	1,316
All owners	144,451	2,174	22,566	712	167,017	2,153	47,168	1,977	7,485	550	54,653	1,987	221,670	2,685

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C44.6: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) and Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2006-2015

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	82,358	1,646	5,671	431	88,029	1,615	28,378	1,236	3,889	369	32,267	1,227	120,296	1,876
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	82,358	1,646	5,671	431	88,029	1,615	28,378	1,236	3,889	369	32,267	1,227	120,296	1,876
Other federal government:														
Bureau of Land Management	2,558	468	1,288	192	3,846	504	575	227	300	66	875	236	4,720	537
Department of Defense and Energy	42	38	162	55	203	67	--	--	22	23	22	23	225	71
National Park Service	--	--	--	--	--	--	12,139	1,038	1,439	261	13,578	1,047	13,578	1,047
U.S. Fish and Wildlife Service	--	--	--	--	--	--	7	8	3	3	10	8	10	8
Other federal	--	--	96	30	96	30	--	--	16	11	16	11	112	32
Total	2,600	469	1,545	201	4,145	506	12,721	1,036	1,779	267	14,500	1,042	18,645	1,024
State and local government:														
Local	462	189	431	111	893	221	707	307	536	125	1,243	323	2,136	388
State	1,686	455	133	79	1,820	462	5,865	1,156	972	257	6,837	1,175	8,657	1,159
Other public	--	--	5	4	5	4	63	74	13	12	77	75	81	75
Total	2,148	485	569	137	2,718	504	6,636	1,177	1,521	277	8,157	1,194	10,875	1,173
Private:														
Corporate	30,346	1,121	2,597	273	32,943	1,142	--	--	--	--	--	--	32,943	1,142
Noncorporate private:														
Total, noncorporate private	28,387	1,284	12,067	482	40,454	1,317	--	--	--	--	--	--	40,454	1,317
All private	58,733	1,327	14,664	522	73,397	1,327	--	--	--	--	--	--	73,397	1,327
All owners	145,840	2,181	22,449	714	168,289	2,160	47,735	1,986	7,190	533	54,925	1,994	223,213	2,691

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C44.7: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) and Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2007-2016

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	82,365	1,646	5,513	428	87,878	1,614	28,819	1,225	3,893	365	32,712	1,216	120,590	1,878
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	82,365	1,646	5,513	428	87,878	1,614	28,819	1,225	3,893	365	32,712	1,216	120,590	1,878
Other federal government:														
Bureau of Land Management	2,364	457	1,288	193	3,652	494	668	239	297	66	965	247	4,618	533
Department of Defense and Energy	47	38	166	55	212	67	--	--	22	23	22	23	234	71
National Park Service	--	--	--	--	--	--	12,066	1,038	1,439	258	13,505	1,047	13,505	1,047
U.S. Fish and Wildlife Service	--	--	--	--	--	--	7	8	3	3	10	8	10	8
Other federal	--	--	89	29	89	29	--	--	16	11	16	11	105	31
Total	2,411	457	1,543	202	3,954	496	12,742	1,030	1,777	264	14,519	1,036	18,472	1,020
State and local government:														
Local	660	240	440	112	1,100	264	733	321	546	126	1,279	337	2,379	421
State	1,638	442	154	83	1,792	451	5,881	1,164	983	260	6,864	1,184	8,656	1,164
Other public	--	--	5	4	5	4	63	74	13	12	77	75	81	75
Total	2,298	494	598	138	2,897	512	6,678	1,187	1,543	281	8,220	1,204	11,117	1,185
Private:														
Corporate	31,675	1,150	2,767	281	34,442	1,170	--	--	--	--	--	--	34,442	1,170
Noncorporate private:														
Total, noncorporate private	27,744	1,289	12,029	486	39,773	1,324	--	--	--	--	--	--	39,773	1,324
All private	59,419	1,340	14,797	527	74,215	1,340	--	--	--	--	--	--	74,215	1,340
All owners	146,492	2,190	22,451	716	168,944	2,168	48,238	1,982	7,213	530	55,451	1,989	224,395	2,704

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C44.8: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) and Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2008-2017

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	82,500	1,640	5,575	437	88,076	1,608	28,741	1,203	3,827	360	32,568	1,196	120,643	1,858
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	82,500	1,640	5,575	437	88,076	1,608	28,741	1,203	3,827	360	32,568	1,196	120,643	1,858
Other federal government:														
Bureau of Land Management	2,370	459	1,272	193	3,642	495	664	238	298	66	962	247	4,604	534
Department of Defense and Energy	47	38	165	55	212	67	--	--	20	22	20	22	232	71
National Park Service	--	--	--	--	--	--	11,915	1,035	1,433	259	13,348	1,045	13,348	1,045
U.S. Fish and Wildlife Service	--	--	--	--	--	--	7	8	3	3	10	8	10	8
Other federal	--	--	80	29	80	29	--	--	14	11	14	11	94	31
Total	2,416	459	1,517	201	3,934	498	12,586	1,028	1,768	264	14,354	1,035	18,288	1,019
State and local government:														
Local	648	240	434	112	1,082	262	748	328	504	115	1,252	340	2,334	422
State	1,650	449	151	82	1,801	457	5,867	1,166	904	250	6,771	1,186	8,573	1,171
Other public	--	--	5	4	5	4	64	75	13	11	77	76	82	76
Total	2,298	499	590	137	2,888	516	6,679	1,190	1,421	268	8,101	1,207	10,989	1,185
Private:														
Corporate	32,893	1,160	2,966	294	35,858	1,182	--	--	--	--	--	--	35,858	1,182
Noncorporate private:														
Total, noncorporate private	27,296	1,281	11,946	486	39,243	1,317	--	--	--	--	--	--	39,243	1,317
All private	60,189	1,340	14,912	533	75,101	1,338	--	--	--	--	--	--	75,101	1,338
All owners	147,404	2,185	22,595	726	169,998	2,162	48,007	1,969	7,016	521	55,022	1,979	225,021	2,687

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C44.9: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) and Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2009-2018

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	82,628	1,635	5,713	442	88,341	1,605	28,553	1,207	3,806	359	32,358	1,199	120,700	1,844
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	82,628	1,635	5,713	442	88,341	1,605	28,553	1,207	3,806	359	32,358	1,199	120,700	1,844
Other federal government:														
Bureau of Land Management	2,081	438	1,312	199	3,393	476	608	230	296	66	904	239	4,297	513
Department of Defense and Energy	43	36	174	56	217	67	--	--	20	22	20	22	237	71
National Park Service	--	--	--	--	--	--	11,863	1,026	1,467	260	13,331	1,038	13,331	1,038
U.S. Fish and Wildlife Service	--	--	--	--	--	--	7	8	3	3	10	8	10	8
Other federal	2	2	68	25	70	26	--	--	14	11	14	11	84	28
Total	2,126	438	1,555	207	3,680	479	12,478	1,021	1,800	266	14,278	1,029	17,959	1,004
State and local government:														
Local	646	239	361	86	1,007	254	752	326	568	138	1,320	346	2,328	422
State	1,742	455	163	84	1,905	464	5,892	1,168	897	250	6,789	1,188	8,693	1,167
Other public	--	--	--	--	--	--	61	73	13	11	74	74	74	74
Total	2,388	502	524	119	2,912	516	6,705	1,192	1,478	279	8,183	1,210	11,095	1,180
Private:														
Corporate	33,635	1,191	3,020	305	36,656	1,211	--	--	--	--	--	--	36,656	1,211
Noncorporate private:														
Total, noncorporate private	27,170	1,253	11,879	482	39,048	1,287	--	--	--	--	--	--	39,048	1,287
All private	60,805	1,337	14,899	537	75,704	1,332	--	--	--	--	--	--	75,704	1,332
All owners	147,948	2,184	22,691	729	170,638	2,159	47,736	1,969	7,084	527	54,819	1,980	225,458	2,673

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C44.10: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) and Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, All California (10 year averages): 2010-2019

**information combined from Table C36 and Table C45*

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	82,757	1,628	5,433	427	88,190	1,606	28,774	1,206	3,762	357	32,536	1,199	120,727	1,838
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	82,757	1,628	5,433	427	88,190	1,606	28,774	1,206	3,762	357	32,536	1,199	120,727	1,838
Other federal government:														
Bureau of Land Management	1,940	420	1,253	195	3,193	459	577	227	292	65	870	236	4,062	496
Department of Defense and Energy	51	44	182	56	233	72	--	--	20	22	20	22	253	75
National Park Service	--	--	--	--	--	--	11,793	1,030	1,497	262	13,290	1,042	13,290	1,042
U.S. Fish and Wildlife Service	--	--	--	--	--	--	7	8	3	3	10	8	10	8
Other federal	2	2	60	24	62	24	--	--	14	10	14	10	76	26
Total	1,993	421	1,494	203	3,488	462	12,378	1,025	1,826	267	14,203	1,033	17,691	1,010
State and local government:														
Local	648	239	353	84	1,001	253	754	327	567	138	1,321	346	2,322	422
State	1,739	456	173	87	1,912	465	5,959	1,175	926	251	6,885	1,195	8,797	1,173
Other public	--	--	--	--	--	--	61	73	13	11	74	74	74	74
Total	2,387	503	526	120	2,913	517	6,773	1,197	1,506	280	8,279	1,216	11,192	1,185
Private:														
Corporate	33,623	1,181	3,068	310	36,691	1,200	--	--	--	--	--	--	36,691	1,200
Noncorporate private:														
Total, noncorporate private	27,652	1,264	11,745	480	39,397	1,294	--	--	--	--	--	--	39,397	1,294
All private	61,275	1,343	14,813	539	76,088	1,337	--	--	--	--	--	--	76,088	1,337
All owners	148,413	2,180	22,266	722	170,679	2,160	47,925	1,973	7,094	526	55,019	1,985	225,698	2,670

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C45: Belowground Carbon, Dry Weight of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, 2010-2019: All California

**information combined with information from Table C36 in Table C44.10*

Ownership group	Unreserved forests						Reserved forests						All forest	
	Timberland		Other forest		Total		Productive		Other forest		Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	10,173	455	729	108	10,903	462	4,457	322	566	84	5,023	328	15,926	561
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	10,173	455	729	108	10,903	462	4,457	322	566	84	5,023	328	15,926	561
Other federal government:														
Bureau of Land Management	135	64	69	17	204	66	44	24	22	7	66	25	270	70
Department of Defense and Energy	4	4	5	3	9	5	--	--	--	--	--	--	9	5
National Park Service	--	--	--	--	--	--	1,797	217	147	36	1,943	219	1,943	219
U.S. Fish and Wildlife Service	--	--	--	--	--	--	2	2	--	--	2	2	2	2
Other federal	2	2	16	12	18	12	--	--	--	--	--	--	19	12
Total	141	64	90	20	231	67	1,843	217	169	36	2,012	219	2,243	222
State and local government:														
Local	43	20	16	7	59	21	48	25	30	15	77	29	136	36
State	73	30	7	4	80	30	270	52	57	20	327	55	407	57
Other public	--	--	--	--	--	--	1	1	--	--	1	1	1	1
Total	116	36	23	8	139	36	318	56	87	25	405	60	544	64
Private:														
Corporate	2,176	168	138	21	2,314	169	--	--	--	--	--	--	2,314	169
Noncorporate private:														
Total, noncorporate private	1,240	110	683	69	1,923	128	--	--	--	--	--	--	1,923	128
All private	3,416	193	821	71	4,237	204	--	--	--	--	--	--	4,237	204
All owners	13,846	500	1,664	131	15,510	511	6,619	392	822	94	7,441	399	22,950	638

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C46: Belowground Carbon, Dry Weight of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Ownership group	Unreserved forests						Reserved forests						All forest	
	Timberland		Other forest		Total		Productive		Other forest		Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	1	1	14	5	14	5	4	3	110	57	115	57	129	57
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	1	1	14	5	14	5	4	3	110	57	115	57	129	57
Other federal government:														
Bureau of Land Management	--	--	1	1	1	1	--	--	--	--	--	--	1	1
Department of Defense and Energy	--	--	3	3	3	3	--	--	--	--	--	--	3	3
National Park Service	--	--	--	--	--	--	--	--	12	10	12	10	12	10
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	4	3	4	3	--	--	12	10	12	10	16	11
State and local government:														
Local	--	--	9	6	9	6	48	25	18	14	65	28	74	29
State	6	4			6	4	25	15	18	11	43	19	49	19
Other public	--	--	--	--	--	--	1	1	--	--	1	1	1	1
Total	6	4	9	6	15	7	73	29	35	18	109	33	124	33
Private:														
Corporate	49	34	21	9	71	35	--	--	--	--	--	--	71	35
Noncorporate private:														
Total, noncorporate private	106	29	136	30	242	42	--	--	--	--	--	--	242	42
All private	155	45	157	31	313	54	--	--	--	--	--	--	313	54
All owners	162	45	184	32	346	55	78	29	158	60	236	67	582	86

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C47: Belowground Carbon, Dry Weight of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, 2010-2019: Central Valley

Ownership group	Unreserved forests						Reserved forests						All forest	
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal government:														
Bureau of Land Management	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
State and local government:														
Local	--	--	2	2	2	2	--	--	--	--	--	--	2	2
State	--	--	--	--	--	--	--	--	3	3	3	3	3	3
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	2	2	2	2	--	--	3	3	3	3	5	4
Private:														
Corporate	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Noncorporate private:														
Total, noncorporate private	--	--	11	6	11	6	--	--	--	--	--	--	11	6
All private	--	--	11	6	11	6	--	--	--	--	--	--	11	6
All owners	--	--	12	6	12	6	--	--	3	3	3	3	16	7

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C48: Belowground Carbon, Dry Weight of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, 2010-2019: Eastside

Ownership group	Unreserved forests						Reserved forests						All forest	
	Timberland		Other forest		Total		Productive		Other forest		Total		All forest	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	204	37	73	28	277	47	27	11	25	10	52	15	329	49
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	204	37	73	28	277	47	27	11	25	10	52	15	329	49
Other federal government:														
Bureau of Land Management	1	1	13	5	14	5	--	--	4	2	4	2	18	6
Department of Defense and Energy	--	--	2	1	2	1	--	--	--	--	--	--	2	1
National Park Service	--	--	--	--	--	--	--	--	1	1	1	1	1	1
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	1	1	15	5	16	5	--	--	6	2	6	2	22	6
State and local government:														
Local	--	--	--	--	--	--	--	--	--	--	--	--	--	--
State	--	--	--	--	--	--	9	9	--	--	9	9	9	9
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	9	9	--	--	9	9	9	9
Private:														
Corporate	44	19			44	19	--	--	--	--	--	--	44	19
Noncorporate private:														
Total, noncorporate private	10	4	3	2	13	5	--	--	--	--	--	--	13	5
All private	54	20	3	2	57	20	--	--	--	--	--	--	57	20
All owners	259	42	91	29	350	51	36	14	31	10	66	18	416	54

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C49: Belowground Carbon, Dry Weight of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Ownership group	Unreserved forests						Reserved forests						All forest	
	Timberland		Other forest		Total		Productive		Other forest		Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	4,083	335	203	63	4,286	339	2,637	263	110	34	2,747	265	7,033	426
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	4,083	335	203	63	4,286	339	2,637	263	110	34	2,747	265	7,033	426
Other federal government:														
Bureau of Land Management	110	63	11	5	121	63	5	4	--	--	5	4	125	64
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	71	27	3	3	75	27	75	27
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	2	2	--	--	2	2	--	--					2	2
Total	112	63	11	5	123	63	76	27	3	3	80	27	202	69
State and local government:														
Local	1	1	--	--	1	1	--	--	4	4	4	4	4	4
State	4	6	2	2	7	6	1	1	7	6	9	6	15	9
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	5	6	2	2	7	6	1	1	11	7	12	7	20	9
Private:														
Corporate	379	63	42	12	422	64	--	--	--	--	--	--	422	64
Noncorporate private:														
Total, noncorporate private	351	59	140	21	491	63	--	--	--	--	--	--	491	63
All private	730	85	183	24	913	88	--	--	--	--	--	--	913	88
All owners	4,930	352	399	68	5,329	357	2,714	264	124	35	2,839	266	8,167	441

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C50: Belowground Carbon, Dry Weight of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, 2010-2019: North Coast

Ownership group	Unreserved forests						Reserved forests						All forest	
	Timberland		Other forest		Total		Productive		Other forest		Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	26	17	1	1	27	17	31	25	--	--	31	25	58	30
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	26	17	1	1	27	17	31	25	--	--	31	25	58	30
Other federal government:														
Bureau of Land Management	8	6	--	--	8	6	35	23	--	--	35	23	43	24
Department of Defense and Energy	4	4	--	--	4	4	--	--	--	--	--	--	4	4
National Park Service	--	--	--	--	--	--	110	68	--	--	110	68	110	68
U.S. Fish and Wildlife Service	--	--	--	--	--	--	2	2	--	--	2	2	2	2
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	12	7	--	--	12	7	147	72	--	--	147	72	160	72
State and local government:														
Local	31	19	--	--	31	19	--	--	2	1	2	1	33	19
State	41	22	1	1	41	22	182	49	4	4	186	50	227	51
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	71	29	1	1	72	29	182	49	6	4	188	50	260	53
Private:														
Corporate	1,089	141	10	5	1,099	141	--	--	--	--	--	--	1,099	141
Noncorporate private:														
Total, noncorporate private	362	50	21	7	383	51	--	--	--	--	--	--	383	51
All private	1,451	148	30	9	1,482	148	--	--	--	--	--	--	1,482	148
All owners	1,561	151	32	9	1,593	151	360	91	6	4	367	91	1,960	175

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C51: Belowground Carbon, Dry Weight of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, 2010-2019: Sierra Cascades

Ownership group	Unreserved forests						Reserved forests						All forest	
	Timberland		Other forest		Total		Productive		Other forest		Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	5,716	308	346	80	6,062	313	1,646	187	265	47	1,911	190	7,973	363
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	5,716	308	346	80	6,062	313	1,646	187	265	47	1,911	190	7,973	363
Other federal government:														
Bureau of Land Management	15	8	43	15	58	17	5	5	16	6	21	8	79	19
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	1,615	211	122	34	1,737	212	1,737	212
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	4	2	4	2	--	--	--	--	--	--	4	2
Total	15	8	47	15	62	17	1,620	211	138	34	1,758	212	1,820	212
State and local government:														
Local	11	7	4	2	16	7	--	--	3	2	3	2	18	7
State	22	20	4	3	26	20	43	16	9	6	53	18	78	26
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	34	21	8	4	41	22	43	16	12	7	55	18	97	27
Private:														
Corporate	614	69	59	13	673	70	--	--	--	--	--	--	673	70
Noncorporate private:														
Total, noncorporate private	398	77	330	57	728	95	--	--	--	--	--	--	728	95
All private	1,012	101	388	58	1,401	116	--	--	--	--	--	--	1,401	116
All owners	6,777	325	789	100	7,566	335	3,310	282	415	58	3,724	285	11,290	435

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C52: Belowground Carbon, Dry Weight of Dead Trees (>= 5 inch) by Owner Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Ownership group	Unreserved forests						Reserved forests						All forest	
	Timberland		Other forest		Total		Productive		Other forest		Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	145	56	92	21	237	59	112	41	56	21	167	45	404	74
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	145	56	92	21	237	59	112	41	56	21	167	45	404	74
Other federal government:														
Bureau of Land Management	--	--	1	1	1	1	--	--	1	1	1	1	3	1
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	--	--	8	3	8	3	8	3
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	13	11	13	11	--	--	--	--	--	--	13	11
Total	--	--	14	11	14	11	--	--	10	3	10	3	24	12
State and local government:														
Local	--	--	1	1	1	1	--	--	4	3	4	3	5	3
State	--	--	--	--	--	--	9	7	16	14	25	15	25	15
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	1	1	1	1	9	7	20	14	29	15	30	15
Private:														
Corporate	--	--	6	5	6	5	--	--	--	--	--	--	6	5
Noncorporate private:														
Total, noncorporate private	13	9	44	14	56	17	--	--	--	--	--	--	56	17
All private	13	9	49	15	62	18	--	--	--	--	--	--	62	18
All owners	157	57	156	28	313	63	121	42	85	25	206	48	519	79

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C53: Soil Organic Carbon by Owner Group and Forest Land Status, 2010-2019: All California

**information duplicated in Table C61.10*

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	411,967.95	5,115.69	95,521.77	3,977.93	507,489.71	5,110.11	132,597.24	4,208.87	55,381.97	3,399.41	187,979.21	4,417.17	695,468.92	5,579.07
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	411,967.95	5,115.69	95,521.77	3,977.93	507,489.71	5,110.11	132,597.24	4,208.87	55,381.97	3,399.41	187,979.21	4,417.17	695,468.92	5,579.07
Other federal government:														
Bureau of Land Management	9,996.11	1,535.36	34,895.35	2,741.24	44,891.45	3,041.91	2,233.78	805.65	7,113.76	1,200.07	9,347.54	1,440.91	54,238.99	3,225.53
Department of Defense and Energy	691.36	401.12	3,085.47	777.99	3,776.83	875.29	--	--	178.60	198.76	178.60	198.76	3,955.42	897.58
National Park Service	--	--	--	--	--	--	43,590.05	2,539.71	18,836.40	2,116.65	62,426.45	3,100.03	62,426.45	3,100.03
U.S. Fish and Wildlife Service	--	--	--	--	--	--	154.14	158.28	18.78	18.12	172.93	159.32	172.93	159.32
Other federal	139.83	158.04	1,568.05	543.24	1,707.87	565.77	--	--	161.90	96.22	161.90	96.22	1,869.77	573.59
Total	10,827.29	1,586.36	39,548.86	2,848.52	50,376.16	3,147.11	45,977.97	2,560.54	26,309.44	2,356.45	72,287.41	3,185.91	122,663.56	3,671.05
State and local government:														
Local	2,581.36	840.15	5,164.41	1,021.04	7,745.78	1,343.46	1,801.46	698.43	5,369.61	1,009.32	7,171.07	1,146.79	14,916.85	1,717.91
State	4,657.41	1,064.75	2,537.83	781.64	7,195.24	1,325.74	12,726.86	1,253.75	9,449.26	1,345.59	22,176.12	1,784.93	29,371.36	1,890.70
Other public	--	--	37.96	35.87	37.96	35.87	207.45	248.99	368.72	320.67	576.17	405.99	614.13	407.57
Total	7,238.78	1,330.45	7,740.20	1,267.81	14,978.97	1,849.59	14,735.77	1,385.02	15,187.59	1,556.54	29,923.36	1,929.80	44,902.34	2,172.94
Private:														
Corporate	196,756.44	4,737.64	40,326.70	2,982.76	237,083.14	5,364.07	--	--	--	--	--	--	237,083.14	5,364.07
Noncorporate private:														
Total, noncorporate private	120,887.21	4,689.14	173,503.53	5,011.77	294,390.74	6,279.10	--	--	--	--	--	--	294,390.74	6,279.10
All private	317,643.65	4,659.52	213,830.23	5,268.39	531,473.88	5,744.04	--	--	--	--	--	--	531,473.88	5,744.04
All owners	747,677.67	7,031.93	356,641.06	7,217.27	1,104,318.73	8,143.29	193,310.98	5,082.82	96,879.00	4,417.22	290,189.98	5,735.57	1,394,508.71	8,411.34

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C54: Soil Organic Carbon by Owner Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	41.92	53.11	2,769.62	720.01	2,811.54	721.97	1,324.20	576.90	5,884.24	1,127.83	7,208.44	1,228.28	10,019.98	1,424.75
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	41.92	53.11	2,769.62	720.01	2,811.54	721.97	1,324.20	576.90	5,884.24	1,127.83	7,208.44	1,228.28	10,019.98	1,424.75
Other federal government:														
Bureau of Land Management	--	--	1,587.44	603.75	1,587.44	603.75	--	--	352.84	274.91	352.84	274.91	1,940.28	661.79
Department of Defense and Energy	--	--	1,880.77	598.72	1,880.77	598.72	--	--	--	--	--	--	1,880.77	598.72
National Park Service	--	--	--	--	--	--	--	--	548.18	396.86	548.18	396.86	548.18	396.86
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	139.88	165.11	139.88	165.11	--	--	6.66	7.19	6.66	7.19	146.55	165.26
Total	--	--	3,608.09	838.42	3,608.09	838.42	--	--	907.68	482.83	907.68	482.83	4,515.77	964.00
State and local government:														
Local	--	--	1,164.15	452.02	1,164.15	452.02	1,801.46	698.43	3,209.91	772.14	5,011.36	953.07	6,175.52	1,022.26
State	1,122.65	543.91	434.75	292.16	1,557.40	634.29	1,781.09	750.91	3,463.55	802.84	5,244.64	1,088.75	6,802.04	1,249.99
Other public	--	--	--	--	--	--	207.45	248.99	368.72	320.67	576.17	405.99	576.17	405.99
Total	1,122.65	543.91	1,598.91	538.22	2,721.55	776.86	3,790.00	1,020.87	7,042.18	1,072.89	10,832.18	1,361.63	13,553.73	1,499.95
Private:														
Corporate	1,951.41	733.09	5,309.52	1,052.09	7,260.93	1,280.58	--	--	--	--	--	--	7,260.93	1,280.58
Noncorporate private:														
Total, noncorporate private	7,223.25	1,394.67	28,662.64	2,429.06	35,885.90	2,785.97	--	--	--	--	--	--	35,885.90	2,785.97
All private	9,174.66	1,570.53	33,972.16	2,604.85	43,146.82	3,023.59	--	--	--	--	--	--	43,146.82	3,023.59
All owners	10,339.23	1,665.81	41,948.78	2,883.51	52,288.00	3,311.65	5,114.20	1,172.60	13,834.10	1,629.79	18,948.30	1,896.27	71,236.30	3,766.63

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C55: Soil Organic Carbon by Owner Group and Forest Land Status, 2010-2019: Central Valley

Ownership group	Unreserved forests						Reserved forests						All forest land	
	Timberland		Other forest		Total		Productive		Other forest		Total		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal government:														
Bureau of Land Management	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	18.78	18.12	18.78	18.12	18.78	18.12
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	18.78	18.12	18.78	18.12	18.78	18.12
State and local government:														
Local	--	--	132.18	95.74	132.18	95.74	--	--	--	--	--	--	132.18	95.74
State	--	--	--	--	--	--	--	--	236.74	223.69	236.74	223.69	236.74	223.69
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	132.18	95.74	132.18	95.74	--	--	236.74	223.69	236.74	223.69	368.92	243.21
Private:														
Corporate	--	--	147.82	161.05	147.82	161.05	--	--	--	--	--	--	147.82	161.05
Noncorporate private:														
Total, noncorporate private	--	--	2,984.72	757.57	2,984.72	757.57	--	--	--	--	--	--	2,984.72	757.57
All private	--	--	3,132.54	774.50	3,132.54	774.50	--	--	--	--	--	--	3,132.54	774.50
All owners	--	--	3,264.72	780.40	3,264.72	780.40	--	--	255.52	224.42	255.52	224.42	3,520.24	811.93

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C56: Soil Organic Carbon by Owner Group and Forest Land Status, 2010-2019: Eastside

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	27,136.98	1,905.58	29,005.54	2,090.14	56,142.52	2,586.83	2,790.07	907.53	4,248.21	972.06	7,038.28	1,324.93	63,180.79	2,886.23
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	27,136.98	1,905.58	29,005.54	2,090.14	56,142.52	2,586.83	2,790.07	907.53	4,248.21	972.06	7,038.28	1,324.93	63,180.79	2,886.23
Other federal government:														
Bureau of Land Management	1,086.84	525.29	17,746.12	2,033.74	18,832.96	2,075.49	--	--	1,714.06	614.51	1,714.06	614.51	20,547.02	2,135.13
Department of Defense and Energy	--	--	1,119.74	489.88	1,119.74	489.88	--	--	--	--	--	--	1,119.74	489.88
National Park Service	--	--	--	--	--	--	--	--	2,191.45	635.99	2,191.45	635.99	2,191.45	635.99
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	1,086.84	525.29	18,865.86	2,080.83	19,952.69	2,117.84	--	--	3,905.52	868.17	3,905.52	868.17	23,858.21	2,218.20
State and local government:														
Local	--	--	--	--	--	--	--	--	--	--	--	--	--	--
State	--	--	--	--	--	--	305.58	335.39	217.86	234.91	523.44	409.48	523.44	409.48
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	305.58	335.39	217.86	234.91	523.44	409.48	523.44	409.48
Private:														
Corporate	9,940.92	1,568.64	3,134.55	890.08	13,075.47	1,818.92	--	--	--	--	--	--	13,075.47	1,818.92
Noncorporate private:														
Total, noncorporate private	3,545.37	929.26	5,361.83	1,162.65	8,907.20	1,499.84	--	--	--	--	--	--	8,907.20	1,499.84
All private	13,486.30	1,816.07	8,496.38	1,459.91	21,982.67	2,342.14	--	--	--	--	--	--	21,982.67	2,342.14
All owners	41,710.11	2,693.22	56,367.77	3,294.41	98,077.89	4,073.31	3,095.65	967.53	8,371.58	1,324.32	11,467.23	1,636.10	109,545.12	4,338.00

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C57: Soil Organic Carbon by Owner Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	131,438.86	3,906.75	17,092.37	2,083.49	148,531.23	3,991.49	70,193.55	3,329.01	12,780.43	1,948.19	82,973.98	3,544.44	231,505.21	4,476.85
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	131,438.86	3,906.75	17,092.37	2,083.49	148,531.23	3,991.49	70,193.55	3,329.01	12,780.43	1,948.19	82,973.98	3,544.44	231,505.21	4,476.85
Other federal government:														
Bureau of Land Management	4,109.78	1,040.37	4,924.57	1,126.02	9,034.35	1,507.14	292.20	274.26	1,087.95	559.18	1,380.15	622.82	10,414.49	1,600.18
Department of Defense and Energy	--	--	--	--	--	--	--	--	178.60	198.76	178.60	198.76	178.60	198.76
National Park Service	--	--	--	--	--	--	2,873.54	864.71	1,876.91	739.55	4,750.46	1,137.96	4,750.46	1,137.96
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	139.83	158.04	176.74	147.52	316.57	216.19	--	--	35.41	41.79	35.41	41.79	351.98	220.20
Total	4,249.60	1,051.56	5,101.31	1,135.55	9,350.91	1,520.87	3,165.75	887.35	3,178.87	944.50	6,344.61	1,296.06	15,695.53	1,880.02
State and local government:														
Local	225.47	248.01	629.43	423.59	854.90	490.85	--	--	244.42	230.12	244.42	230.12	1,099.32	542.12
State	344.93	255.46	776.84	438.33	1,121.77	507.34	253.92	206.78	812.27	475.94	1,066.19	543.31	2,187.95	743.36
Other public	--	--	37.96	35.87	37.96	35.87	--	--	--	--	--	--	37.96	35.87
Total	570.40	356.05	1,444.23	610.61	2,014.63	706.84	253.92	206.78	1,056.69	528.65	1,310.61	590.03	3,325.23	918.04
Private:														
Corporate	43,659.09	3,366.59	14,665.79	1,881.12	58,324.88	3,825.93	--	--	--	--	--	--	58,324.88	3,825.93
Noncorporate private:														
Total, noncorporate private	36,266.18	3,110.28	45,371.34	3,084.96	81,637.52	4,341.80	--	--	--	--	--	--	81,637.52	4,341.80
All private	79,925.28	4,360.72	60,037.13	3,518.77	139,962.40	5,511.87	--	--	--	--	--	--	139,962.40	5,511.87
All owners	216,184.14	5,961.29	83,675.03	4,292.34	299,859.17	6,987.44	73,613.22	3,438.58	17,015.98	2,228.67	90,629.20	3,806.18	390,488.37	7,350.78

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C58: Soil Organic Carbon by Owner Group and Forest Land Status, 2010-2019: North Coast

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	1,162.21	603.27	242.23	280.60	1,404.44	665.34	629.15	467.78	--	--	629.15	467.78	2,033.59	811.65
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	1,162.21	603.27	242.23	280.60	1,404.44	665.34	629.15	467.78	--	--	629.15	467.78	2,033.59	811.65
Other federal government:														
Bureau of Land Management	1,493.06	581.42	--	--	1,493.06	581.42	1,660.92	719.01	--	--	1,660.92	719.01	3,153.97	918.67
Department of Defense and Energy	614.93	393.69	3.44	3.72	618.37	393.71	--	--	--	--	--	--	618.37	393.71
National Park Service	--	--	--	--	--	--	2,162.92	797.69	273.02	267.35	2,435.94	839.16	2,435.94	839.16
U.S. Fish and Wildlife Service	--	--	--	--	--	--	154.14	158.28	--	--	154.14	158.28	154.14	158.28
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	2,107.98	693.67	3.44	3.72	2,111.43	693.68	3,977.98	1,065.57	273.02	267.35	4,251.00	1,096.09	6,362.43	1,245.88
State and local government:														
Local	1,115.38	507.36	323.84	229.96	1,439.22	606.70	--	--	1,426.22	614.48	1,426.22	614.48	2,865.44	863.52
State	2,214.48	758.20	87.32	79.28	2,301.80	762.34	6,625.11	1,013.47	468.70	322.12	7,093.81	1,069.71	9,395.61	1,040.99
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	3,329.87	879.93	411.15	243.24	3,741.02	944.05	6,625.11	1,013.47	1,894.92	691.84	8,520.03	1,229.38	12,261.05	1,261.24
Private:														
Corporate	50,948.00	3,111.56	1,235.20	523.21	52,183.20	3,155.76	--	--	--	--	--	--	52,183.20	3,155.76
Noncorporate private:														
Total, noncorporate private	37,026.19	2,812.10	6,247.91	1,162.55	43,274.10	2,998.73	--	--	--	--	--	--	43,274.10	2,998.73
All private	87,974.19	3,676.03	7,483.11	1,274.79	95,457.29	3,841.79	--	--	--	--	--	--	95,457.29	3,841.79
All owners	94,574.25	3,891.82	8,139.94	1,327.78	102,714.19	4,070.30	11,232.24	1,543.17	2,167.94	741.70	13,400.18	1,712.19	116,114.37	4,301.04

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C59: Soil Organic Carbon by Owner Group and Forest Land Status, 2010-2019: Sierra Cascades

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	246,787.04	4,384.66	32,627.37	2,531.46	279,414.41	4,391.39	51,610.90	2,714.33	26,120.57	2,345.65	77,731.47	2,967.23	357,145.88	5,038.16
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	246,787.04	4,384.66	32,627.37	2,531.46	279,414.41	4,391.39	51,610.90	2,714.33	26,120.57	2,345.65	77,731.47	2,967.23	357,145.88	5,038.16
Other federal government:														
Bureau of Land Management	3,306.44	922.74	9,585.98	1,485.32	12,892.42	1,730.71	280.66	258.60	3,277.32	783.24	3,557.98	824.83	16,450.40	1,889.25
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	38,553.58	2,380.16	10,786.25	1,686.49	49,339.84	2,727.68	49,339.84	2,727.68
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	606.82	354.89	606.82	354.89	--	--	81.47	77.28	81.47	77.28	688.29	363.21
Total	3,306.44	922.74	10,192.80	1,519.92	13,499.24	1,760.49	38,834.24	2,373.10	14,145.05	1,816.77	52,979.29	2,754.91	66,478.52	3,056.33
State and local government:														
Local	1,240.51	622.04	2,333.32	751.05	3,573.83	975.20	--	--	342.63	262.23	342.63	262.23	3,916.46	1,009.84
State	975.35	497.35	1,238.92	572.00	2,214.27	757.99	3,209.34	873.15	2,463.11	757.04	5,672.45	1,155.64	7,886.72	1,347.01
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	2,215.86	796.42	3,572.24	936.43	5,788.10	1,222.81	3,209.34	873.15	2,805.74	801.17	6,015.08	1,185.02	11,803.18	1,649.53
Private:														
Corporate	90,105.84	3,955.12	14,042.01	1,800.22	104,147.84	4,319.68	--	--	--	--	--	--	104,147.84	4,319.68
Noncorporate private:														
Total, noncorporate private	36,272.51	2,821.58	77,368.36	3,824.32	113,640.86	4,608.01	--	--	--	--	--	--	113,640.86	4,608.01
All private	126,378.35	4,412.77	91,410.36	4,062.17	217,788.71	5,759.57	--	--	--	--	--	--	217,788.71	5,759.57
All owners	378,687.68	6,275.77	137,802.77	5,067.00	516,490.45	7,439.82	93,654.47	3,707.32	43,071.36	3,072.34	136,725.84	4,210.58	653,216.29	8,177.41

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C60: Soil Organic Carbon by Owner Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	5,400.94	1,111.04	13,784.63	1,512.01	19,185.57	1,753.87	6,049.37	1,267.34	6,348.53	1,185.64	12,397.89	1,670.55	31,583.47	2,394.24
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	5,400.94	1,111.04	13,784.63	1,512.01	19,185.57	1,753.87	6,049.37	1,267.34	6,348.53	1,185.64	12,397.89	1,670.55	31,583.47	2,394.24
Other federal government:														
Bureau of Land Management	--	--	1,051.23	424.73	1,051.23	424.73	--	--	681.59	380.83	681.59	380.83	1,732.83	568.92
Department of Defense and Energy	76.43	76.87	81.53	93.96	157.95	121.39	--	--	--	--	--	--	157.95	121.39
National Park Service	--	--	--	--	--	--	--	--	3,160.58	782.76	3,160.58	782.76	3,160.58	782.76
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	644.61	346.62	644.61	346.62	--	--	38.35	38.57	38.35	38.57	682.96	348.76
Total	76.43	76.87	1,777.36	556.16	1,853.79	561.44	--	--	3,880.53	869.81	3,880.53	869.81	5,734.32	1,030.85
State and local government:														
Local	--	--	581.49	291.44	581.49	291.44	--	--	146.43	127.35	146.43	127.35	727.92	313.02
State	--	--	--	--	--	--	551.83	353.73	1,787.04	604.66	2,338.87	692.65	2,338.87	692.65
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	581.49	291.44	581.49	291.44	551.83	353.73	1,933.47	613.28	2,485.30	700.19	3,066.79	751.88
Private:														
Corporate	151.18	149.63	1,791.83	658.39	1,943.01	675.18	--	--	--	--	--	--	1,943.01	675.18
Noncorporate private:														
Total, noncorporate private	553.70	334.68	7,506.74	1,213.61	8,060.44	1,278.04	--	--	--	--	--	--	8,060.44	1,278.04
All private	704.88	366.60	9,298.56	1,379.19	10,003.44	1,443.64	--	--	--	--	--	--	10,003.44	1,443.64
All owners	6,182.25	1,172.48	25,442.05	2,133.93	31,624.30	2,350.43	6,601.19	1,315.78	12,162.52	1,592.60	18,763.72	2,008.86	50,388.02	3,066.88

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C61.1: Soil Organic Carbon by Owner Group and Forest Land Status, All California (10 year averages): 2001-2010

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	417,521.17	5,212.75	117,832.34	4,336.35	535,353.51	5,261.27	125,385.89	4,077.13	55,079.28	3,373.92	180,465.17	4,313.13	715,818.68	5,411.28
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	417,521.17	5,212.75	117,832.34	4,336.35	535,353.51	5,261.27	125,385.89	4,077.13	55,079.28	3,373.92	180,465.17	4,313.13	715,818.68	5,411.28
Other federal government:														
Bureau of Land Management	12,733.60	1,791.53	42,966.86	3,098.58	55,700.46	3,488.06	1,097.10	538.78	8,520.87	1,274.82	9,617.97	1,383.17	65,318.43	3,627.60
Department of Defense and Energy	266.96	255.26	2,748.08	736.15	3,015.04	776.21	--	--	--	--	--	--	3,015.04	776.21
National Park Service	--	--	--	--	--	--	43,167.64	2,538.96	19,495.78	2,117.91	62,663.42	3,103.77	62,663.42	3,103.77
U.S. Fish and Wildlife Service	--	--	--	--	--	--	252.28	250.57	132.83	134.24	385.11	284.27	385.11	284.27
Other federal	--	--	3,047.51	799.25	3,047.51	799.25	772.68	500.36	619.50	355.12	1,392.18	613.57	4,439.69	1,006.92
Total	13,000.56	1,803.45	48,762.45	3,220.95	61,763.01	3,586.19	45,289.70	2,545.64	28,768.98	2,398.78	74,058.69	3,220.88	135,821.70	4,040.84
State and local government:														
Local	1,606.17	611.13	4,050.68	923.20	5,656.84	1,115.07	1,678.12	741.71	6,429.21	1,066.39	8,107.33	1,237.42	13,764.18	1,624.36
State	3,793.38	997.52	1,627.32	606.50	5,420.71	1,164.87	11,915.69	1,361.97	10,044.61	1,408.90	21,960.30	1,870.50	27,381.01	1,939.03
Other public	--	--	288.63	257.93	288.63	257.93	199.38	239.51	458.85	337.23	658.22	413.63	946.85	487.46
Total	5,399.55	1,159.49	5,966.63	1,133.34	11,366.18	1,620.93	13,793.20	1,473.92	16,932.67	1,620.31	30,725.86	2,006.28	42,092.04	2,174.53
Private:														
Corporate	179,636.73	5,024.98	21,187.90	2,200.36	200,824.64	5,366.90	--	--	--	--	--	--	200,824.64	5,366.90
Noncorporate private:														
Total, noncorporate private	146,766.71	5,151.01	206,459.40	5,381.59	353,226.11	6,770.65	--	--	--	--	--	--	353,226.11	6,770.65
All private	326,403.44	4,917.11	227,647.31	5,506.40	554,050.75	6,048.90	--	--	--	--	--	--	554,050.75	6,048.90
All owners	762,324.72	7,224.77	400,208.73	7,672.19	1,162,533.45	8,465.06	184,468.79	4,979.30	100,780.93	4,442.10	285,249.72	5,674.10	1,447,783.17	8,486.58

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C61.2: Soil Organic Carbon by Owner Group and Forest Land Status, All California (10 year averages): 2002-2011

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	417,744.70	5,223.33	113,309.12	4,293.49	531,053.82	5,242.86	126,174.34	4,072.29	55,159.65	3,383.48	181,333.99	4,314.09	712,387.81	5,440.54
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	417,744.70	5,223.33	113,309.12	4,293.49	531,053.82	5,242.86	126,174.34	4,072.29	55,159.65	3,383.48	181,333.99	4,314.09	712,387.81	5,440.54
Other federal government:														
Bureau of Land Management	12,796.01	1,796.19	42,550.66	3,089.38	55,346.67	3,479.53	1,101.24	539.35	8,488.28	1,286.14	9,589.52	1,393.83	64,936.19	3,625.27
Department of Defense and Energy	367.12	278.34	2,758.41	737.45	3,125.52	784.73	--	--	--	--	--	--	3,125.52	784.73
National Park Service	--	--	--	--	--	--	43,237.10	2,538.26	19,278.69	2,098.61	62,515.78	3,090.30	62,515.78	3,090.30
U.S. Fish and Wildlife Service	--	--	--	--	--	--	252.28	250.76	133.37	134.61	385.65	284.60	385.65	284.60
Other federal	--	--	3,062.77	802.31	3,062.77	802.31	772.68	500.73	619.69	355.40	1,392.37	614.04	4,455.14	1,009.63
Total	13,163.13	1,810.25	48,371.83	3,212.66	61,534.96	3,576.79	45,363.30	2,545.02	28,520.02	2,389.84	73,883.32	3,214.90	135,418.28	4,042.37
State and local government:														
Local	1,249.45	533.26	3,991.83	917.41	5,241.28	1,069.41	1,699.95	746.33	6,387.69	1,055.17	8,087.64	1,228.13	13,328.91	1,588.88
State	3,844.98	999.54	1,639.23	610.15	5,484.21	1,168.20	12,196.43	1,311.27	10,354.78	1,420.52	22,551.22	1,845.24	28,035.43	1,895.41
Other public	--	--	294.18	262.65	294.18	262.65	210.30	246.43	308.22	288.40	518.52	379.34	812.71	461.39
Total	5,094.43	1,122.01	5,925.24	1,131.68	11,019.67	1,592.92	14,106.68	1,423.43	17,050.70	1,611.91	31,157.38	1,977.52	42,177.05	2,108.93
Private:														
Corporate	178,034.65	4,994.34	25,032.19	2,403.39	203,066.84	5,411.08	--	--	--	--	--	--	203,066.84	5,411.08
Noncorporate private:														
Total, noncorporate private	146,156.62	5,127.69	200,176.09	5,319.75	346,332.71	6,721.72	--	--	--	--	--	--	346,332.71	6,721.72
All private	324,191.27	4,874.72	225,208.28	5,473.69	549,399.55	5,994.81	--	--	--	--	--	--	549,399.55	5,994.81
All owners	760,193.53	7,205.53	392,814.47	7,624.93	1,153,008.00	8,423.88	185,644.33	4,960.66	100,730.36	4,441.49	286,374.69	5,661.55	1,439,382.69	8,486.89

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C61.3: Soil Organic Carbon by Owner Group and Forest Land Status, All California (10 year averages): 2003-2012

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	418,468.68	5,182.13	109,285.09	4,241.81	527,753.77	5,192.09	126,704.08	4,049.23	55,915.87	3,392.91	182,619.95	4,286.75	710,373.72	5,471.35
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	418,468.68	5,182.13	109,285.09	4,241.81	527,753.77	5,192.09	126,704.08	4,049.23	55,915.87	3,392.91	182,619.95	4,286.75	710,373.72	5,471.35
Other federal government:														
Bureau of Land Management	13,079.55	1,805.33	41,439.07	3,036.50	54,518.62	3,442.25	1,369.20	593.14	8,044.44	1,259.19	9,413.63	1,391.07	63,932.25	3,587.94
Department of Defense and Energy	367.12	278.50	2,777.83	740.86	3,144.95	787.98	--	--	193.48	207.33	193.48	207.33	3,338.43	814.80
National Park Service	--	--	--	--	--	--	43,406.31	2,557.48	18,898.74	2,094.83	62,305.04	3,082.45	62,305.04	3,082.45
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	3,579.50	881.15	3,579.50	881.15	420.69	376.33	620.78	355.80	1,041.47	517.90	4,620.97	1,021.39
Total	13,446.67	1,820.17	47,796.40	3,183.04	61,243.07	3,558.47	45,196.19	2,547.15	27,757.43	2,379.78	72,953.62	3,174.25	134,196.70	3,988.07
State and local government:														
Local	1,478.46	590.77	3,997.95	920.17	5,476.41	1,101.53	1,711.78	751.26	6,373.94	1,067.16	8,085.72	1,247.83	13,562.13	1,624.64
State	3,863.09	1,003.12	1,933.18	676.20	5,796.27	1,206.83	12,575.18	1,277.50	10,124.73	1,415.37	22,699.91	1,820.18	28,496.18	1,878.38
Other public	--	--	294.18	262.79	294.18	262.79	216.23	253.51	330.40	298.84	546.63	391.88	840.81	471.84
Total	5,341.54	1,153.56	6,225.31	1,169.46	11,566.86	1,639.03	14,503.19	1,390.13	16,829.07	1,589.00	31,332.26	1,936.42	42,899.12	2,087.36
Private:														
Corporate	179,702.33	4,980.99	27,010.10	2,488.52	206,712.43	5,426.67	--	--	--	--	--	--	206,712.43	5,426.67
Noncorporate private:														
Total, noncorporate private	143,935.14	5,088.98	196,500.31	5,308.61	340,435.44	6,718.22	--	--	--	--	--	--	340,435.44	6,718.22
All private	323,637.47	4,856.55	223,510.41	5,458.81	547,147.87	5,996.46	--	--	--	--	--	--	547,147.87	5,996.46
All owners	760,894.36	7,165.40	386,817.21	7,579.49	1,147,711.57	8,386.78	186,403.46	4,951.41	100,502.37	4,435.49	286,905.84	5,631.06	1,434,617.41	8,511.20

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C61.4: Soil Organic Carbon by Owner Group and Forest Land Status, All California (10 year averages): 2004-2013

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	416,594.20	5,155.13	106,910.24	4,206.10	523,504.44	5,166.10	126,022.17	4,029.86	55,442.00	3,421.54	181,464.17	4,283.52	704,968.61	5,499.04
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	416,594.20	5,155.13	106,910.24	4,206.10	523,504.44	5,166.10	126,022.17	4,029.86	55,442.00	3,421.54	181,464.17	4,283.52	704,968.61	5,499.04
Other federal government:														
Bureau of Land Management	12,938.48	1,797.98	39,987.10	2,975.38	52,925.58	3,383.13	1,512.27	615.91	8,296.68	1,278.99	9,808.95	1,418.75	62,734.53	3,539.56
Department of Defense and Energy	367.12	278.44	2,811.29	747.27	3,178.40	794.00	--	--	193.48	207.29	193.48	207.29	3,371.88	820.61
National Park Service	--	--	--	--	--	--	43,618.80	2,553.58	18,256.18	2,072.78	61,874.97	3,065.45	61,874.97	3,065.45
U.S. Fish and Wildlife Service	--	--	--	--	--	--	154.11	158.57	18.78	18.16	172.89	159.61	172.89	159.61
Other federal	--	--	3,383.53	844.19	3,383.53	844.19	--	--	373.96	231.66	373.96	231.66	3,757.49	874.60
Total	13,305.59	1,812.88	46,181.92	3,120.48	59,487.51	3,496.90	45,285.18	2,545.01	27,139.08	2,359.49	72,424.25	3,163.85	131,911.77	3,925.04
State and local government:														
Local	1,500.22	597.58	4,170.10	931.30	5,670.32	1,114.10	1,623.73	685.53	6,300.16	1,061.80	7,923.89	1,189.81	13,594.21	1,579.62
State	3,902.24	1,008.58	1,942.30	676.60	5,844.54	1,211.59	12,605.65	1,260.67	9,565.80	1,381.15	22,171.45	1,775.56	28,016.00	1,835.66
Other public	--	--	357.26	275.14	357.26	275.14	216.23	253.46	356.02	310.23	572.25	400.61	929.51	485.99
Total	5,402.46	1,160.45	6,469.67	1,180.88	11,872.13	1,651.78	14,445.62	1,385.57	16,221.97	1,587.36	30,667.59	1,918.66	42,539.72	2,066.14
Private:														
Corporate	181,174.21	4,967.73	28,419.96	2,563.31	209,594.17	5,441.74	--	--	--	--	--	--	209,594.17	5,441.74
Noncorporate private:														
Total, noncorporate private	140,799.63	5,036.93	192,709.75	5,260.80	333,509.38	6,654.51	--	--	--	--	--	--	333,509.38	6,654.51
All private	321,973.83	4,828.11	221,129.71	5,429.00	543,103.54	5,970.32	--	--	--	--	--	--	543,103.54	5,970.32
All owners	757,276.09	7,133.91	380,691.54	7,516.83	1,137,967.63	8,344.02	185,752.96	4,933.52	98,803.04	4,446.58	284,556.01	5,617.92	1,422,523.63	8,506.44

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C61.5: Soil Organic Carbon by Owner Group and Forest Land Status, All California (10 year averages): 2005-2014

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	416,520.27	5,163.05	105,188.64	4,196.58	521,708.91	5,164.89	127,218.28	4,070.95	54,821.26	3,424.42	182,039.54	4,281.92	703,748.45	5,553.73
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	416,520.27	5,163.05	105,188.64	4,196.58	521,708.91	5,164.89	127,218.28	4,070.95	54,821.26	3,424.42	182,039.54	4,281.92	703,748.45	5,553.73
Other federal government:														
Bureau of Land Management	12,759.07	1,773.76	38,819.04	2,904.84	51,578.11	3,310.44	1,808.85	699.62	7,545.63	1,224.74	9,354.48	1,405.29	60,932.59	3,460.82
Department of Defense and Energy	373.82	284.19	2,677.30	734.82	3,051.12	787.84	--	--	193.48	207.16	193.48	207.16	3,244.59	814.62
National Park Service	--	--	--	--	--	--	43,672.21	2,548.55	17,832.63	2,046.66	61,504.84	3,062.17	61,504.84	3,062.17
U.S. Fish and Wildlife Service	--	--	--	--	--	--	154.23	158.53	18.78	18.15	173.02	159.57	173.02	159.57
Other federal	--	--	3,436.79	844.95	3,436.79	844.95	--	--	373.96	231.52	373.96	231.52	3,810.74	875.30
Total	13,132.89	1,789.46	44,933.12	3,054.48	58,066.01	3,429.79	45,635.29	2,554.92	25,964.49	2,310.43	71,599.77	3,149.06	129,665.79	3,859.13
State and local government:														
Local	2,185.54	768.85	4,699.10	982.01	6,884.63	1,253.87	1,623.73	685.10	6,117.13	1,049.31	7,740.86	1,178.52	14,625.50	1,673.67
State	4,098.30	1,022.12	1,993.82	674.84	6,092.12	1,230.55	12,599.57	1,257.63	9,551.27	1,373.15	22,150.84	1,767.46	28,242.96	1,841.20
Other public	--	--	330.59	269.57	330.59	269.57	216.23	253.30	356.02	310.04	572.25	400.35	902.84	482.65
Total	6,283.83	1,268.15	7,023.51	1,216.87	13,307.34	1,760.16	14,439.53	1,382.65	16,024.42	1,572.37	30,463.95	1,904.57	43,771.29	2,142.90
Private:														
Corporate	182,406.40	4,959.03	31,454.45	2,679.41	213,860.85	5,488.83	--	--	--	--	--	--	213,860.85	5,488.83
Noncorporate private:														
Total, noncorporate private	137,049.80	4,954.73	187,081.28	5,229.83	324,131.08	6,591.46	--	--	--	--	--	--	324,131.08	6,591.46
All private	319,456.19	4,778.29	218,535.73	5,398.28	537,991.93	5,906.26	--	--	--	--	--	--	537,991.93	5,906.26
All owners	755,393.18	7,119.12	375,681.01	7,475.37	1,131,074.19	8,297.25	187,293.10	4,970.47	96,810.16	4,417.62	284,103.26	5,602.77	1,415,177.45	8,503.52

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C61.6: Soil Organic Carbon by Owner Group and Forest Land Status, All California (10 year averages): 2006-2015

Ownership group	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	SE
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	416,083.88	5,159.21	100,953.82	4,103.54	517,037.70	5,120.88	128,579.20	4,084.93	54,132.84	3,379.15	182,712.05	4,269.17	699,749.75	5,565.17
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	416,083.88	5,159.21	100,953.82	4,103.54	517,037.70	5,120.88	128,579.20	4,084.93	54,132.84	3,379.15	182,712.05	4,269.17	699,749.75	5,565.17
Other federal government:														
Bureau of Land Management	12,456.16	1,730.32	37,271.21	2,834.34	49,727.37	3,223.94	2,208.42	797.14	7,342.28	1,211.14	9,550.70	1,444.89	59,278.07	3,392.37
Department of Defense and Energy	400.29	307.52	2,677.50	735.00	3,077.80	796.72	--	--	193.48	207.21	193.48	207.21	3,271.28	823.22
National Park Service	--	--	--	--	--	--	43,388.04	2,533.81	17,996.27	2,069.29	61,384.32	3,064.45	61,384.32	3,064.45
U.S. Fish and Wildlife Service	--	--	--	--	--	--	154.23	158.57	18.78	18.15	173.02	159.60	173.02	159.60
Other federal	--	--	3,454.17	850.81	3,454.17	850.81	--	--	374.11	231.58	374.11	231.58	3,828.28	880.97
Total	12,856.45	1,749.05	43,402.89	2,989.36	56,259.34	3,353.55	45,750.69	2,568.75	25,924.94	2,322.22	71,675.63	3,163.52	127,934.97	3,807.71
State and local government:														
Local	2,019.34	752.30	4,713.00	984.49	6,732.34	1,245.75	1,615.07	681.15	5,924.66	1,032.50	7,539.73	1,161.71	14,272.06	1,655.59
State	4,560.88	1,078.67	1,938.98	670.96	6,499.86	1,275.87	12,601.43	1,258.14	9,350.87	1,361.54	21,952.30	1,758.78	28,452.16	1,868.05
Other public	--	--	341.03	274.63	341.03	274.63	216.23	253.36	360.54	314.05	576.77	403.50	917.79	488.09
Total	6,580.22	1,301.53	6,993.00	1,216.55	13,573.22	1,783.42	14,432.73	1,381.39	15,636.07	1,554.83	30,068.80	1,890.13	43,642.02	2,151.67
Private:														
Corporate	185,524.02	4,881.52	35,112.27	2,829.50	220,636.29	5,490.36	--	--	--	--	--	--	220,636.29	5,490.36
Noncorporate private:														
Total, noncorporate private	133,537.16	4,905.33	181,904.32	5,170.91	315,441.48	6,523.89	--	--	--	--	--	--	315,441.48	6,523.89
All private	319,061.19	4,727.17	217,016.59	5,386.36	536,077.78	5,862.00	--	--	--	--	--	--	536,077.78	5,862.00
All owners	754,581.74	7,085.47	368,366.30	7,399.38	1,122,948.04	8,223.43	188,762.62	4,984.20	95,693.85	4,383.22	284,456.47	5,596.85	1,407,404.51	8,469.34

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C61.7: Soil Organic Carbon by Owner Group and Forest Land Status, All California (10 year averages): 2007-2016

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	414,653.96	5,140.27	98,242.18	4,040.61	512,896.14	5,076.66	130,304.95	4,070.16	55,097.86	3,393.53	185,402.81	4,273.23	698,298.95	5,593.10
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	414,653.96	5,140.27	98,242.18	4,040.61	512,896.14	5,076.66	130,304.95	4,070.16	55,097.86	3,393.53	185,402.81	4,273.23	698,298.95	5,593.10
Other federal government:														
Bureau of Land Management	11,749.61	1,683.46	36,788.57	2,812.65	48,538.18	3,191.34	2,750.19	899.87	7,385.71	1,222.55	10,135.91	1,512.27	58,674.09	3,389.90
Department of Defense and Energy	720.86	413.37	2,843.22	752.78	3,564.07	858.79	--	--	193.48	207.30	193.48	207.30	3,757.55	883.46
National Park Service	--	--	--	--	--	--	43,426.31	2,538.50	18,223.08	2,081.19	61,649.39	3,074.62	61,649.39	3,074.62
U.S. Fish and Wildlife Service	--	--	--	--	--	--	154.19	158.61	18.78	18.16	172.97	159.65	172.97	159.65
Other federal	--	--	2,996.86	769.32	2,996.86	769.32	--	--	378.14	232.36	378.14	232.36	3,375.01	803.08
Total	12,470.46	1,724.95	42,628.65	2,956.75	55,099.12	3,323.32	46,330.69	2,560.54	26,199.20	2,339.65	72,529.89	3,165.95	127,629.01	3,792.94
State and local government:														
Local	2,622.56	844.83	5,328.17	1,048.47	7,950.73	1,372.08	1,619.20	682.76	5,889.20	1,033.53	7,508.40	1,163.46	15,459.13	1,744.31
State	4,462.09	1,045.94	2,025.68	687.95	6,487.78	1,257.54	12,628.39	1,263.88	9,442.22	1,366.03	22,070.61	1,763.65	28,558.39	1,845.90
Other public	--	--	340.85	274.74	340.85	274.74	216.23	253.47	360.54	314.18	576.77	403.68	917.61	488.30
Total	7,084.66	1,326.91	7,694.70	1,265.28	14,779.35	1,848.30	14,463.82	1,386.88	15,691.96	1,557.19	30,155.77	1,892.10	44,935.13	2,176.64
Private:														
Corporate	189,459.06	4,869.36	37,238.09	2,894.82	226,697.16	5,490.19	--	--	--	--	--	--	226,697.16	5,490.19
Noncorporate private:														
Total, noncorporate private	127,666.04	4,817.37	178,628.93	5,096.31	306,294.97	6,442.16	--	--	--	--	--	--	306,294.97	6,442.16
All private	317,125.10	4,694.02	215,867.02	5,317.54	532,992.13	5,816.07	--	--	--	--	--	--	532,992.13	5,816.07
All owners	751,334.18	7,042.31	364,432.55	7,311.32	1,115,766.74	8,161.36	191,099.45	4,969.43	96,989.02	4,404.31	288,088.47	5,602.39	1,403,855.21	8,457.54

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C61.8: Soil Organic Carbon by Owner Group and Forest Land Status, All California (10 year averages): 2008-2017

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	412,232.42	5,123.46	98,324.84	4,059.77	510,557.26	5,083.38	130,607.16	4,098.11	55,402.15	3,397.84	186,009.32	4,321.74	696,566.58	5,584.77
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	412,232.42	5,123.46	98,324.84	4,059.77	510,557.26	5,083.38	130,607.16	4,098.11	55,402.15	3,397.84	186,009.32	4,321.74	696,566.58	5,584.77
Other federal government:														
Bureau of Land Management	12,030.49	1,704.34	36,635.71	2,812.00	48,666.19	3,199.24	2,732.79	897.10	7,317.10	1,214.63	10,049.89	1,504.21	58,716.09	3,395.83
Department of Defense and Energy	720.55	413.22	2,851.35	753.89	3,571.90	859.69	--	--	178.60	199.11	178.60	199.11	3,750.50	882.45
National Park Service	--	--	--	--	--	--	43,505.62	2,553.58	18,239.02	2,074.35	61,744.63	3,080.71	61,744.63	3,080.71
U.S. Fish and Wildlife Service	--	--	--	--	--	--	154.19	158.57	18.78	18.15	172.97	159.60	172.97	159.60
Other federal	--	--	1,870.85	604.32	1,870.85	604.32	--	--	168.56	99.14	168.56	99.14	2,039.42	611.66
Total	12,751.03	1,745.31	41,357.91	2,916.21	54,108.95	3,294.85	46,392.60	2,578.07	25,922.06	2,325.61	72,314.66	3,173.37	126,423.61	3,773.72
State and local government:														
Local	2,570.77	838.53	5,304.50	1,048.35	7,875.26	1,361.51	1,625.78	685.07	5,605.46	1,007.30	7,231.24	1,143.89	15,106.50	1,724.96
State	4,470.88	1,052.15	2,009.48	686.29	6,480.36	1,261.73	12,757.50	1,260.02	9,080.98	1,314.23	21,838.47	1,767.32	28,318.83	1,858.31
Other public	--	--	340.66	274.65	340.66	274.65	219.32	257.02	368.72	321.23	588.04	411.39	928.70	494.65
Total	7,041.64	1,324.42	7,654.63	1,264.13	14,696.28	1,841.49	14,602.60	1,384.71	15,055.15	1,504.99	29,657.75	1,891.21	44,354.03	2,163.68
Private:														
Corporate	194,994.55	4,834.66	39,388.03	2,966.74	234,382.58	5,475.73	--	--	--	--	--	--	234,382.58	5,475.73
Noncorporate private:														
Total, noncorporate private	121,410.33	4,724.51	176,462.90	5,072.39	297,873.23	6,372.39	--	--	--	--	--	--	297,873.23	6,372.39
All private	316,404.88	4,689.92	215,850.93	5,316.20	532,255.81	5,809.50	--	--	--	--	--	--	532,255.81	5,809.50
All owners	748,429.98	7,032.45	363,188.32	7,305.70	1,111,618.30	8,155.69	191,602.36	5,000.21	96,379.37	4,383.19	287,981.72	5,643.42	1,399,600.02	8,436.34

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C61.9: Soil Organic Carbon by Owner Group and Forest Land Status, All California (10 year averages): 2009-2018

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	411,197.40	5,127.37	98,303.81	4,065.02	509,501.21	5,106.47	131,165.04	4,173.23	55,273.27	3,415.29	186,438.31	4,398.75	695,939.52	5,593.47
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	411,197.40	5,127.37	98,303.81	4,065.02	509,501.21	5,106.47	131,165.04	4,173.23	55,273.27	3,415.29	186,438.31	4,398.75	695,939.52	5,593.47
Other federal government:														
Bureau of Land Management	10,751.88	1,605.58	36,104.30	2,795.84	46,856.18	3,123.47	2,424.49	836.91	7,090.54	1,192.40	9,515.03	1,451.32	56,371.22	3,300.88
Department of Defense and Energy	691.36	401.55	2,904.83	754.76	3,596.19	854.91	--	--	178.60	198.97	178.60	198.97	3,774.79	877.76
National Park Service	--	--	--	--	--	--	43,569.27	2,542.78	18,452.34	2,096.01	62,021.61	3,087.91	62,021.61	3,087.91
U.S. Fish and Wildlife Service	--	--	--	--	--	--	154.19	158.47	18.78	18.14	172.97	159.50	172.97	159.50
Other federal	139.83	158.21	1,805.34	598.48	1,945.17	619.04	--	--	166.74	98.09	166.74	98.09	2,111.91	626.08
Total	11,583.06	1,654.52	40,814.48	2,901.71	52,397.54	3,226.40	46,147.95	2,573.01	25,907.01	2,333.89	72,054.95	3,177.88	124,452.49	3,702.84
State and local government:														
Local	2,573.28	838.12	5,319.63	1,047.10	7,892.92	1,363.80	1,797.99	697.33	5,402.43	1,010.97	7,200.42	1,147.39	15,093.33	1,736.68
State	4,710.83	1,072.43	2,285.61	732.10	6,996.43	1,303.47	12,651.00	1,250.66	9,011.56	1,310.44	21,662.56	1,756.30	28,658.99	1,845.35
Other public	--	--	38.33	36.08	38.33	36.08	207.46	249.27	368.72	321.01	576.18	406.43	614.51	408.03
Total	7,284.11	1,335.28	7,643.57	1,261.79	14,927.68	1,852.51	14,656.45	1,382.92	14,782.71	1,527.01	29,439.16	1,904.23	44,366.84	2,163.44
Private:														
Corporate	196,672.79	4,782.71	40,249.61	2,981.55	236,922.41	5,430.63	--	--	--	--	--	--	236,922.41	5,430.63
Noncorporate private:														
Total, noncorporate private	120,084.98	4,692.26	174,820.15	5,059.83	294,905.13	6,325.77	--	--	--	--	--	--	294,905.13	6,325.77
All private	316,757.77	4,653.09	215,069.77	5,306.82	531,827.54	5,777.73	--	--	--	--	--	--	531,827.54	5,777.73
All owners	746,822.35	7,045.84	361,831.62	7,294.84	1,108,653.96	8,168.99	191,969.44	5,059.43	95,962.98	4,408.69	287,932.42	5,710.17	1,396,586.38	8,438.75

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C61.10: Soil Organic Carbon by Owner Group and Forest Land Status, All California (10 year averages): 2010-2019

**information duplicated in Table C53*

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	411,967.95	5,115.69	95,521.77	3,977.93	507,489.71	5,110.11	132,597.24	4,208.87	55,381.97	3,399.41	187,979.21	4,417.17	695,468.92	5,579.07
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	411,967.95	5,115.69	95,521.77	3,977.93	507,489.71	5,110.11	132,597.24	4,208.87	55,381.97	3,399.41	187,979.21	4,417.17	695,468.92	5,579.07
Other federal government:														
Bureau of Land Management	9,996.11	1,535.36	34,895.35	2,741.24	44,891.45	3,041.91	2,233.78	805.65	7,113.76	1,200.07	9,347.54	1,440.91	54,238.99	3,225.53
Department of Defense and Energy	691.36	401.12	3,085.47	777.99	3,776.83	875.29	--	--	178.60	198.76	178.60	198.76	3,955.42	897.58
National Park Service	--	--	--	--	--	--	43,590.05	2,539.71	18,836.40	2,116.65	62,426.45	3,100.03	62,426.45	3,100.03
U.S. Fish and Wildlife Service	--	--	--	--	--	--	154.14	158.28	18.78	18.12	172.93	159.32	172.93	159.32
Other federal	139.83	158.04	1,568.05	543.24	1,707.87	565.77	--	--	161.90	96.22	161.90	96.22	1,869.77	573.59
Total	10,827.29	1,586.36	39,548.86	2,848.52	50,376.16	3,147.11	45,977.97	2,560.54	26,309.44	2,356.45	72,287.41	3,185.91	122,663.56	3,671.05
State and local government:														
Local	2,581.36	840.15	5,164.41	1,021.04	7,745.78	1,343.46	1,801.46	698.43	5,369.61	1,009.32	7,171.07	1,146.79	14,916.85	1,717.91
State	4,657.41	1,064.75	2,537.83	781.64	7,195.24	1,325.74	12,726.86	1,253.75	9,449.26	1,345.59	22,176.12	1,784.93	29,371.36	1,890.70
Other public	--	--	37.96	35.87	37.96	35.87	207.45	248.99	368.72	320.67	576.17	405.99	614.13	407.57
Total	7,238.78	1,330.45	7,740.20	1,267.81	14,978.97	1,849.59	14,735.77	1,385.02	15,187.59	1,556.54	29,923.36	1,929.80	44,902.34	2,172.94
Private:														
Corporate	196,756.44	4,737.64	40,326.70	2,982.76	237,083.14	5,364.07	--	--	--	--	--	--	237,083.14	5,364.07
Noncorporate private:														
Total, noncorporate private	120,887.21	4,689.14	173,503.53	5,011.77	294,390.74	6,279.10	--	--	--	--	--	--	294,390.74	6,279.10
All private	317,643.65	4,659.52	213,830.23	5,268.39	531,473.88	5,744.04	--	--	--	--	--	--	531,473.88	5,744.04
All owners	747,677.67	7,031.93	356,641.06	7,217.27	1,104,318.73	8,143.29	193,310.98	5,082.82	96,879.00	4,417.22	290,189.98	5,735.57	1,394,508.71	8,411.34

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C62: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, 2010-2019: All California

**information duplicated in Table C70.10*

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	40,835.26	1,246.74	3,732.58	348.64	44,567.85	1,269.66	13,522.62	901.60	3,014.28	337.58	16,536.90	939.99	61,104.75	1,550.94
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	40,835.26	1,246.74	3,732.58	348.64	44,567.85	1,269.66	13,522.62	901.60	3,014.28	337.58	16,536.90	939.99	61,104.75	1,550.94
Other federal government:														
Bureau of Land Management	759.58	170.69	984.23	143.37	1,743.82	219.74	205.93	96.70	498.19	151.57	704.11	179.77	2,447.93	279.87
Department of Defense and Energy	41.96	33.90	73.08	37.78	115.03	50.76	--	--	3.38	3.76	3.38	3.76	118.41	50.90
National Park Service	--	--	--	--	--	--	6,413.31	690.37	1,299.18	306.29	7,712.50	735.78	7,712.50	735.78
U.S. Fish and Wildlife Service	--	--	--	--	--	--	1.55	1.59	--	--	1.55	1.59	1.55	1.59
Other federal	0.86	0.97	25.92	15.11	26.78	15.14	--	--	1.40	1.02	1.40	1.02	28.18	15.18
Total	802.40	173.68	1,083.23	148.54	1,885.63	225.20	6,620.79	691.82	1,802.15	339.71	8,422.94	749.99	10,308.57	757.21
State and local government:														
Local	366.12	225.73	252.37	86.65	618.50	241.79	115.82	50.12	227.98	106.83	343.80	115.16	962.30	267.20
State	470.42	139.63	48.11	20.52	518.53	141.01	2,092.20	370.25	447.85	116.70	2,540.05	386.13	3,058.57	376.86
Other public	--	--	--	--	--	--	14.53	17.44	3.53	3.07	18.06	17.71	18.06	17.71
Total	836.54	259.82	300.48	88.92	1,137.02	274.47	2,222.55	369.93	679.36	155.52	2,901.91	396.31	4,038.93	423.81
Private:														
Corporate	23,015.47	1,061.98	1,356.60	165.89	24,372.07	1,069.50	--	--	--	--	--	--	24,372.07	1,069.50
Noncorporate private:														
Total, noncorporate private	11,558.62	772.33	5,299.82	349.31	16,858.44	840.33	--	--	--	--	--	--	16,858.44	840.33
All private	34,574.09	1,195.79	6,656.42	378.86	41,230.51	1,235.59	--	--	--	--	--	--	41,230.51	1,235.59
All owners	77,048.29	1,749.69	11,772.72	541.96	88,821.01	1,798.35	22,365.96	1,192.01	5,495.79	503.54	27,861.75	1,262.99	116,682.76	2,145.71

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C63: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	0.00	0.00	64.45	32.33	64.45	32.33	290.60	206.07	313.66	111.65	604.27	259.20	668.72	261.21
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	0.00	0.00	64.45	32.33	64.45	32.33	290.60	206.07	313.66	111.65	604.27	259.20	668.72	261.21
Other federal government:														
Bureau of Land Management	--	--	34.79	22.06	34.79	22.06	--	--	0.27	0.30	0.27	0.30	35.06	22.06
Department of Defense and Energy	--	--	54.34	36.43	54.34	36.43	--	--	--	--	--	--	54.34	36.43
National Park Service	--	--	--	--	--	--	--	--	173.82	148.48	173.82	148.48	173.82	148.48
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	1.00	1.17	1.00	1.17	--	--	--	--	--	--	1.00	1.17
Total	--	--	90.13	42.59	90.13	42.59	--	--	174.09	148.48	174.09	148.48	264.22	154.47
State and local government:														
Local	--	--	139.75	80.63	139.75	80.63	115.82	50.12	174.38	105.55	290.20	114.03	429.96	139.38
State	86.20	67.51	3.76	3.32	89.96	67.61	256.64	138.72	169.09	79.14	425.72	159.14	515.68	170.98
Other public	--	--	--	--	--	--	14.53	17.44	3.53	3.07	18.06	17.71	18.06	17.71
Total	86.20	67.51	143.51	80.70	229.71	105.11	386.99	145.72	347.00	130.41	733.99	189.34	963.70	211.22
Private:														
Corporate	319.73	164.57	244.61	68.10	564.34	178.10	--	--	--	--	--	--	564.34	178.10
Noncorporate private:														
Total, noncorporate private	978.59	281.35	1,044.37	160.26	2,022.96	323.53	--	--	--	--	--	--	2,022.96	323.53
All private	1,298.32	325.21	1,288.98	172.98	2,587.30	368.09	--	--	--	--	--	--	2,587.30	368.09
All owners	1,384.52	332.13	1,587.07	198.20	2,971.59	386.42	677.59	252.39	834.76	226.98	1,512.35	353.67	4,483.94	521.17

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C64: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, 2010-2019: Central Valley

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal government:														
Bureau of Land Management	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
State and local government:														
Local	--	--	7.94	7.54	7.94	7.54	--	--	--	--	--	--	7.94	7.54
State	--	--	--	--	--	--	--	--	10.50	10.66	10.50	10.66	10.50	10.66
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	7.94	7.54	7.94	7.54	--	--	10.50	10.66	10.50	10.66	18.44	13.06
Private:														
Corporate	--	--	0.02	0.02	0.02	0.02	--	--	--	--	--	--	0.02	0.02
Noncorporate private:														
Total, noncorporate private	--	--	145.63	59.52	145.63	59.52	--	--	--	--	--	--	145.63	59.52
All private	--	--	145.65	59.52	145.65	59.52	--	--	--	--	--	--	145.65	59.52
All owners	--	--	153.59	59.99	153.59	59.99	--	--	10.50	10.66	10.50	10.66	164.09	60.93

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C65: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, 2010-2019: Eastside

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	1,702.22	202.62	842.37	130.82	2,544.59	233.44	261.66	117.62	217.87	67.92	479.53	135.77	3,024.12	267.82
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	1,702.22	202.62	842.37	130.82	2,544.59	233.44	261.66	117.62	217.87	67.92	479.53	135.77	3,024.12	267.82
Other federal government:														
Bureau of Land Management	110.49	91.25	338.84	65.33	449.32	111.61	--	--	79.52	39.62	79.52	39.62	528.85	118.05
Department of Defense and Energy	--	--	17.07	9.83	17.07	9.83	--	--	--	--	--	--	17.07	9.83
National Park Service	--	--	--	--	--	--	--	--	70.23	35.57	70.23	35.57	70.23	35.57
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	110.49	91.25	355.91	65.87	466.40	111.91	--	--	149.75	53.01	149.75	53.01	616.15	122.91
State and local government:														
Local	--	--	--	--	--	--	--	--	--	--	--	--	--	--
State	--	--	--	--	--	--	20.08	22.04	0.25	0.26	20.33	22.04	20.33	22.04
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	20.08	22.04	0.25	0.26	20.33	22.04	20.33	22.04
Private:														
Corporate	663.46	135.81	56.90	29.12	720.36	138.90	--	--	--	--	--	--	720.36	138.90
Noncorporate private:														
Total, noncorporate private	266.44	97.56	26.69	9.25	293.13	98.05	--	--	--	--	--	--	293.13	98.05
All private	929.91	167.05	83.58	30.55	1,013.49	169.82	--	--	--	--	--	--	1,013.49	169.82
All owners	2,742.61	279.35	1,281.87	149.68	4,024.48	310.63	281.74	119.66	367.87	86.16	649.60	147.41	4,674.08	341.76

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C66: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	13,392.17	764.63	981.87	248.20	14,374.04	791.87	6,675.24	543.21	554.16	160.40	7,229.40	556.10	21,603.44	939.63
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	13,392.17	764.63	981.87	248.20	14,374.04	791.87	6,675.24	543.21	554.16	160.40	7,229.40	556.10	21,603.44	939.63
Other federal government:														
Bureau of Land Management	407.81	133.09	162.23	71.13	570.04	149.38	18.37	17.24	37.76	23.67	56.13	29.29	626.17	151.63
Department of Defense and Energy	--	--	--	--	--	--	--	--	3.38	3.76	3.38	3.76	3.38	3.76
National Park Service	--	--	--	--	--	--	576.21	223.94	135.34	67.93	711.55	234.38	711.55	234.38
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	0.86	0.97	0.03	0.02	0.88	0.97	--	--	0.59	0.70	0.59	0.70	1.48	1.20
Total	408.66	133.09	162.26	71.13	570.92	149.39	594.57	223.42	177.07	71.93	771.65	235.07	1,342.57	271.60
State and local government:														
Local	0.57	0.63	4.11	2.54	4.69	2.62	--	--	6.64	7.21	6.64	7.21	11.33	7.67
State	21.16	16.61	14.82	9.61	35.98	19.19	27.75	27.54	62.11	46.58	89.86	54.22	125.84	57.52
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	21.73	16.63	18.93	9.94	40.67	19.37	27.75	27.54	68.75	47.13	96.50	54.70	137.17	57.99
Private:														
Corporate	4,788.76	550.80	396.87	98.73	5,185.64	558.13	--	--	--	--	--	--	5,185.64	558.13
Noncorporate private:														
Total, noncorporate private	3,164.91	433.10	1,599.76	220.47	4,764.67	483.90	--	--	--	--	--	--	4,764.67	483.90
All private	7,953.67	686.36	1,996.63	240.33	9,950.30	723.61	--	--	--	--	--	--	9,950.30	723.61
All owners	21,776.24	1,034.87	3,159.69	352.78	24,935.93	1,080.70	7,297.56	585.77	799.99	182.00	8,097.55	604.03	33,033.48	1,213.37

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C67: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, 2010-2019: North Coast

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	70.90	41.56	1.31	1.52	72.21	41.59	65.77	64.01	--	--	65.77	64.01	137.99	76.04
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	70.90	41.56	1.31	1.52	72.21	41.59	65.77	64.01	--	--	65.77	64.01	137.99	76.04
Other federal government:														
Bureau of Land Management	89.39	41.41	--	--	89.39	41.41	182.19	95.39	--	--	182.19	95.39	271.58	102.73
Department of Defense and Energy	35.45	33.26	--	--	35.45	33.26	--	--	--	--	--	--	35.45	33.26
National Park Service	--	--	--	--	--	--	657.30	374.69	3.23	2.74	660.53	374.69	660.53	374.69
U.S. Fish and Wildlife Service	--	--	--	--	--	--	1.55	1.59	--	--	1.55	1.59	1.55	1.59
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	124.84	52.97	--	--	124.84	52.97	841.04	385.46	3.23	2.74	844.27	385.46	969.11	386.72
State and local government:														
Local	311.83	223.74	1.16	0.97	312.99	223.75	--	--	35.51	15.01	35.51	15.01	348.50	224.25
State	280.32	114.41	0.24	0.22	280.56	114.41	1,382.17	344.63	50.33	40.53	1,432.51	347.00	1,713.07	341.91
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	592.15	245.48	1.41	1.00	593.56	245.48	1,382.17	344.63	85.84	43.21	1,468.01	347.31	2,061.57	379.62
Private:														
Corporate	9,262.85	881.00	46.60	22.33	9,309.45	881.19	--	--	--	--	--	--	9,309.45	881.19
Noncorporate private:														
Total, noncorporate private	4,065.01	483.51	212.31	56.60	4,277.32	485.63	--	--	--	--	--	--	4,277.32	485.63
All private	13,327.86	965.64	258.91	60.85	13,586.76	966.00	--	--	--	--	--	--	13,586.76	966.00
All owners	14,115.76	998.63	261.62	60.87	14,377.38	998.98	2,288.98	521.01	89.07	43.30	2,378.05	522.78	16,755.43	1,108.80

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C68: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, 2010-2019: Sierra Cascades

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	25,110.79	1,011.86	1,258.48	190.44	26,369.27	1,018.23	5,802.82	695.04	1,351.96	236.47	7,154.78	719.61	33,524.05	1,238.97
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	25,110.79	1,011.86	1,258.48	190.44	26,369.27	1,018.23	5,802.82	695.04	1,351.96	236.47	7,154.78	719.61	33,524.05	1,238.97
Other federal government:														
Bureau of Land Management	151.90	46.47	387.10	101.04	539.00	110.27	5.37	4.30	313.65	133.79	319.02	133.85	858.02	172.81
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	5,179.81	580.52	821.14	252.98	6,000.94	615.47	6,000.94	615.47
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	10.16	8.88	10.16	8.88	--	--	0.78	0.74	0.78	0.74	10.94	8.91
Total	151.90	46.47	397.26	101.40	549.16	110.60	5,185.18	580.33	1,135.57	284.58	6,320.75	627.87	6,869.90	629.20
State and local government:														
Local	53.72	29.88	73.01	33.74	126.73	45.06	--	--	9.56	8.48	9.56	8.48	136.29	45.85
State	82.74	50.46	29.29	17.83	112.03	53.52	288.84	98.14	96.44	51.63	385.27	110.89	497.30	119.62
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	136.45	58.65	102.30	38.12	238.76	69.79	288.84	98.14	105.99	52.33	394.83	111.22	633.59	127.47
Private:														
Corporate	7,970.98	505.33	573.75	111.26	8,544.73	515.96	--	--	--	--	--	--	8,544.73	515.96
Noncorporate private:														
Total, noncorporate private	2,931.38	385.11	1,884.86	195.17	4,816.24	427.52	--	--	--	--	--	--	4,816.24	427.52
All private	10,902.36	609.07	2,458.61	222.47	13,360.97	642.49	--	--	--	--	--	--	13,360.97	642.49
All owners	36,301.51	1,184.53	4,216.65	311.53	40,518.15	1,211.33	11,276.84	910.07	2,593.52	373.69	13,870.36	960.69	54,388.52	1,531.95

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C69: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	559.17	140.68	584.11	96.61	1,143.28	165.91	426.52	123.81	576.62	151.86	1,003.14	194.42	2,146.43	253.75
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	559.17	140.68	584.11	96.61	1,143.28	165.91	426.52	123.81	576.62	151.86	1,003.14	194.42	2,146.43	253.75
Other federal government:														
Bureau of Land Management	--	--	61.27	36.32	61.27	36.32	--	--	66.98	55.87	66.98	55.87	128.25	66.63
Department of Defense and Energy	6.51	6.55	1.66	1.92	8.17	6.82	--	--	--	--	--	--	8.17	6.82
National Park Service	--	--	--	--	--	--	--	--	95.43	45.42	95.43	45.42	95.43	45.42
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	14.74	12.17	14.74	12.17	--	--	0.02	0.02	0.02	0.02	14.77	12.17
Total	6.51	6.55	77.68	38.36	84.18	38.91	--	--	162.44	71.98	162.44	71.98	246.62	81.81
State and local government:														
Local	--	--	26.39	16.46	26.39	16.46	--	--	1.89	1.64	1.89	1.64	28.28	16.53
State	--	--	--	--	--	--	116.72	87.90	59.14	32.22	175.86	93.38	175.86	93.38
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	26.39	16.46	26.39	16.46	116.72	87.90	61.03	32.24	177.75	93.39	204.14	94.81
Private:														
Corporate	9.68	9.58	37.85	19.85	47.53	22.04	--	--	--	--	--	--	47.53	22.04
Noncorporate private:														
Total, noncorporate private	152.29	96.97	386.21	110.60	538.50	190.88	--	--	--	--	--	--	538.50	190.88
All private	161.97	97.44	424.06	112.37	586.03	192.15	--	--	--	--	--	--	586.03	192.15
All owners	727.65	171.26	1,112.23	153.77	1,839.89	257.24	543.24	151.84	800.09	171.12	1,343.33	227.38	3,183.22	341.95

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C70.1: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, All California (10 year averages): 2001-2010

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	40,188.13	1,048.58	4,821.78	364.97	45,009.91	1,071.49	11,896.21	696.15	2,655.83	266.14	14,552.04	722.41	59,561.95	1,253.24
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	40,188.13	1,048.58	4,821.78	364.97	45,009.91	1,071.49	11,896.21	696.15	2,655.83	266.14	14,552.04	722.41	59,561.95	1,253.24
Other federal government:														
Bureau of Land Management	733.88	125.30	1,025.91	126.73	1,759.79	177.00	50.35	25.13	349.47	94.06	399.82	97.35	2,159.61	197.89
Department of Defense and Energy	13.29	12.71	49.52	20.83	62.82	24.19	--	--	--	--	--	--	62.82	24.19
National Park Service	--	--	--	--	--	--	6,244.48	686.24	920.46	169.94	7,164.94	701.59	7,164.94	701.59
U.S. Fish and Wildlife Service	--	--	--	--	--	--	15.52	15.41	--	--	15.52	15.41	15.52	15.41
Other federal	--	--	54.36	24.71	54.36	24.71	161.64	127.59	25.17	22.84	186.82	129.62	241.18	131.95
Total	747.18	125.73	1,129.79	129.93	1,876.97	179.33	6,471.99	690.10	1,295.10	192.00	7,767.09	709.23	9,644.06	706.98
State and local government:														
Local	166.69	73.91	168.36	64.16	335.05	97.89	103.62	53.16	212.84	58.54	316.47	76.73	651.52	123.04
State	490.69	155.34	45.22	20.78	535.90	156.67	2,141.81	368.06	376.11	93.40	2,517.93	376.86	3,053.83	373.69
Other public	--	--	0.23	0.22	0.23	0.22	14.01	16.83	13.48	10.43	27.49	19.80	27.71	19.80
Total	657.37	170.08	213.80	67.42	871.18	182.87	2,259.44	366.97	602.44	106.94	2,861.88	377.82	3,733.06	374.64
Private:														
Corporate	24,440.74	1,098.53	587.45	82.57	25,028.19	1,100.88	--	--	--	--	--	--	25,028.19	1,100.88
Noncorporate private:														
Total, noncorporate private	13,219.62	752.47	5,696.57	292.07	18,916.19	792.04	--	--	--	--	--	--	18,916.19	792.04
All private	37,660.36	1,144.71	6,284.03	298.42	43,944.39	1,158.78	--	--	--	--	--	--	43,944.39	1,158.78
All owners	79,253.04	1,557.23	12,449.40	491.51	91,702.44	1,585.58	20,627.65	1,040.79	4,553.37	345.11	25,181.02	1,074.27	116,883.45	1,855.24

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C70.2: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, All California (10 year averages): 2002-2011

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	40,150.07	1,063.55	4,679.08	371.72	44,829.14	1,086.43	11,925.71	700.67	2,620.75	267.62	14,546.46	728.82	59,375.60	1,269.30
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	40,150.07	1,063.55	4,679.08	371.72	44,829.14	1,086.43	11,925.71	700.67	2,620.75	267.62	14,546.46	728.82	59,375.60	1,269.30
Other federal government:														
Bureau of Land Management	733.89	124.75	1,015.94	129.26	1,749.82	178.52	48.26	23.42	384.56	105.29	432.82	107.85	2,182.64	204.76
Department of Defense and Energy	20.97	14.84	47.17	20.41	68.14	24.98	--	--	--	--	--	--	68.14	24.98
National Park Service	--	--	--	--	--	--	6,397.77	694.37	922.95	172.85	7,320.72	707.66	7,320.72	707.66
U.S. Fish and Wildlife Service	--	--	--	--	--	--	15.52	15.42	--	--	15.52	15.42	15.52	15.42
Other federal	--	--	54.54	24.76	54.54	24.76	161.64	127.69	25.17	22.86	186.82	129.72	241.36	132.06
Total	754.86	125.38	1,117.64	132.34	1,872.50	180.90	6,623.20	698.24	1,332.67	200.18	7,955.87	717.01	9,828.37	715.75
State and local government:														
Local	292.71	216.80	191.44	82.29	484.15	231.91	111.06	54.78	205.73	58.91	316.79	77.53	800.95	243.81
State	495.50	156.14	43.49	19.36	538.99	157.28	2,166.02	365.83	391.27	94.43	2,557.30	374.93	3,096.28	370.91
Other public	--	--	0.23	0.22	0.23	0.22	14.78	17.32	10.54	9.86	25.32	19.93	25.56	19.93
Total	788.21	262.19	235.17	84.53	1,023.37	275.42	2,291.86	364.76	607.55	107.58	2,899.41	375.58	3,922.78	409.86
Private:														
Corporate	23,754.38	1,128.87	704.83	106.53	24,459.21	1,131.45	--	--	--	--	--	--	24,459.21	1,131.45
Noncorporate private:														
Total, noncorporate private	13,366.63	761.22	5,826.32	323.05	19,192.95	811.53	--	--	--	--	--	--	19,192.95	811.53
All private	37,121.01	1,186.89	6,531.14	333.50	43,652.15	1,207.13	--	--	--	--	--	--	43,652.15	1,207.13
All owners	78,814.14	1,611.01	12,563.03	521.53	91,377.17	1,644.74	20,840.77	1,047.70	4,560.97	351.06	25,401.74	1,082.16	116,778.91	1,908.25

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C70.3: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, All California (10 year averages): 2003-2012

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	39,938.19	1,065.28	4,474.57	365.33	44,412.76	1,086.27	12,156.69	725.86	2,704.43	270.64	14,861.12	753.84	59,273.88	1,287.29
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	39,938.19	1,065.28	4,474.57	365.33	44,412.76	1,086.27	12,156.69	725.86	2,704.43	270.64	14,861.12	753.84	59,273.88	1,287.29
Other federal government:														
Bureau of Land Management	765.65	126.23	1,040.71	132.59	1,806.36	182.21	81.64	38.61	374.35	105.50	456.00	112.34	2,262.36	209.24
Department of Defense and Energy	20.97	14.85	49.51	20.78	70.48	25.29	--	--	3.66	3.92	3.66	3.92	74.14	25.60
National Park Service	--	--	--	--	--	--	6,338.05	705.17	996.84	215.22	7,334.89	725.70	7,334.89	725.70
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	66.20	27.51	66.20	27.51	143.18	128.09	25.18	22.87	168.37	130.11	234.56	132.99
Total	786.63	126.89	1,156.42	136.12	1,943.04	184.92	6,562.88	708.86	1,400.03	237.77	7,962.91	734.53	9,905.96	732.39
State and local government:														
Local	285.10	216.45	190.98	82.31	476.08	231.58	112.02	55.36	215.96	61.02	327.98	79.43	804.06	244.11
State	509.87	159.11	47.38	19.75	557.26	160.26	2,148.38	366.90	380.01	94.18	2,528.39	376.08	3,085.64	371.28
Other public	--	--	0.23	0.22	0.23	0.22	15.20	17.82	11.31	10.23	26.51	20.54	26.74	20.55
Total	794.97	263.67	238.60	84.63	1,033.57	276.83	2,275.59	366.26	607.28	107.96	2,882.87	377.21	3,916.44	410.68
Private:														
Corporate	23,477.06	1,116.58	708.75	106.33	24,185.81	1,119.24	--	--	--	--	--	--	24,185.81	1,119.24
Noncorporate private:														
Total, noncorporate private	13,171.92	763.41	5,861.24	339.85	19,033.17	820.56	--	--	--	--	--	--	19,033.17	820.56
All private	36,648.99	1,182.58	6,569.99	349.38	43,218.98	1,207.52	--	--	--	--	--	--	43,218.98	1,207.52
All owners	78,168.78	1,608.59	12,439.58	528.38	90,608.36	1,645.07	20,995.16	1,074.52	4,711.74	376.05	25,706.90	1,113.76	116,315.26	1,930.00

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C70.4: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, All California (10 year averages): 2004-2013

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	39,716.38	1,070.04	4,435.50	364.50	44,151.88	1,092.13	12,326.83	774.94	2,719.19	275.92	15,046.01	801.09	59,197.89	1,322.48
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	39,716.38	1,070.04	4,435.50	364.50	44,151.88	1,092.13	12,326.83	774.94	2,719.19	275.92	15,046.01	801.09	59,197.89	1,322.48
Other federal government:														
Bureau of Land Management	745.55	123.38	998.85	131.30	1,744.40	179.27	84.39	38.73	390.93	107.77	475.32	114.51	2,219.72	208.08
Department of Defense and Energy	20.97	14.85	41.94	15.83	62.91	21.41	--	--	3.66	3.92	3.66	3.92	66.57	21.77
National Park Service	--	--	--	--	--	--	5,954.63	582.59	987.29	215.89	6,941.92	608.45	6,941.92	608.45
U.S. Fish and Wildlife Service	--	--	--	--	--	--	1.55	1.59	--	--	1.55	1.59	1.55	1.59
Other federal	--	--	62.08	25.86	62.08	25.86	--	--	4.76	3.51	4.76	3.51	66.84	26.08
Total	766.52	124.06	1,102.87	134.05	1,869.39	181.43	6,040.57	580.71	1,386.63	238.42	7,427.20	613.28	9,296.59	613.54
State and local government:														
Local	298.55	224.61	189.14	82.17	487.69	239.18	98.88	47.01	198.14	59.55	297.02	71.93	784.71	249.48
State	510.01	153.39	47.91	19.82	557.93	154.60	2,126.03	364.26	355.67	91.86	2,481.70	372.84	3,039.63	365.21
Other public	--	--	0.25	0.23	0.25	0.23	15.20	17.81	12.20	10.63	27.39	20.74	27.64	20.74
Total	808.57	266.38	237.30	84.51	1,045.87	279.37	2,240.11	364.66	566.01	106.00	2,806.11	374.94	3,851.98	409.64
Private:														
Corporate	23,136.04	1,098.08	768.33	112.91	23,904.37	1,101.34	--	--	--	--	--	--	23,904.37	1,101.34
Noncorporate private:														
Total, noncorporate private	12,823.60	747.08	5,752.82	344.05	18,576.42	807.40	--	--	--	--	--	--	18,576.42	807.40
All private	35,959.64	1,166.01	6,521.14	355.45	42,480.79	1,194.92	--	--	--	--	--	--	42,480.79	1,194.92
All owners	77,251.11	1,600.33	12,296.81	531.16	89,547.92	1,639.97	20,607.50	1,031.65	4,671.83	379.73	25,279.33	1,073.01	114,827.25	1,906.09

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C70.5: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, All California (10 year averages): 2005-2014

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	39,361.30	1,091.72	4,188.22	352.96	43,549.51	1,112.49	12,844.25	792.23	2,793.21	295.80	15,637.45	820.66	59,186.96	1,353.49
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	39,361.30	1,091.72	4,188.22	352.96	43,549.51	1,112.49	12,844.25	792.23	2,793.21	295.80	15,637.45	820.66	59,186.96	1,353.49
Other federal government:														
Bureau of Land Management	746.76	123.01	941.41	126.63	1,688.17	175.64	103.27	44.06	434.10	126.91	537.37	134.29	2,225.54	215.85
Department of Defense and Energy	21.30	15.11	34.82	15.10	56.13	21.37	--	--	3.66	3.92	3.66	3.92	59.79	21.72
National Park Service	--	--	--	--	--	--	5,989.53	584.70	952.83	209.87	6,942.36	608.27	6,942.36	608.27
U.S. Fish and Wildlife Service	--	--	--	--	--	--	1.55	1.59	--	--	1.55	1.59	1.55	1.59
Other federal	--	--	62.51	25.88	62.51	25.88	--	--	4.76	3.50	4.76	3.50	67.27	26.10
Total	768.06	123.72	1,038.75	129.52	1,806.81	177.97	6,094.34	582.99	1,395.35	242.23	7,489.70	616.85	9,296.51	615.29
State and local government:														
Local	328.95	225.83	203.30	82.62	532.26	240.48	98.88	46.98	177.19	56.34	276.07	70.03	808.33	250.20
State	485.40	149.87	47.47	19.51	532.87	151.08	2,192.53	371.46	366.18	92.44	2,558.71	379.95	3,091.58	372.86
Other public	--	--	0.24	0.22	0.24	0.22	15.20	17.80	12.20	10.62	27.39	20.73	27.64	20.73
Total	814.35	266.73	251.01	84.87	1,065.37	279.82	2,306.61	371.77	555.57	104.95	2,862.18	381.64	3,927.55	417.25
Private:														
Corporate	22,736.61	1,080.96	844.36	114.92	23,580.98	1,084.49	--	--	--	--	--	--	23,580.98	1,084.49
Noncorporate private:														
Total, noncorporate private	12,767.04	770.90	5,521.33	335.76	18,288.36	825.67	--	--	--	--	--	--	18,288.36	825.67
All private	35,503.65	1,173.35	6,365.69	347.65	41,869.34	1,199.76	--	--	--	--	--	--	41,869.34	1,199.76
All owners	76,447.36	1,621.00	11,843.67	517.09	88,291.03	1,657.54	21,245.20	1,048.47	4,744.13	396.44	25,989.33	1,092.04	114,280.36	1,933.37

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C70.6: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, All California (10 year averages): 2006-2015

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	39,021.86	1,093.04	3,982.45	348.50	43,004.31	1,113.92	12,936.72	810.78	2,667.75	287.46	15,604.47	837.83	58,608.79	1,365.28
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	39,021.86	1,093.04	3,982.45	348.50	43,004.31	1,113.92	12,936.72	810.78	2,667.75	287.46	15,604.47	837.83	58,608.79	1,365.28
Other federal government:														
Bureau of Land Management	842.96	156.59	936.57	129.87	1,779.53	202.21	177.26	83.61	430.49	127.00	607.75	152.01	2,387.28	247.53
Department of Defense and Energy	22.50	16.10	35.38	15.11	57.89	22.08	--	--	3.66	3.92	3.66	3.92	61.55	22.42
National Park Service	--	--	--	--	--	--	6,023.47	606.05	1,135.93	256.18	7,159.40	645.06	7,159.40	645.06
U.S. Fish and Wildlife Service	--	--	--	--	--	--	1.55	1.59	--	--	1.55	1.59	1.55	1.59
Other federal	--	--	62.45	25.87	62.45	25.87	--	--	4.76	3.50	4.76	3.50	67.20	26.10
Total	865.47	157.21	1,034.40	132.69	1,899.86	204.31	6,202.28	608.51	1,574.84	283.42	7,777.12	656.97	9,676.98	659.73
State and local government:														
Local	327.56	225.82	219.01	83.13	546.57	240.65	83.82	37.25	172.28	56.37	256.10	65.12	802.67	249.01
State	446.79	135.04	42.29	18.87	489.08	136.28	2,196.19	375.32	428.82	116.91	2,625.00	390.17	3,114.08	382.12
Other public	--	--	0.25	0.23	0.25	0.23	15.20	17.81	12.41	10.81	27.61	20.83	27.86	20.83
Total	774.35	260.56	261.55	85.24	1,035.90	274.06	2,295.20	374.66	613.51	126.87	2,908.71	391.17	3,944.61	426.46
Private:														
Corporate	23,546.98	1,106.93	1,020.52	138.81	24,567.50	1,112.86	--	--	--	--	--	--	24,567.50	1,112.86
Noncorporate private:														
Total, noncorporate private	12,228.04	739.91	5,462.48	338.31	17,690.51	804.74	--	--	--	--	--	--	17,690.51	804.74
All private	35,775.01	1,188.99	6,483.00	358.18	42,258.01	1,221.57	--	--	--	--	--	--	42,258.01	1,221.57
All owners	76,436.69	1,635.11	11,761.40	521.98	88,198.09	1,676.53	21,434.21	1,077.70	4,856.09	423.12	26,290.30	1,131.03	114,488.39	1,971.59

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C70.7: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, All California (10 year averages): 2007-2016

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	38,931.29	1,112.40	3,969.85	358.70	42,901.15	1,136.27	13,038.25	849.27	2,888.46	308.55	15,926.72	880.41	58,827.86	1,410.10
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	38,931.29	1,112.40	3,969.85	358.70	42,901.15	1,136.27	13,038.25	849.27	2,888.46	308.55	15,926.72	880.41	58,827.86	1,410.10
Other federal government:														
Bureau of Land Management	763.94	149.02	953.56	131.73	1,717.50	197.87	226.22	97.28	428.06	140.00	654.28	170.44	2,371.78	256.03
Department of Defense and Energy	23.14	16.12	70.27	38.14	93.42	41.40	--	--	3.66	3.92	3.66	3.92	97.08	41.59
National Park Service	--	--	--	--	--	--	5,840.42	597.39	1,361.22	318.11	7,201.64	661.49	7,201.64	661.49
U.S. Fish and Wildlife Service	--	--	--	--	--	--	1.55	1.59	--	--	1.55	1.59	1.55	1.59
Other federal	--	--	46.50	19.84	46.50	19.84	--	--	4.80	3.51	4.80	3.51	51.30	20.14
Total	787.08	149.67	1,070.34	137.94	1,857.42	202.34	6,068.19	598.77	1,797.73	345.25	7,865.92	674.57	9,723.35	678.14
State and local government:														
Local	359.46	228.75	244.86	87.26	604.33	244.69	95.86	46.18	161.35	55.15	257.21	69.83	861.54	254.01
State	448.38	138.06	38.76	18.40	487.15	139.22	2,238.13	378.44	446.03	118.60	2,684.16	393.42	3,171.31	383.88
Other public	--	--	0.25	0.23	0.25	0.23	15.20	17.81	12.41	10.81	27.61	20.84	27.86	20.84
Total	807.85	263.26	283.88	89.09	1,091.73	277.65	2,349.18	377.56	619.79	128.11	2,968.97	394.15	4,060.70	428.32
Private:														
Corporate	23,466.41	1,096.58	1,083.31	141.53	24,549.72	1,102.34	--	--	--	--	--	--	24,549.72	1,102.34
Noncorporate private:														
Total, noncorporate private	11,693.43	722.08	5,516.77	349.14	17,210.20	793.77	--	--	--	--	--	--	17,210.20	793.77
All private	35,159.84	1,177.54	6,600.08	368.89	41,759.91	1,214.02	--	--	--	--	--	--	41,759.91	1,214.02
All owners	75,686.06	1,640.21	11,924.15	538.16	87,610.21	1,687.04	21,455.62	1,102.61	5,305.99	480.40	26,761.62	1,173.93	114,371.82	2,005.10

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C70.8: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, All California (10 year averages): 2008-2017

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	39,519.92	1,170.73	3,911.75	356.16	43,431.68	1,194.06	13,277.69	888.80	2,900.45	311.42	16,178.15	919.81	59,609.82	1,481.46
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	39,519.92	1,170.73	3,911.75	356.16	43,431.68	1,194.06	13,277.69	888.80	2,900.45	311.42	16,178.15	919.81	59,609.82	1,481.46
Other federal government:														
Bureau of Land Management	790.99	149.82	986.86	139.04	1,777.85	202.94	226.07	97.25	479.46	150.95	705.53	179.53	2,483.38	266.03
Department of Defense and Energy	23.12	16.11	70.28	38.29	93.40	41.54	--	--	3.38	3.77	3.38	3.77	96.77	41.71
National Park Service	--	--	--	--	--	--	6,064.38	615.00	1,315.85	311.07	7,380.23	671.68	7,380.23	671.68
U.S. Fish and Wildlife Service	--	--	--	--	--	--	1.55	1.59	--	--	1.55	1.59	1.55	1.59
Other federal	--	--	36.41	18.99	36.41	18.99	--	--	1.46	1.06	1.46	1.06	37.87	19.01
Total	814.11	150.46	1,093.55	144.84	1,907.66	207.24	6,292.00	616.33	1,800.15	343.50	8,092.15	686.86	9,999.81	690.84
State and local government:														
Local	364.81	226.12	244.35	87.16	609.16	242.19	94.07	45.92	224.40	109.73	318.47	116.58	927.63	268.28
State	447.70	138.34	39.43	18.40	487.13	139.44	2,234.44	389.10	423.18	114.37	2,657.62	403.68	3,144.75	394.60
Other public	--	--	0.25	0.23	0.25	0.23	15.41	18.06	3.53	3.08	18.95	18.32	19.20	18.32
Total	812.51	260.85	284.03	88.99	1,096.54	275.30	2,343.92	388.19	651.12	154.16	2,995.03	413.76	4,091.57	441.62
Private:														
Corporate	23,221.14	1,045.80	1,184.73	149.79	24,405.87	1,052.71	--	--	--	--	--	--	24,405.87	1,052.71
Noncorporate private:														
Total, noncorporate private	11,008.48	710.22	5,367.14	345.40	16,375.61	781.41	--	--	--	--	--	--	16,375.61	781.41
All private	34,229.61	1,141.03	6,551.86	368.48	40,781.48	1,178.94	--	--	--	--	--	--	40,781.48	1,178.94
All owners	75,376.16	1,655.38	11,841.20	538.17	87,217.35	1,702.87	21,913.61	1,145.82	5,351.72	488.61	27,265.33	1,216.78	114,482.68	2,042.52

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C70.9: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, All California (10 year averages): 2009-2018

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	39,635.33	1,181.53	3,847.60	353.80	43,482.93	1,206.25	12,889.03	864.40	2,871.35	317.49	15,760.38	901.63	59,243.32	1,479.39
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	39,635.33	1,181.53	3,847.60	353.80	43,482.93	1,206.25	12,889.03	864.40	2,871.35	317.49	15,760.38	901.63	59,243.32	1,479.39
Other federal government:														
Bureau of Land Management	705.45	144.46	1,023.27	148.95	1,728.72	204.35	214.45	97.30	461.02	148.51	675.47	177.51	2,404.19	266.52
Department of Defense and Energy	21.70	15.39	68.61	37.34	90.31	40.39	--	--	3.38	3.76	3.38	3.76	93.68	40.56
National Park Service	--	--	--	--	--	--	6,322.75	680.68	1,315.86	311.78	7,638.61	730.16	7,638.61	730.16
U.S. Fish and Wildlife Service	--	--	--	--	--	--	1.55	1.59	--	--	1.55	1.59	1.55	1.59
Other federal	0.86	0.97	35.59	18.87	36.45	18.90	--	--	1.43	1.04	1.43	1.04	37.88	18.92
Total	728.01	145.10	1,127.47	154.19	1,855.48	208.49	6,538.74	682.00	1,781.69	343.26	8,320.43	743.74	10,175.91	746.69
State and local government:														
Local	365.29	225.94	235.23	84.42	600.52	241.20	115.53	49.93	228.54	107.30	344.07	115.50	944.59	266.87
State	469.51	139.09	42.33	19.39	511.84	140.31	2,092.98	347.49	451.79	120.74	2,544.78	365.43	3,056.62	356.06
Other public	--	--	--	--	--	--	14.58	17.51	3.53	3.07	18.11	17.78	18.11	17.78
Total	834.80	259.70	277.56	86.52	1,112.36	273.59	2,223.09	347.29	683.87	157.80	2,906.96	375.78	4,019.31	404.39
Private:														
Corporate	23,198.98	1,053.56	1,238.31	156.85	24,437.29	1,060.98	--	--	--	--	--	--	24,437.29	1,060.98
Noncorporate private:														
Total, noncorporate private	11,282.40	760.81	5,473.77	354.86	16,756.16	832.16	--	--	--	--	--	--	16,756.16	832.16
All private	34,481.37	1,179.15	6,712.08	380.21	41,193.45	1,219.78	--	--	--	--	--	--	41,193.45	1,219.78
All owners	75,679.51	1,690.20	11,964.72	546.70	87,644.23	1,740.81	21,650.87	1,151.36	5,336.90	493.49	26,987.77	1,224.46	114,632.00	2,079.05

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C70.10: Aboveground Carbon Mass of Down Dead Wood, by Owner Group and Forest Land Status, All California (10 year averages): 2010-2019

**information duplicated in Table C62*

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	40,835.26	1,246.74	3,732.58	348.64	44,567.85	1,269.66	13,522.62	901.60	3,014.28	337.58	16,536.90	939.99	61,104.75	1,550.94
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	40,835.26	1,246.74	3,732.58	348.64	44,567.85	1,269.66	13,522.62	901.60	3,014.28	337.58	16,536.90	939.99	61,104.75	1,550.94
Other federal government:														
Bureau of Land Management	759.58	170.69	984.23	143.37	1,743.82	219.74	205.93	96.70	498.19	151.57	704.11	179.77	2,447.93	279.87
Department of Defense and Energy	41.96	33.90	73.08	37.78	115.03	50.76	--	--	3.38	3.76	3.38	3.76	118.41	50.90
National Park Service	--	--	--	--	--	--	6,413.31	690.37	1,299.18	306.29	7,712.50	735.78	7,712.50	735.78
U.S. Fish and Wildlife Service	--	--	--	--	--	--	1.55	1.59	--	--	1.55	1.59	1.55	1.59
Other federal	0.86	0.97	25.92	15.11	26.78	15.14	--	--	1.40	1.02	1.40	1.02	28.18	15.18
Total	802.40	173.68	1,083.23	148.54	1,885.63	225.20	6,620.79	691.82	1,802.15	339.71	8,422.94	749.99	10,308.57	757.21
State and local government:														
Local	366.12	225.73	252.37	86.65	618.50	241.79	115.82	50.12	227.98	106.83	343.80	115.16	962.30	267.20
State	470.42	139.63	48.11	20.52	518.53	141.01	2,092.20	370.25	447.85	116.70	2,540.05	386.13	3,058.57	376.86
Other public	--	--	--	--	--	--	14.53	17.44	3.53	3.07	18.06	17.71	18.06	17.71
Total	836.54	259.82	300.48	88.92	1,137.02	274.47	2,222.55	369.93	679.36	155.52	2,901.91	396.31	4,038.93	423.81
Private:														
Corporate	23,015.47	1,061.98	1,356.60	165.89	24,372.07	1,069.50	--	--	--	--	--	--	24,372.07	1,069.50
Noncorporate private:														
Total, noncorporate private	11,558.62	772.33	5,299.82	349.31	16,858.44	840.33	--	--	--	--	--	--	16,858.44	840.33
All private	34,574.09	1,195.79	6,656.42	378.86	41,230.51	1,235.59	--	--	--	--	--	--	41,230.51	1,235.59
All owners	77,048.29	1,749.69	11,772.72	541.96	88,821.01	1,798.35	22,365.96	1,192.01	5,495.79	503.54	27,861.75	1,262.99	116,682.76	2,145.71

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C71: Forest Floor by Owner Group and Forest Land Status, 2010-2019: All California

**information duplicated in Table C79.10*

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	49,505.42	663.43	5,618.75	267.50	55,124.16	631.26	14,511.41	477.51	4,030.06	270.91	18,541.46	465.02	73,665.63	695.07
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	49,505.42	663.43	5,618.75	267.50	55,124.16	631.26	14,511.41	477.51	4,030.06	270.91	18,541.46	465.02	73,665.63	695.07
Other federal government:														
Bureau of Land Management	969.73	164.98	1,729.54	144.31	2,699.27	213.85	244.27	89.71	471.14	89.65	715.41	126.53	3,414.67	236.61
Department of Defense and Energy	46.31	27.19	164.59	43.06	210.89	50.92	--	--	14.24	15.85	14.24	15.85	225.14	53.33
National Park Service	--	--	--	--	--	--	5,999.67	368.58	1,522.14	197.92	7,521.81	394.83	7,521.81	394.83
U.S. Fish and Wildlife Service	--	--	--	--	--	--	16.22	16.66	1.19	1.15	17.42	16.70	17.42	16.70
Other federal	8.14	9.20	66.61	23.19	74.75	24.95	--	--	9.09	6.39	9.09	6.39	83.84	25.74
Total	1,024.17	166.71	1,960.74	149.97	2,984.91	218.34	6,260.16	367.63	2,017.80	211.20	8,277.97	391.83	11,262.88	382.19
State and local government:														
Local	259.58	90.47	259.28	54.27	518.85	106.56	149.28	59.96	337.46	70.15	486.74	87.76	1,005.60	135.02
State	538.22	127.15	149.79	48.44	688.01	136.28	1,389.79	144.96	542.86	87.66	1,932.65	165.47	2,620.66	175.59
Other public	--	--	1.31	1.23	1.31	1.23	20.67	24.80	27.98	24.34	48.65	34.75	49.95	34.77
Total	797.80	154.19	410.37	71.43	1,208.17	170.31	1,559.74	153.30	908.30	104.79	2,468.05	175.88	3,676.22	195.89
Private:														
Corporate	22,585.84	586.81	2,105.41	169.84	24,691.25	594.17	--	--	--	--	--	--	24,691.25	594.17
Noncorporate private:														
Total, noncorporate private	12,172.83	501.01	8,665.31	274.34	20,838.14	531.91	--	--	--	--	--	--	20,838.14	531.91
All private	34,758.67	569.97	10,770.72	297.83	45,529.39	559.55	--	--	--	--	--	--	45,529.39	559.55
All owners	86,086.06	884.96	18,760.57	429.41	104,846.63	857.99	22,331.31	617.97	6,956.17	359.06	29,287.48	628.56	134,134.11	922.93

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C72: Forest Floor by Owner Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	2.83	3.58	134.05	38.15	136.88	38.32	107.48	49.44	371.22	72.48	478.70	86.83	615.58	94.91
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	2.83	3.58	134.05	38.15	136.88	38.32	107.48	49.44	371.22	72.48	478.70	86.83	615.58	94.91
Other federal government:														
Bureau of Land Management	--	--	66.11	26.53	66.11	26.53	--	--	7.92	6.13	7.92	6.13	74.04	27.20
Department of Defense and Energy	--	--	96.18	30.41	96.18	30.41	--	--	--	--	--	--	96.18	30.41
National Park Service	--	--	--	--	--	--	--	--	42.55	30.87	42.55	30.87	42.55	30.87
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	4.45	5.26	4.45	5.26	--	--	0.18	0.20	0.18	0.20	4.64	5.26
Total	--	--	166.75	39.58	166.75	39.58	--	--	50.66	31.48	50.66	31.48	217.40	50.50
State and local government:														
Local	--	--	84.14	35.49	84.14	35.49	149.28	59.96	205.86	55.65	355.15	77.16	439.29	82.98
State	124.53	60.91	22.87	15.97	147.39	63.89	171.22	71.62	230.94	58.03	402.16	91.50	549.55	110.53
Other public	--	--	--	--	--	--	20.67	24.80	27.98	24.34	48.65	34.75	48.65	34.75
Total	124.53	60.91	107.01	38.92	231.53	72.99	341.16	93.49	464.79	78.53	805.95	114.68	1,037.49	130.10
Private:														
Corporate	182.57	70.85	307.73	63.20	490.30	94.73	--	--	--	--	--	--	490.30	94.73
Noncorporate private:														
Total, noncorporate private	665.46	129.89	1,580.01	141.30	2,245.47	190.37	--	--	--	--	--	--	2,245.47	190.37
All private	848.03	147.42	1,887.74	152.32	2,735.78	210.24	--	--	--	--	--	--	2,735.78	210.24
All owners	975.39	160.14	2,295.55	166.68	3,270.94	229.27	448.65	105.76	886.67	111.40	1,335.31	147.25	4,606.25	268.50

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C73: Forest Floor by Owner Group and Forest Land Status, 2010-2019: Central Valley

Ownership group	Unreserved forests						Reserved forests						All forest	
	Timberland		Other forest		Total		Productive		Other forest		Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal government:														
Bureau of Land Management	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	1.19	1.15	1.19	1.15	1.19	1.15
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	1.19	1.15	1.19	1.15	1.19	1.15
State and local government:														
Local	--	--	8.56	6.49	8.56	6.49	--	--	--	--	--	--	8.56	6.49
State	--	--	--	--	--	--	--	--	10.58	9.66	10.58	9.66	10.58	9.66
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	8.56	6.49	8.56	6.49	--	--	10.58	9.66	10.58	9.66	19.13	11.63
Private:														
Corporate	--	--	11.48	12.51	11.48	12.51	--	--	--	--	--	--	11.48	12.51
Noncorporate private:														
Total, noncorporate private	--	--	155.35	41.72	155.35	41.72	--	--	--	--	--	--	155.35	41.72
All private	--	--	166.83	43.55	166.83	43.55	--	--	--	--	--	--	166.83	43.55
All owners	--	--	175.38	44.03	175.38	44.03	--	--	11.77	9.72	11.77	9.72	187.15	45.09

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C74: Forest Floor by Owner Group and Forest Land Status, 2010-2019: Eastside

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	2,740.02	199.96	1,635.78	136.02	4,375.80	227.30	307.37	108.58	381.19	95.27	688.56	144.02	5,064.36	267.07
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	2,740.02	199.96	1,635.78	136.02	4,375.80	227.30	307.37	108.58	381.19	95.27	688.56	144.02	5,064.36	267.07
Other federal government:														
Bureau of Land Management	65.29	30.66	874.56	106.76	939.84	109.57	--	--	132.60	51.01	132.60	51.01	1,072.44	118.52
Department of Defense and Energy	--	--	61.72	29.69	61.72	29.69	--	--	--	--	--	--	61.72	29.69
National Park Service	--	--	--	--	--	--	--	--	139.97	46.86	139.97	46.86	139.97	46.86
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	65.29	30.66	936.27	110.09	1,001.56	112.66	--	--	272.57	68.04	272.57	68.04	1,274.13	126.93
State and local government:														
Local	--	--	--	--	--	--	--	--	--	--	--	--	--	--
State	--	--	--	--	--	--	32.89	36.09	10.49	11.32	43.38	37.83	43.38	37.83
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	32.89	36.09	10.49	11.32	43.38	37.83	43.38	37.83
Private:														
Corporate	998.23	169.98	161.43	46.76	1,159.66	177.09	--	--	--	--	--	--	1,159.66	177.09
Noncorporate private:														
Total, noncorporate private	352.35	99.08	257.59	56.38	609.95	114.75	--	--	--	--	--	--	609.95	114.75
All private	1,350.58	196.21	419.03	73.07	1,769.61	210.15	--	--	--	--	--	--	1,769.61	210.15
All owners	4,155.88	283.18	2,991.08	189.84	7,146.97	329.54	340.25	114.42	664.26	117.62	1,004.51	163.71	8,151.48	364.74

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C75: Forest Floor by Owner Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	14,030.35	446.99	1,064.88	133.87	15,095.23	439.60	6,833.05	333.83	772.30	120.69	7,605.35	334.63	22,700.57	483.83
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	14,030.35	446.99	1,064.88	133.87	15,095.23	439.60	6,833.05	333.83	772.30	120.69	7,605.35	334.63	22,700.57	483.83
Other federal government:														
Bureau of Land Management	424.08	116.95	292.32	67.66	716.40	133.88	47.15	44.26	61.49	31.94	108.65	54.58	825.05	141.06
Department of Defense and Energy	--	--	--	--	--	--	--	--	14.24	15.85	14.24	15.85	14.24	15.85
National Park Service	--	--	--	--	--	--	268.33	81.83	110.09	43.86	378.42	92.30	378.42	92.30
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	8.14	9.20	5.93	4.99	14.06	10.47	--	--	1.53	1.81	1.53	1.81	15.60	10.62
Total	432.22	117.27	298.25	67.84	730.47	134.21	315.48	89.92	187.36	56.26	502.84	105.59	1,233.31	158.76
State and local government:														
Local	44.59	49.04	25.88	18.28	70.47	52.34	--	--	10.87	10.47	10.87	10.47	81.34	53.37
State	36.01	24.66	49.77	27.92	85.78	37.25	50.17	39.23	49.77	33.76	99.94	55.94	185.72	67.21
Other public	--	--	1.31	1.23	1.31	1.23	--	--	--	--	--	--	1.31	1.23
Total	80.59	54.89	76.96	33.39	157.55	64.25	50.17	39.23	60.65	35.35	110.81	56.92	268.37	85.74
Private:														
Corporate	4,829.03	389.41	749.39	104.82	5,578.42	401.07	--	--	--	--	--	--	5,578.42	401.07
Noncorporate private:														
Total, noncorporate private	3,344.28	303.89	2,194.37	160.97	5,538.65	342.06	--	--	--	--	--	--	5,538.65	342.06
All private	8,173.31	472.67	2,943.76	188.03	11,117.07	503.78	--	--	--	--	--	--	11,117.07	503.78
All owners	22,716.47	665.08	4,383.85	243.21	27,100.32	685.17	7,198.70	346.64	1,020.30	137.77	8,219.00	354.06	35,319.32	717.87

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C76: Forest Floor by Owner Group and Forest Land Status, 2010-2019: North Coast

Ownership group	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
<i>thousand metric tons C</i>														
USDA Forest Service:														
National Forest	96.28	51.10	13.99	16.21	110.27	53.61	57.56	43.21	--	--	57.56	43.21	167.83	68.76
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	96.28	51.10	13.99	16.21	110.27	53.61	57.56	43.21	--	--	57.56	43.21	167.83	68.76
Other federal government:														
Bureau of Land Management	137.89	53.00	--	--	137.89	53.00	140.51	59.61	--	--	140.51	59.61	278.40	78.79
Department of Defense and Energy	41.98	26.83	0.18	0.20	42.16	26.83	--	--	--	--	--	--	42.16	26.83
National Park Service	--	--	--	--	--	--	199.45	73.66	22.93	22.07	222.38	76.73	222.38	76.73
U.S. Fish and Wildlife Service	--	--	--	--	--	--	16.22	16.66	--	--	16.22	16.66	16.22	16.66
Other federal	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	179.86	58.70	0.18	0.20	180.04	58.70	356.19	93.80	22.93	22.07	379.12	96.16	559.16	107.28
State and local government:														
Local	91.52	41.60	16.27	11.57	107.79	45.79	--	--	94.70	43.38	94.70	43.38	202.49	63.08
State	211.44	70.01	2.70	2.45	214.14	70.06	623.34	94.94	49.55	35.47	672.88	101.77	887.02	97.27
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	302.96	78.42	18.97	11.82	321.92	80.75	623.34	94.94	144.25	55.94	767.59	110.39	1,089.51	106.84
Private:														
Corporate	4,626.05	287.66	73.36	31.20	4,699.41	289.31	--	--	--	--	--	--	4,699.41	289.31
Noncorporate private:														
Total, noncorporate private	3,440.33	257.80	395.86	78.74	3,836.19	265.07	--	--	--	--	--	--	3,836.19	265.07
All private	8,066.38	338.16	469.22	84.69	8,535.60	343.74	--	--	--	--	--	--	8,535.60	343.74
All owners	8,645.47	355.80	502.37	87.04	9,147.84	361.85	1,037.09	140.28	167.18	60.14	1,204.27	152.64	10,352.10	380.34

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C77: Forest Floor by Owner Group and Forest Land Status, 2010-2019: Sierra Cascades

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	32,124.27	611.43	2,051.84	181.31	34,176.11	595.41	6,700.75	359.29	2,142.18	215.20	8,842.93	356.96	43,019.04	670.58
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	32,124.27	611.43	2,051.84	181.31	34,176.11	595.41	6,700.75	359.29	2,142.18	215.20	8,842.93	356.96	43,019.04	670.58
Other federal government:														
Bureau of Land Management	342.47	110.14	453.67	74.05	796.14	132.69	56.60	52.03	247.74	70.01	304.34	87.23	1,100.49	157.29
Department of Defense and Energy	--	--	--	--	--	--	--	--	--	--	--	--	--	--
National Park Service	--	--	--	--	--	--	5,531.88	362.45	1,106.97	183.66	6,638.86	385.10	6,638.86	385.10
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	27.20	14.99	27.20	14.99	--	--	6.36	6.04	6.36	6.04	33.57	16.16
Total	342.47	110.14	480.87	75.31	823.34	133.40	5,588.49	362.26	1,361.08	193.14	6,949.56	384.80	7,772.91	386.94
State and local government:														
Local	123.48	63.62	90.23	31.72	213.70	71.09	--	--	20.27	13.55	20.27	13.55	233.98	72.37
State	166.25	87.99	74.45	36.14	240.70	95.12	448.87	125.94	102.12	33.43	551.00	130.30	791.70	155.86
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	289.73	108.58	164.68	47.66	454.40	118.20	448.87	125.94	122.40	36.07	571.27	131.00	1,025.68	170.90
Private:														
Corporate	11,925.19	553.51	751.55	106.88	12,676.75	561.70	--	--	--	--	--	--	12,676.75	561.70
Noncorporate private:														
Total, noncorporate private	4,332.42	361.50	3,710.42	194.16	8,042.84	400.00	--	--	--	--	--	--	8,042.84	400.00
All private	16,257.62	604.55	4,461.98	214.49	20,719.59	627.18	--	--	--	--	--	--	20,719.59	627.18
All owners	49,014.08	867.30	7,159.36	292.70	56,173.44	874.07	12,738.11	525.30	3,625.66	291.37	16,363.77	540.44	72,537.21	984.33

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C78: Forest Floor by Owner Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	511.68	123.65	718.20	87.34	1,229.88	143.34	505.20	120.38	363.17	76.42	868.37	140.18	2,098.25	198.72
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	511.68	123.65	718.20	87.34	1,229.88	143.34	505.20	120.38	363.17	76.42	868.37	140.18	2,098.25	198.72
Other federal government:														
Bureau of Land Management	--	--	42.88	17.02	42.88	17.02	--	--	21.38	11.90	21.38	11.90	64.26	20.74
Department of Defense and Energy	4.33	4.36	6.51	7.50	10.84	8.67	--	--	--	--	--	--	10.84	8.67
National Park Service	--	--	--	--	--	--	--	--	99.63	27.80	99.63	27.80	99.63	27.80
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	29.03	16.14	29.03	16.14	--	--	1.01	1.01	1.01	1.01	30.04	16.17
Total	4.33	4.36	78.42	24.62	82.75	25.00	--	--	122.02	30.23	122.02	30.23	204.77	39.14
State and local government:														
Local	--	--	34.20	18.56	34.20	18.56	--	--	5.75	5.00	5.75	5.00	39.95	18.98
State	--	--	--	--	--	--	63.31	50.91	89.40	34.88	152.72	61.27	152.72	61.27
Other public	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	34.20	18.56	34.20	18.56	63.31	50.91	95.15	34.93	158.46	61.30	192.67	63.59
Private:														
Corporate	24.76	24.51	50.46	19.49	75.22	31.32	--	--	--	--	--	--	75.22	31.32
Noncorporate private:														
Total, noncorporate private	37.99	25.00	371.70	68.37	409.69	74.91	--	--	--	--	--	--	409.69	74.91
All private	62.76	35.01	422.16	71.06	484.92	81.11	--	--	--	--	--	--	484.92	81.11
All owners	578.77	128.59	1,252.98	116.42	1,831.75	167.33	568.51	130.70	580.33	89.29	1,148.85	155.95	2,980.60	227.03

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C79.1: Forest Floor by Owner Group and Forest Land Status, All California (10 year averages): 2001-2010

Ownership group	Unreserved forests						Reserved forests						All forest land	
	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 metric tons C</i>													
USDA Forest Service:														
National Forest	49,658.22	679.95	7,135.35	305.91	56,793.57	650.10	13,926.52	477.26	4,012.24	267.65	17,938.77	467.36	74,732.33	699.57
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	49,658.22	679.95	7,135.35	305.91	56,793.57	650.10	13,926.52	477.26	4,012.24	267.65	17,938.77	467.36	74,732.33	699.57
Other federal government:														
Bureau of Land Management	1,291.81	199.22	2,193.99	171.72	3,485.81	258.40	142.75	69.82	510.30	97.07	653.04	119.45	4,138.85	276.63
Department of Defense and Energy	16.27	15.56	144.71	40.56	160.98	43.28	--	--	--	--	--	--	160.98	43.28
National Park Service	--	--	--	--	--	--	6,206.60	387.36	1,536.85	192.81	7,743.45	411.24	7,743.45	411.24
U.S. Fish and Wildlife Service	--	--	--	--	--	--	25.65	25.47	3.35	3.39	29.00	25.70	29.00	25.70
Other federal	--	--	155.98	42.88	155.98	42.88	100.40	67.18	40.86	30.47	141.25	73.77	297.23	85.31
Total	1,308.08	199.50	2,494.68	178.93	3,802.77	262.82	6,475.39	385.16	2,091.35	210.19	8,566.74	409.78	12,369.51	421.26
State and local government:														
Local	155.83	62.19	222.34	52.50	378.18	82.48	156.44	68.55	397.71	75.84	554.14	97.55	932.32	125.30
State	426.07	116.22	94.67	35.83	520.74	121.46	1,283.07	152.97	608.54	94.92	1,891.61	172.98	2,412.36	179.87
Other public	--	--	7.55	6.59	7.55	6.59	19.86	23.86	26.51	21.51	46.37	32.13	53.92	32.79
Total	581.90	130.88	324.57	63.78	906.47	145.85	1,459.37	161.38	1,032.76	110.93	2,492.13	182.42	3,398.60	193.35
Private:														
Corporate	20,045.94	612.41	1,121.38	124.51	21,167.32	617.20	--	--	--	--	--	--	21,167.32	617.20
Noncorporate private:														
Total, noncorporate private	15,022.60	568.18	10,207.25	294.86	25,229.85	599.55	--	--	--	--	--	--	25,229.85	599.55
All private	35,068.54	597.01	11,328.63	305.73	46,397.17	588.27	--	--	--	--	--	--	46,397.17	588.27
All owners	86,616.74	908.18	21,283.23	467.12	107,899.97	887.66	21,861.29	629.54	7,136.35	357.72	28,997.64	641.18	136,897.61	947.05

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C79.2: Forest Floor by Owner Group and Forest Land Status, All California (10 year averages): 2002-2011

Ownership group	Unreserved forests						Reserved forests						All forest land	
	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 metric tons C</i>													
USDA Forest Service:														
National Forest	49,756.97	679.14	6,897.14	302.60	56,654.11	647.76	13,906.07	468.14	4,046.67	272.11	17,952.74	458.75	74,606.85	691.99
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	49,756.97	679.14	6,897.14	302.60	56,654.11	647.76	13,906.07	468.14	4,046.67	272.11	17,952.74	458.75	74,606.85	691.99
Other federal government:														
Bureau of Land Management	1,294.43	199.24	2,157.23	169.98	3,451.66	257.32	143.04	69.84	516.75	98.04	659.80	120.25	4,111.45	275.95
Department of Defense and Energy	22.05	16.88	145.69	40.76	167.74	43.91	--	--	--	--	--	--	167.74	43.91
National Park Service	--	--	--	--	--	--	6,238.61	388.13	1,530.28	192.73	7,768.88	411.91	7,768.88	411.91
U.S. Fish and Wildlife Service	--	--	--	--	--	--	25.65	25.49	3.36	3.40	29.01	25.72	29.01	25.72
Other federal	--	--	156.64	43.01	156.64	43.01	100.40	67.23	40.86	30.49	141.26	73.83	297.90	85.43
Total	1,316.48	199.56	2,459.56	177.30	3,776.04	261.70	6,507.69	385.82	2,091.25	210.58	8,598.95	410.65	12,374.99	421.53
State and local government:														
Local	132.74	59.29	219.75	52.55	352.49	80.36	158.84	69.14	399.76	76.17	558.59	97.87	911.08	124.27
State	430.49	116.37	98.72	38.14	529.21	122.29	1,322.77	148.49	639.15	98.29	1,961.92	171.02	2,491.13	176.10
Other public	--	--	7.61	6.71	7.61	6.71	20.95	24.55	22.44	21.00	43.40	32.31	51.00	32.99
Total	563.22	129.74	326.08	65.16	889.30	145.43	1,502.56	156.99	1,061.35	113.29	2,563.91	180.30	3,453.21	188.42
Private:														
Corporate	19,791.94	605.32	1,292.87	134.01	21,084.81	611.63	--	--	--	--	--	--	21,084.81	611.63
Noncorporate private:														
Total, noncorporate private	15,058.81	568.76	9,900.15	291.72	24,958.96	600.07	--	--	--	--	--	--	24,958.96	600.07
All private	34,850.75	589.94	11,193.01	304.54	46,043.77	582.40	--	--	--	--	--	--	46,043.77	582.40
All owners	86,487.43	903.23	20,875.80	463.94	107,363.23	882.38	21,916.32	622.33	7,199.28	362.03	29,115.59	635.24	136,478.82	939.10

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C79.3: Forest Floor by Owner Group and Forest Land Status, All California (10 year averages): 2003-2012

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	50,005.89	678.09	6,569.94	295.14	56,575.83	644.91	13,967.13	468.22	4,126.94	274.79	18,094.07	458.86	74,669.90	695.21
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	50,005.89	678.09	6,569.94	295.14	56,575.83	644.91	13,967.13	468.22	4,126.94	274.79	18,094.07	458.86	74,669.90	695.21
Other federal government:														
Bureau of Land Management	1,343.42	203.66	2,097.69	166.99	3,441.10	259.22	171.11	74.12	496.85	97.15	667.96	122.07	4,109.07	277.38
Department of Defense and Energy	22.05	16.89	146.31	40.83	168.36	43.99	--	--	15.43	16.54	15.43	16.54	183.79	46.99
National Park Service	--	--	--	--	--	--	6,251.17	391.24	1,536.29	196.39	7,787.46	413.91	7,787.46	413.91
U.S. Fish and Wildlife Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other federal	--	--	178.41	45.69	178.41	45.69	66.77	59.73	40.94	30.52	107.71	67.07	286.11	81.14
Total	1,365.47	203.83	2,422.40	175.09	3,787.86	263.77	6,489.05	388.12	2,089.51	214.13	8,578.56	410.37	12,366.43	420.88
State and local government:														
Local	150.53	62.42	220.08	52.66	370.60	82.76	160.14	69.77	402.09	77.50	562.23	99.61	932.84	127.12
State	432.97	116.90	115.28	41.45	548.25	123.85	1,362.94	146.01	611.57	96.18	1,974.51	167.69	2,522.76	171.99
Other public	--	--	7.61	6.71	7.61	6.71	21.54	25.25	24.06	21.76	45.60	33.34	53.21	34.01
Total	583.50	131.67	342.97	67.14	926.47	147.84	1,544.62	154.49	1,037.73	111.42	2,582.35	176.77	3,508.81	184.77
Private:														
Corporate	19,819.10	597.28	1,371.37	136.43	21,190.46	603.93	--	--	--	--	--	--	21,190.46	603.93
Noncorporate private:														
Total, noncorporate private	14,877.84	565.21	9,739.05	292.07	24,616.89	598.60	--	--	--	--	--	--	24,616.89	598.60
All private	34,696.94	581.62	11,110.42	304.54	45,807.35	575.97	--	--	--	--	--	--	45,807.35	575.97
All owners	86,651.80	898.01	20,445.72	458.51	107,097.52	876.68	22,000.81	624.47	7,254.17	365.60	29,254.98	636.37	136,352.50	938.93

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C79.4: Forest Floor by Owner Group and Forest Land Status, All California (10 year averages): 2004-2013

Ownership group	Unreserved forests						Reserved forests						All forest land	
	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 metric tons C</i>													
USDA Forest Service:														
National Forest	49,878.04	671.08	6,378.73	289.17	56,256.78	637.74	14,010.24	470.32	4,118.28	277.47	18,128.52	461.12	74,385.29	694.59
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	49,878.04	671.08	6,378.73	289.17	56,256.78	637.74	14,010.24	470.32	4,118.28	277.47	18,128.52	461.12	74,385.29	694.59
Other federal government:														
Bureau of Land Management	1,299.71	197.21	2,032.33	163.86	3,332.04	252.06	189.71	77.19	508.67	97.51	698.38	124.24	4,030.42	271.20
Department of Defense and Energy	22.05	16.88	147.81	41.03	169.86	44.18	--	--	15.43	16.53	15.43	16.53	185.29	47.17
National Park Service	--	--	--	--	--	--	6,295.87	389.41	1,510.75	196.66	7,806.62	412.16	7,806.62	412.16
U.S. Fish and Wildlife Service	--	--	--	--	--	--	16.22	16.69	1.19	1.15	17.41	16.73	17.41	16.73
Other federal	--	--	163.50	41.35	163.50	41.35	--	--	14.39	8.37	14.39	8.37	177.89	42.16
Total	1,321.76	197.39	2,343.64	171.23	3,665.40	256.13	6,501.80	387.54	2,050.43	212.91	8,552.23	409.87	12,217.63	415.49
State and local government:														
Local	153.19	63.71	233.01	53.92	386.20	84.52	145.49	62.02	385.56	72.29	531.05	90.73	917.25	121.01
State	448.75	121.43	116.17	41.53	564.92	128.16	1,373.52	145.24	563.96	91.13	1,937.48	163.52	2,502.40	169.17
Other public	--	--	9.58	7.08	9.58	7.08	21.54	25.25	25.92	22.59	47.47	33.88	57.05	34.61
Total	601.94	136.21	358.77	68.19	960.71	152.34	1,540.55	154.40	975.44	107.27	2,515.99	174.21	3,476.70	183.40
Private:														
Corporate	20,065.82	598.23	1,410.31	138.29	21,476.13	604.67	--	--	--	--	--	--	21,476.13	604.67
Noncorporate private:														
Total, noncorporate private	14,657.00	566.90	9,617.26	289.56	24,274.26	598.89	--	--	--	--	--	--	24,274.26	598.89
All private	34,722.82	585.79	11,027.57	302.90	45,750.39	579.87	--	--	--	--	--	--	45,750.39	579.87
All owners	86,524.55	896.20	20,108.72	452.31	106,633.27	874.26	22,052.59	625.68	7,144.16	365.66	29,196.74	636.99	135,830.02	940.08

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C79.5: Forest Floor by Owner Group and Forest Land Status, All California (10 year averages): 2005-2014

Ownership group	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
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	49,807.64	672.94	6,279.59	288.45	56,087.24	639.51	14,150.87	475.85	4,074.70	279.23	18,225.57	464.40	74,312.80	701.46
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	49,807.64	672.94	6,279.59	288.45	56,087.24	639.51	14,150.87	475.85	4,074.70	279.23	18,225.57	464.40	74,312.80	701.46
Other federal government:														
Bureau of Land Management	1,285.01	195.00	1,965.79	158.68	3,250.80	247.08	211.65	80.81	460.54	87.97	672.19	119.07	3,922.99	263.71
Department of Defense and Energy	22.46	17.23	142.26	40.80	164.72	44.29	--	--	15.43	16.52	15.43	16.52	180.15	47.27
National Park Service	--	--	--	--	--	--	6,317.19	390.28	1,484.78	195.98	7,801.96	413.35	7,801.96	413.35
U.S. Fish and Wildlife Service	--	--	--	--	--	--	16.23	16.69	1.19	1.15	17.43	16.73	17.43	16.73
Other federal	--	--	165.36	41.36	165.36	41.36	--	--	14.39	8.36	14.39	8.36	179.75	42.17
Total	1,307.46	195.18	2,273.41	166.41	3,580.88	251.49	6,545.07	388.56	1,976.33	208.60	8,521.40	409.28	12,102.28	411.87
State and local government:														
Local	233.39	84.71	251.99	54.88	485.38	101.80	145.49	61.98	378.83	71.71	524.31	90.16	1,009.69	133.25
State	470.71	123.00	118.66	41.24	589.37	130.00	1,370.73	144.69	569.20	91.58	1,939.93	163.34	2,529.29	170.23
Other public	--	--	8.78	6.93	8.78	6.93	21.54	25.23	25.92	22.58	47.47	33.86	56.25	34.56
Total	704.10	148.49	379.43	68.74	1,083.53	164.01	1,537.75	153.88	973.95	107.25	2,511.70	173.74	3,595.24	192.60
Private:														
Corporate	20,396.43	601.23	1,573.45	145.97	21,969.89	609.47	--	--	--	--	--	--	21,969.89	609.47
Noncorporate private:														
Total, noncorporate private	14,161.63	552.47	9,402.84	288.36	23,564.48	585.38	--	--	--	--	--	--	23,564.48	585.38
All private	34,558.07	580.65	10,976.30	302.46	45,534.36	574.66	--	--	--	--	--	--	45,534.36	574.66
All owners	86,377.27	895.52	19,908.74	450.14	106,286.01	872.62	22,233.69	630.30	7,024.98	364.51	29,258.67	638.82	135,544.68	942.76

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C79.6: Forest Floor by Owner Group and Forest Land Status, All California (10 year averages): 2006-2015

Ownership group	Unreserved forests						Reserved forests						All forest land	
	Timberland		Other forest		Total		Productive		Other forest		Total		Total	
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	49,875.18	670.66	6,011.14	279.57	55,886.32	635.81	14,208.41	473.02	4,010.62	275.54	18,219.04	461.48	74,105.36	698.93
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	49,875.18	670.66	6,011.14	279.57	55,886.32	635.81	14,208.41	473.02	4,010.62	275.54	18,219.04	461.48	74,105.36	698.93
Other federal government:														
Bureau of Land Management	1,315.24	200.43	1,876.62	152.09	3,191.86	247.17	237.56	84.51	464.49	88.66	702.04	122.12	3,893.90	264.70
Department of Defense and Energy	24.07	18.66	142.80	40.91	166.87	44.96	--	--	15.43	16.53	15.43	16.53	182.30	47.91
National Park Service	--	--	--	--	--	--	6,297.23	390.23	1,490.63	196.98	7,787.87	413.58	7,787.87	413.58
U.S. Fish and Wildlife Service	--	--	--	--	--	--	16.23	16.69	1.19	1.15	17.43	16.73	17.43	16.73
Other federal	--	--	166.00	41.56	166.00	41.56	--	--	14.39	8.37	14.39	8.37	180.40	42.36
Total	1,339.31	200.64	2,185.42	160.20	3,524.73	251.81	6,551.02	389.31	1,986.14	209.80	8,537.16	410.30	12,061.89	412.12
State and local government:														
Local	214.67	82.73	252.97	54.92	467.64	100.18	141.27	59.63	366.72	70.64	507.98	87.95	975.62	130.50
State	525.96	129.94	115.78	41.75	641.74	136.74	1,370.43	144.63	559.89	91.46	1,930.32	163.19	2,572.06	176.25
Other public	--	--	9.04	7.06	9.04	7.06	21.54	25.24	26.25	22.87	47.80	34.06	56.84	34.78
Total	740.63	153.02	377.80	69.04	1,118.42	168.18	1,533.24	152.98	952.86	106.55	2,486.10	172.77	3,604.52	196.11
Private:														
Corporate	20,921.30	601.42	1,782.75	155.26	22,704.05	611.63	--	--	--	--	--	--	22,704.05	611.63
Noncorporate private:														
Total, noncorporate private	13,783.23	546.08	9,143.75	285.56	22,926.98	578.86	--	--	--	--	--	--	22,926.98	578.86
All private	34,704.53	580.55	10,926.50	302.41	45,631.03	574.56	--	--	--	--	--	--	45,631.03	574.56
All owners	86,659.65	894.61	19,500.86	442.57	106,160.51	869.39	22,292.67	627.87	6,949.62	362.26	29,242.29	637.04	135,402.80	939.92

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C79.7: Forest Floor by Owner Group and Forest Land Status, All California (10 year averages): 2007-2016

Ownership group	Unreserved forests						Reserved forests						All forest land	
	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 metric tons C</i>													
USDA Forest Service:														
National Forest	49,794.90	667.69	5,856.98	275.12	55,651.89	631.25	14,383.36	470.62	4,029.36	271.61	18,412.73	458.16	74,064.61	697.08
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	49,794.90	667.69	5,856.98	275.12	55,651.89	631.25	14,383.36	470.62	4,029.36	271.61	18,412.73	458.16	74,064.61	697.08
Other federal government:														
Bureau of Land Management	1,211.11	190.86	1,853.77	151.01	3,064.88	239.66	287.74	95.98	463.94	88.62	751.68	130.27	3,816.56	261.19
Department of Defense and Energy	46.60	26.93	150.15	41.54	196.75	49.50	--	--	15.43	16.53	15.43	16.53	212.18	52.19
National Park Service	--	--	--	--	--	--	6,222.49	378.45	1,500.43	197.47	7,722.92	402.56	7,722.92	402.56
U.S. Fish and Wildlife Service	--	--	--	--	--	--	16.23	16.69	1.19	1.15	17.42	16.73	17.42	16.73
Other federal	--	--	154.34	39.84	154.34	39.84	--	--	14.71	8.48	14.71	8.48	169.05	40.72
Total	1,257.71	192.06	2,158.26	159.07	3,415.97	245.15	6,526.46	375.90	1,995.71	210.26	8,522.16	397.43	11,938.13	397.90
State and local government:														
Local	265.01	91.20	279.84	57.40	544.84	109.57	141.86	59.89	369.57	71.25	511.43	88.43	1,056.27	137.64
State	519.46	125.57	121.93	43.23	641.39	133.06	1,380.43	146.41	563.86	91.89	1,944.30	164.72	2,585.68	174.21
Other public	--	--	9.04	7.06	9.04	7.06	21.54	25.25	26.25	22.88	47.80	34.07	56.83	34.80
Total	784.47	153.87	410.80	71.02	1,195.27	170.35	1,543.83	154.70	959.69	107.07	2,503.52	174.07	3,698.79	197.59
Private:														
Corporate	21,360.23	596.67	1,913.88	159.95	23,274.11	606.85	--	--	--	--	--	--	23,274.11	606.85
Noncorporate private:														
Total, noncorporate private	13,248.75	539.54	9,015.62	282.44	22,264.37	571.91	--	--	--	--	--	--	22,264.37	571.91
All private	34,608.98	579.07	10,929.50	299.95	45,538.48	571.64	--	--	--	--	--	--	45,538.48	571.64
All owners	86,446.06	890.29	19,355.54	437.95	105,801.60	863.02	22,453.65	618.11	6,984.75	359.70	29,438.41	626.65	135,240.01	931.01

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C79.8: Forest Floor by Owner Group and Forest Land Status, All California (10 year averages): 2008-2017

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	49,561.10	667.28	5,844.74	275.35	55,405.84	631.18	14,367.32	471.39	4,019.86	270.53	18,387.19	460.10	73,793.03	697.43
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	49,561.10	667.28	5,844.74	275.35	55,405.84	631.18	14,367.32	471.39	4,019.86	270.53	18,387.19	460.10	73,793.03	697.43
Other federal government:														
Bureau of Land Management	1,226.79	191.38	1,844.22	150.79	3,071.01	239.78	284.08	94.86	471.21	89.45	755.29	130.02	3,826.30	261.22
Department of Defense and Energy	46.58	26.92	150.53	41.65	197.11	49.59	--	--	14.24	15.88	14.24	15.88	211.36	52.07
National Park Service	--	--	--	--	--	--	6,126.65	375.28	1,486.10	196.82	7,612.75	399.90	7,612.75	399.90
U.S. Fish and Wildlife Service	--	--	--	--	--	--	16.23	16.69	1.19	1.15	17.42	16.73	17.42	16.73
Other federal	--	--	83.48	26.82	83.48	26.82	--	--	9.40	6.60	9.40	6.60	92.88	27.60
Total	1,273.37	192.58	2,078.23	156.10	3,351.60	243.46	6,426.96	373.41	1,982.14	210.04	8,409.10	395.97	11,760.71	395.37
State and local government:														
Local	260.31	91.11	275.88	57.28	536.19	108.60	143.57	60.53	347.06	69.80	490.63	87.84	1,026.82	136.57
State	520.76	126.22	121.69	43.32	642.45	133.70	1,388.40	145.45	528.91	86.85	1,917.32	165.39	2,559.77	176.00
Other public	--	--	9.03	7.06	9.03	7.06	21.85	25.60	27.98	24.38	49.83	35.35	58.86	36.05
Total	781.08	154.16	406.60	70.97	1,187.67	170.11	1,553.82	154.06	903.96	103.06	2,457.77	175.05	3,645.45	197.45
Private:														
Corporate	22,176.91	599.40	2,027.92	164.18	24,204.83	609.21	--	--	--	--	--	--	24,204.83	609.21
Noncorporate private:														
Total, noncorporate private	12,415.67	517.56	8,869.81	280.02	21,285.47	551.97	--	--	--	--	--	--	21,285.47	551.97
All private	34,592.58	578.53	10,897.72	299.41	45,490.30	571.23	--	--	--	--	--	--	45,490.30	571.23
All owners	86,208.13	890.12	19,227.29	436.76	105,435.42	862.90	22,348.10	617.01	6,905.96	357.64	29,254.07	627.45	134,689.48	930.24

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C79.9: Forest Floor by Owner Group and Forest Land Status, All California (10 year averages): 2009-2018

Ownership group	Unreserved forests						Reserved forests						All forest land	
	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 metric tons C</i>													
USDA Forest Service:														
National Forest	49,430.30	664.79	5,855.01	275.84	55,285.31	629.70	14,397.74	475.19	4,025.73	272.17	18,423.47	464.04	73,708.77	694.27
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	49,430.30	664.79	5,855.01	275.84	55,285.31	629.70	14,397.74	475.19	4,025.73	272.17	18,423.47	464.04	73,708.77	694.27
Other federal government:														
Bureau of Land Management	1,063.03	175.72	1,824.63	150.86	2,887.66	226.35	260.32	91.70	466.10	89.22	726.42	127.60	3,614.08	247.81
Department of Defense and Energy	44.80	26.25	156.16	42.17	200.96	49.67	--	--	14.24	15.87	14.24	15.87	215.21	52.15
National Park Service	--	--	--	--	--	--	6,079.93	373.34	1,508.51	198.07	7,588.44	398.96	7,588.44	398.96
U.S. Fish and Wildlife Service	--	--	--	--	--	--	16.23	16.68	1.19	1.15	17.42	16.72	17.42	16.72
Other federal	8.14	9.21	77.25	25.83	85.39	27.42	--	--	9.28	6.52	9.28	6.52	94.67	28.16
Total	1,115.97	177.25	2,058.04	156.23	3,174.01	230.52	6,356.48	372.67	1,999.33	211.12	8,355.81	396.09	11,529.82	387.50
State and local government:														
Local	258.99	90.40	268.14	56.07	527.13	107.52	149.02	59.90	338.96	70.24	487.98	87.78	1,015.11	135.93
State	543.64	127.71	139.20	46.91	682.85	136.26	1,384.15	145.25	523.82	86.55	1,907.97	165.13	2,590.82	174.86
Other public	--	--	1.32	1.24	1.32	1.24	20.67	24.83	27.98	24.36	48.65	34.79	49.97	34.81
Total	802.63	154.60	408.67	71.96	1,211.30	171.14	1,553.84	153.65	890.77	103.89	2,444.61	175.61	3,655.90	196.44
Private:														
Corporate	22,390.84	591.08	2,069.56	165.16	24,460.40	600.54	--	--	--	--	--	--	24,460.40	600.54
Noncorporate private:														
Total, noncorporate private	12,255.79	512.45	8,796.67	278.37	21,052.46	545.19	--	--	--	--	--	--	21,052.46	545.19
All private	34,646.63	572.75	10,866.23	298.44	45,512.86	564.29	--	--	--	--	--	--	45,512.86	564.29
All owners	85,995.53	887.90	19,187.95	436.44	105,183.47	860.45	22,308.06	619.43	6,915.83	359.76	29,223.89	630.67	134,407.36	926.71

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table C79.10: Forest Floor by Owner Group and Forest Land Status, All California (10 year averages): 2010-2019

**information duplicated in Table C71*

Ownership group	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	SE
	<i>thousand metric tons C</i>													
USDA Forest Service:														
National Forest	49,505.42	663.43	5,618.75	267.50	55,124.16	631.26	14,511.41	477.51	4,030.06	270.91	18,541.46	465.02	73,665.63	695.07
National Grasslands	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other Forest Service	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	49,505.42	663.43	5,618.75	267.50	55,124.16	631.26	14,511.41	477.51	4,030.06	270.91	18,541.46	465.02	73,665.63	695.07
Other federal government:														
Bureau of Land Management	969.73	164.98	1,729.54	144.31	2,699.27	213.85	244.27	89.71	471.14	89.65	715.41	126.53	3,414.67	236.61
Department of Defense and Energy	46.31	27.19	164.59	43.06	210.89	50.92	--	--	14.24	15.85	14.24	15.85	225.14	53.33
National Park Service	--	--	--	--	--	--	5,999.67	368.58	1,522.14	197.92	7,521.81	394.83	7,521.81	394.83
U.S. Fish and Wildlife Service	--	--	--	--	--	--	16.22	16.66	1.19	1.15	17.42	16.70	17.42	16.70
Other federal	8.14	9.20	66.61	23.19	74.75	24.95	--	--	9.09	6.39	9.09	6.39	83.84	25.74
Total	1,024.17	166.71	1,960.74	149.97	2,984.91	218.34	6,260.16	367.63	2,017.80	211.20	8,277.97	391.83	11,262.88	382.19
State and local government:														
Local	259.58	90.47	259.28	54.27	518.85	106.56	149.28	59.96	337.46	70.15	486.74	87.76	1,005.60	135.02
State	538.22	127.15	149.79	48.44	688.01	136.28	1,389.79	144.96	542.86	87.66	1,932.65	165.47	2,620.66	175.59
Other public	--	--	1.31	1.23	1.31	1.23	20.67	24.80	27.98	24.34	48.65	34.75	49.95	34.77
Total	797.80	154.19	410.37	71.43	1,208.17	170.31	1,559.74	153.30	908.30	104.79	2,468.05	175.88	3,676.22	195.89
Private:														
Corporate	22,585.84	586.81	2,105.41	169.84	24,691.25	594.17	--	--	--	--	--	--	24,691.25	594.17
Noncorporate private:														
Total, noncorporate private	12,172.83	501.01	8,665.31	274.34	20,838.14	531.91	--	--	--	--	--	--	20,838.14	531.91
All private	34,758.67	569.97	10,770.72	297.83	45,529.39	559.55	--	--	--	--	--	--	45,529.39	559.55
All owners	86,086.06	884.96	18,760.57	429.41	104,846.63	857.99	22,331.31	617.97	6,956.17	359.06	29,287.48	628.56	134,134.11	922.93

Note: Totals may be off because of rounding

Timberland and Productive forest land: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D1: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Forest Type and Land Status, 2010-2019: All California

Forest type group	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
<i>thousand metric tons C</i>														
Softwoods:														
California mixed conifer	295,754	8,508	674	350	296,429	8,509	76,392	5,151	305	346	76,697	5,155	373,126	9,753
Douglas-fir	59,003	5,054	--	--	59,003	5,054	20,350	3,439	269	162	20,619	3,443	79,622	5,956
Fir / spruce / mountain hemlock	78,004	5,660	568	440	78,571	5,677	35,277	4,477	1,405	665	36,681	4,522	115,252	7,249
Western Hemlock / Sitka spruce	2,177	1,013	--	--	2,177	1,013	123	122	--	--	123	122	2,300	1,021
Lodgepole pine	7,083	1,255	1,425	526	8,508	1,339	15,867	2,004	4,451	961	20,318	2,132	28,826	2,516
Pinyon / juniper	99	74	3,574	369	3,674	377	20	17	2,394	327	2,413	327	6,087	489
Ponderosa pine	43,345	2,696	465	221	43,809	2,704	6,209	1,227	445	214	6,654	1,241	50,463	2,970
Redwood	59,149	5,928	--	--	59,149	5,928	28,138	8,027	--	--	28,138	8,027	87,287	9,909
Western juniper	2,138	417	5,215	464	7,352	612	1,770	564	237	111	2,006	573	9,359	837
Western white pine	488	278	--	--	488	278	2,075	671	656	300	2,732	732	3,220	783
Other western softwoods	1,366	545	583	206	1,948	582	1,185	468	4,355	805	5,540	915	7,488	1,085
Total	548,605	10,823	12,503	995	561,108	10,821	187,405	10,163	14,517	1,488	201,923	10,163	763,030	14,271
Hardwoods:														
Alder / maple	6,012	1,312	489	258	6,500	1,337	2,521	1,075	16	18	2,537	1,075	9,038	1,715
Aspen / birch	303	221	86	39	389	224	59	36	139	128	198	133	586	261
Elm / ash / cottonwood	--	--	725	365	725	365	--	--	201	158	201	158	926	397
Tanoak / laurel	71,987	5,129	3,742	986	75,729	5,187	20,065	3,300	3,051	1,230	23,115	3,500	98,845	6,188
Western oak	63,036	4,160	86,572	3,191	149,608	4,998	7,444	1,351	13,393	1,528	20,837	2,008	170,445	5,329
Woodland hardwoods	--	--	346	132	346	132	--	--	199	94	199	94	545	163
Exotic hardwoods	3	3	--	--	3	3	--	--	--	--	--	--	3	3
Other hardwoods	9,831	2,027	1,306	291	11,137	2,048	2,432	1,211	237	151	2,669	1,220	13,806	2,370
Total	151,172	6,656	93,266	3,322	244,438	7,119	32,520	3,788	17,235	1,964	49,755	4,187	294,193	8,080
Nonstocked	1,024	216	76	56	1,099	223	460	233	22	16	482	234	1,581	323
All forest types	700,801	10,468	105,844	3,448	806,645	10,400	220,386	9,970	31,773	2,451	252,159	10,038	1,058,805	13,276

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D2: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Forest Type and Land Status, 2010-2019: Central Coast and Interior Ranges

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	1,714	970	--	--	1,714	970	--	--	--	--	--	--	1,714	970
Fir / spruce / mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pinyon / juniper	--	--	203	60	203	60	--	--	17	10	17	10	220	61
Ponderosa pine	--	--	42	30	42	30	--	--	63	53	63	53	106	61
Redwood	13,480	3,233	--	--	13,480	3,233	6,950	2,672	--	--	6,950	2,672	20,430	4,289
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	500	406	--	--	500	406	--	--	--	--	--	--	500	406
Total	15,693	3,353	245	67	15,939	3,353	6,950	2,672	80	54	7,031	2,673	22,969	4,380
Hardwoods:														
Alder / maple	--	--	76	63	76	63	285	342	--	--	285	342	361	347
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	45	37	45	37	--	--	--	--	--	--	45	37
Tanoak / laurel	2,624	1,137	1,422	506	4,046	1,244	3,049	1,670	1,153	517	4,201	1,742	8,248	2,137
Western oak	946	450	14,001	1,360	14,947	1,427	213	166	4,346	801	4,559	802	19,506	1,626
Woodland hardwoods	--	--	--	--	--	--	--	--	8	8	8	8	8	8
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	1,633	1,095	238	119	1,871	1,102	1,576	1,079	17	13	1,593	1,079	3,464	1,523
Total	5,204	1,637	15,782	1,442	20,986	2,168	5,123	1,966	5,523	940	10,646	2,120	31,632	2,969
Nonstocked	14	16	71	56	85	58	--	--	--	--	--	--	85	58
All forest types	20,911	3,739	16,099	1,443	37,010	3,984	12,073	3,236	5,603	941	17,677	3,358	54,686	5,235

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D3: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Forest Type and Land Status, 2010-2019: Central Valley

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hardwoods:														
Alder / maple	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	470	340	470	340	--	--	146	148	146	148	616	371
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western oak	--	--	945	306	945	306	--	--	15	15	15	15	960	306
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	1,415	457	1,415	457	--	--	161	149	161	149	1,576	481
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All forest types	--	--	1,415	457	1,415	457	--	--	161	149	161	149	1,576	481

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D4: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Forest Type and Land Status, 2010-2019: Eastside

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	5,892	914	164	157	6,056	923	--	--	--	--	--	--	6,056	923
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	3,428	991	--	--	3,428	991	2,150	1,067	--	--	2,150	1,067	5,578	1,456
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	381	221	647	379	1,027	434	--	--	--	--	--	--	1,027	434
Pinyon / juniper	20	21	1,799	241	1,819	242	--	--	984	219	984	219	2,803	320
Ponderosa pine	5,893	812	92	66	5,985	814	434	250	--	--	434	250	6,419	841
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	875	224	3,748	377	4,623	424	--	--	33	36	33	36	4,657	426
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	61	64	144	101	205	120	--	--	932	376	932	376	1,136	394
Total	16,550	1,401	6,593	604	23,143	1,499	2,584	1,089	1,949	433	4,533	1,171	27,676	1,894
Hardwoods:														
Alder / maple	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aspen / birch	92	98	65	36	157	105	26	25	--	--	26	25	183	108
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western oak	134	83	76	75	209	112	--	--	--	--	--	--	209	112
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	79	55	1	1	80	55	--	--	--	--	--	--	80	55
Total	305	140	141	83	446	163	26	25	--	--	26	25	472	164
Nonstocked	77	38	3	3	80	38	--	--	--	--	--	--	80	38
All forest types	16,933	1,417	6,737	608	23,669	1,514	2,610	1,093	1,949	433	4,559	1,175	28,228	1,907

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D5: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Forest Type and Land Status, 2010-2019: Klamath Interior Coast Ranges

Forest type group	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
<i>thousand metric tons C</i>														
Softwoods:														
California mixed conifer	108,037	5,655	326	258	108,364	5,663	34,916	3,317	40	50	34,956	3,315	143,320	6,433
Douglas-fir	23,509	3,145	--	--	23,509	3,145	12,469	2,508	269	162	12,738	2,513	36,247	3,908
Fir / spruce / mountain hemlock	6,180	1,665	180	199	6,360	1,672	7,502	1,948	25	37	7,527	1,948	13,887	2,567
Western Hemlock / Sitka spruce	--	--	--	--	--	--	123	122	--	--	123	122	123	122
Lodgepole pine	119	126	--	--	119	126	36	41	62	66	98	78	217	148
Pinyon / juniper	--	--	5	6	5	6	--	--	--	--	--	--	5	6
Ponderosa pine	3,631	856	--	--	3,631	856	1,822	726	138	139	1,960	733	5,592	1,127
Redwood	1,002	858	--	--	1,002	858	6,638	3,896	--	--	6,638	3,896	7,640	3,989
Western juniper	--	--	20	16	20	16	--	--	--	--	--	--	20	16
Western white pine	305	243	--	--	305	243	343	175	27	28	370	176	675	300
Other western softwoods	206	149	248	148	453	209	39	44	22	25	61	51	514	215
Total	142,990	6,354	779	358	143,769	6,359	63,889	5,711	583	234	64,472	5,712	208,241	8,238
Hardwoods:														
Alder / maple	2,403	757	237	192	2,640	781	1,356	776	16	18	1,372	776	4,012	1,101
Aspen / birch	--	--	--	--	--	--	--	--	7	10	7	10	7	10
Elm / ash / cottonwood	--	--	113	86	113	86	--	--	--	--	--	--	113	86
Tanoak / laurel	25,427	3,482	818	413	26,244	3,506	10,613	2,321	496	376	11,109	2,350	37,354	4,165
Western oak	31,353	3,091	29,970	2,127	61,322	3,680	3,633	937	4,511	935	8,144	1,308	69,466	3,880
Woodland hardwoods	--	--	33	31	33	31	--	--	40	31	40	31	73	43
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	3,906	1,232	319	186	4,225	1,246	129	111	124	136	253	175	4,478	1,258
Total	63,088	4,686	31,490	2,169	94,578	5,086	15,732	2,603	5,193	1,016	20,925	2,779	115,503	5,688
Nonstocked	156	61	--	--	156	61	309	210	4	5	313	210	469	219
All forest types	206,234	6,951	32,269	2,195	238,503	7,128	79,930	5,799	5,779	1,044	85,710	5,832	324,212	8,568

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D6: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Forest Type and Land Status, 2010-2019: North Coast

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	33,780	4,041	--	--	33,780	4,041	7,881	2,636	--	--	7,881	2,636	41,661	4,764
Fir / spruce / mountain hemlock	513	324	--	--	513	324	--	--	--	--	--	--	513	324
Western Hemlock / Sitka spruce	2,177	1,013	--	--	2,177	1,013	--	--	--	--	--	--	2,177	1,013
Lodgepole pine	--	--	--	--	--	--	27	28	--	--	27	28	27	28
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwood	44,635	4,986	--	--	44,635	4,986	14,550	6,616	--	--	14,550	6,616	59,185	8,170
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	242	261	--	--	242	261	239	261	25	22	264	262	506	370
Total	81,347	6,139	--	--	81,347	6,139	22,697	7,025	25	22	22,722	7,025	104,069	9,137
Hardwoods:														
Alder / maple	3,081	985	--	--	3,081	985	880	664	--	--	880	664	3,961	1,188
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	40,679	3,730	1,488	739	42,167	3,763	6,403	1,720	1,334	1,050	7,737	2,014	49,904	4,239
Western oak	5,960	1,292	3,623	736	9,583	1,485	--	--	541	312	541	312	10,125	1,517
Woodland hardwoods	--	--	--	--	--	--	--	--	67	73	67	73	67	73
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	2,640	925	56	57	2,696	927	726	555	--	--	726	555	3,422	1,079
Total	52,360	4,085	5,167	1,046	57,527	4,175	8,009	1,864	1,943	1,098	9,952	2,161	67,479	4,668
Nonstocked	39	27	--	--	39	27	--	--	--	--	--	--	39	27
All forest types	133,746	6,630	5,167	1,046	138,913	6,649	30,706	7,021	1,968	1,098	32,674	7,106	171,587	9,415

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D7: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Forest Type and Land Status, 2010-2019: Sierra Cascades

Forest type group	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
<i>thousand metric tons C</i>														
Softwoods:														
California mixed conifer	180,742	6,670	184	178	180,926	6,669	39,980	3,948	265	343	40,245	3,955	221,171	7,649
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	67,559	5,333	388	392	67,946	5,348	25,624	3,888	1,380	664	27,004	3,940	94,951	6,634
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	6,584	1,231	778	367	7,361	1,264	15,804	2,003	4,104	945	19,909	2,124	27,270	2,470
Pinyon / juniper	79	71	925	235	1,004	246	20	17	977	226	997	226	2,001	331
Ponderosa pine	33,519	2,455	330	209	33,850	2,463	3,243	911	123	84	3,366	913	37,216	2,625
Redwood	32	29	--	--	32	29	--	--	--	--	--	--	32	29
Western juniper	990	299	1,338	259	2,328	395	1,770	564	203	105	1,973	572	4,301	695
Western white pine	183	134	--	--	183	134	1,732	648	630	299	2,362	711	2,545	723
Other western softwoods	357	195	192	103	549	219	829	378	3,376	715	4,205	791	4,753	820
Total	290,045	7,283	4,135	698	294,179	7,281	89,002	4,989	11,058	1,409	100,061	5,005	394,240	8,647
Hardwoods:														
Alder / maple	528	435	--	--	528	435	--	--	--	--	--	--	528	435
Aspen / birch	211	198	21	16	232	198	33	27	132	127	165	130	397	237
Elm / ash / cottonwood	--	--	97	93	97	93	--	--	--	--	--	--	97	93
Tanoak / laurel	3,258	1,225	14	9	3,272	1,225	--	--	--	--	--	--	3,272	1,225
Western oak	23,397	2,474	34,098	2,093	57,495	3,119	3,109	921	3,152	821	6,261	1,214	63,756	3,331
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	1,572	736	569	173	2,142	756	--	--	97	65	97	65	2,238	757
Total	28,966	2,880	34,799	2,097	63,765	3,441	3,142	921	3,381	833	6,523	1,223	70,288	3,636
Nonstocked	730	202	2	1	732	202	138	101	17	15	155	102	888	226
All forest types	319,741	7,325	38,936	2,207	358,676	7,430	92,283	4,954	14,457	1,634	106,740	5,001	465,416	8,728

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D8: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Live Trees Including Foliage (>= 1 inch) by Forest Type and Land Status, 2010-2019: South Coast Mountains and Deserts

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	1,083	580	--	--	1,083	580	1,496	679	--	--	1,496	679	2,579	893
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	324	340	--	--	324	340	--	--	--	--	--	--	324	340
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	285	166	285	166	285	166
Pinyon / juniper	--	--	642	186	642	186	--	--	416	122	416	122	1,058	223
Ponderosa pine	301	218	--	--	301	218	709	296	121	128	830	323	1,131	390
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	272	188	108	101	381	209	--	--	--	--	--	--	381	209
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	--	--	--	--	78	76	--	--	78	76	78	76
Total	1,980	716	751	212	2,731	738	2,283	743	821	242	3,105	782	5,835	1,068
Hardwoods:														
Alder / maple	--	--	175	161	175	161	--	--	--	--	--	--	175	161
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	55	56	55	56	55	56
Tanoak / laurel	--	--	--	--	--	--	--	--	68	59	68	59	68	59
Western oak	1,247	487	3,860	721	5,106	878	488	275	828	379	1,316	467	6,422	992
Woodland hardwoods	--	--	313	129	313	129	--	--	83	50	83	50	396	138
Exotic hardwoods	3	3	--	--	3	3	--	--	--	--	--	--	3	3
Other hardwoods	--	--	123	72	123	72	--	--	--	--	--	--	123	72
Total	1,250	487	4,471	749	5,721	901	488	275	1,034	391	1,522	477	7,243	1,017
Nonstocked	7	6			7	6	14	9	--	--	14	9	20	11
All forest types	3,237	829	5,222	780	8,458	1,133	2,785	782	1,855	456	4,640	902	13,098	1,435

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D9: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Forest Type and Forest Land Status, 2010-2019: All California

Forest type group	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	SE
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	26,059	1,487	85	69	26,144	1,488	12,061	1,345	6	7	12,066	1,345	38,211	1,992
Douglas-fir	2,780	385	--	--	2,780	385	1,439	325	14	13	1,453	325	4,233	496
Fir / spruce / mountain hemlock	9,048	906	33	19	9,081	906	6,111	1,033	133	63	6,244	1,035	15,325	1,374
Western Hemlock / Sitka spruce	222	165	--	--	222	165	--	--	--	--	--	--	222	165
Lodgepole pine	785	192	169	112	954	221	1,941	341	470	114	2,411	354	3,365	417
Pinyon / juniper	15	14	290	56	306	58	6	7	242	76	247	77	553	96
Ponderosa pine	1,510	248	109	99	1,620	267	273	112	51	29	324	115	1,943	291
Redwood	2,604	448	--	--	2,604	448	797	290	--	--	797	290	3,401	532
Western juniper	103	45	156	39	259	60	154	62	--	--	154	62	413	86
Western white pine	122	77	--	--	122	77	245	88	89	61	333	107	456	132
Other western softwoods	187	121	148	86	335	149	138	71	477	121	615	139	949	204
Total	43,435	1,763	992	200	44,427	1,771	23,163	1,673	1,481	201	24,644	1,677	69,071	2,412
Hardwoods:														
Alder / maple	669	215	24	20	693	216	199	121	15	14	214	122	907	248
Aspen / birch	12	8	4	4	16	9	41	32	6	7	47	33	63	34
Elm / ash / cottonwood	--	--	19	15	19	15	--	--	13	12	13	12	33	19
Tanoak / laurel	2,643	313	286	115	2,929	329	923	216	509	256	1,432	333	4,362	467
Western oak	5,991	739	5,296	503	11,287	883	1,898	486	1,174	237	3,072	536	14,359	1,031
Woodland hardwoods	--	--	82	38	82	38	--	--	40	26	40	26	123	46
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	1,439	592	95	33	1,534	593	174	89	8	5	181	89	1,715	599
Total	10,754	1,012	5,807	518	16,562	1,125	3,236	550	1,764	349	5,000	643	21,562	1,289
Nonstocked	5,032	1,113	69	24	5,101	1,114	3,117	886	181	90	3,299	890	8,399	1,425
All forest types	59,221	2,225	6,868	554	66,089	2,270	29,517	1,894	3,426	414	32,943	1,921	99,032	2,930

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D10: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Forest Type and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	25	17	--	--	25	17	--	--	--	--	--	--	25	17
Fir / spruce / mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pinyon / juniper	--	--	11	5	11	5	--	--					11	5
Ponderosa pine	--	--	1	1	1	1	--	--	5	4	5	4	6	4
Redwood	364	125	--	--	364	125	96	66	--	--	96	66	460	142
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	148	119	--	--	148	119	--	--	--	--	--	--	148	119
Total	537	173	12	5	549	173	96	66	5	4	101	66	651	185
Hardwoods:														
Alder / maple	--	--	--	--	--	--	2	2	--	--	2	2	2	2
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	48	25	128	82	176	85	54	32	379	245	433	247	609	261
Western oak	16	12	610	107	626	108	11	11	284	153	294	153	921	187
Woodland hardwoods	--	--	--	--	--	--	--	--	29	24	29	24	29	24
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	84	58	5	3	89	58	69	51	3	3	72	51	160	77
Total	148	64	743	135	891	149	135	60	695	289	829	295	1,720	330
Nonstocked			--	--			11	9	--	--	11	9	11	9
All forest types	686	184	755	135	1,440	228	242	89	700	289	942	302	2,382	378

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D11: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Forest Type and Forest Land Status, 2010-2019: Central Valley

Forest type group	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	SE
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hardwoods:														
Alder / maple	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	17	15	17	15	--	--	11	12	11	12	28	19
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western oak	--	--	33	15	33	15	--	--	--	--	--	--	33	15
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	49	22	49	22	--	--	11	12	11	12	61	24
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All forest types	--	--	49	22	49	22	--	--	11	12	11	12	61	24

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D12: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Forest Type and Forest Land Status, 2010-2019: Eastside

Forest type group	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	SE
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	398	95	4	5	403	95	--	--	--	--	--	--	403	95
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	337	118	--	--	337	118	129	62	--	--	129	62	467	133
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	8	6	120	109	128	109	--	--	--	--	--	--	128	109
Pinyon / juniper	--	--	95	24	95	24	--	--	46	14	46	14	141	27
Ponderosa pine	121	44	1	1	122	44	15	11	--	--	15	11	137	45
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	20	11	120	37	140	38	--	--	--	--	--	--	140	38
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	31	25	31	25	--	--	80	38	80	38	112	45
Total	885	149	371	120	1,256	191	145	62	126	40	271	74	1,527	205
Hardwoods:														
Alder / maple	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aspen / birch	5	6	1	1	7	6	29	30	--	--	29	30	36	30
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western oak	12	8	--	--	12	8	--	--	--	--	--	--	12	8
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	18	15	--	--	18	15	--	--	--	--	--	--	18	15
Total	35	18	1	1	36	18	29	30	--	--	29	30	66	34
Nonstocked	305	138	17	16	323	139	--	--	--	--	--	--	323	139
All forest types	1,225	203	390	120	1,615	237	174	69	126	40	300	80	1,915	250

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D13: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Forest Type and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Forest type group	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	SE
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	9,938	974	10	9	9,948	974	5,151	815	--	--	5,151	815	15,098	1,268
Douglas-fir	1,628	335	--	--	1,628	335	1,151	314	14	13	1,165	314	2,793	451
Fir / spruce / mountain hemlock	777	223	16	13	793	223	1,623	522		1	1,623	522	2,416	568
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	1	1	--	--	1	1	6	7	3	4	9	8	10	8
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	303	147	--	--	303	147	49	38	29	25	79	45	382	154
Redwood	38	34	--	--	38	34	135	83	--	--	135	83	173	89
Western juniper	--	--	5	5	5	5	--	--	--	--	--	--	5	5
Western white pine	58	50	--	--	58	50	53	28	4	4	57	28	116	58
Other western softwoods	35	22	54	50	88	54	1	1	--	--	1	1	89	54
Total	12,779	1,048	85	52	12,863	1,048	8,168	965	51	29	8,219	965	21,082	1,416
Hardwoods:														
Alder / maple	286	168	22	20	307	169	93	61	15	14	108	62	416	180
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	2	2	2	2	--	--	--	--	--	--	2	2
Tanoak / laurel	1,270	251	60	62	1,329	254	599	180	113	72	712	194	2,041	318
Western oak	2,559	535	1,383	256	3,942	591	792	346	330	112	1,122	362	5,064	693
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	1,200	586	6	5	1,206	586	102	72			102	72	1,309	591
Total	5,315	844	1,472	264	6,787	881	1,586	400	458	134	2,044	419	8,831	973
Nonstocked	1,894	768	16	12	1,910	768	1,773	616	28	26	1,801	616	3,711	984
All forest types	19,987	1,483	1,574	268	21,561	1,499	11,527	1,169	537	147	12,064	1,174	33,625	1,889

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D14: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Forest Type and Forest Land Status, 2010-2019: North Coast

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	1,126	196	--	--	1,126	196	288	112	--	--	288	112	1,414	225
Fir / spruce / mountain hemlock	38	38	--	--	38	38	--	--	--	--	--	--	38	38
Western Hemlock / Sitka spruce	222	165	--	--	222	165	--	--	--	--	--	--	222	165
Lodgepole pine	--	--	--	--	--	--	8	8	--	--	8	8	8	8
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwood	2,203	432	--	--	2,203	432	565	270	--	--	565	270	2,768	508
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	4	5	--	--	4	5	25	27	2	2	27	27	31	27
Total	3,593	496	--	--	3,593	496	886	291	2	2	889	291	4,482	572
Hardwoods:														
Alder / maple	302	122	--	--	302	121	105	104	--	--	105	104	407	160
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	1,274	190	49	27	1,323	191	271	116	15	12	285	116	1,608	224
Western oak	257	83	85	27	342	87	--	--	4	5	4	5	346	87
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	52	29	3	3	55	29	3	3	--	--	3	3	58	29
Total	1,885	238	137	38	2,023	241	378	156	19	13	397	156	2,420	287
Nonstocked	3	3	--	--	3	3	--	--	--	--	--	--	3	3
All forest types	5,482	536	137	38	5,619	536	1,264	324	21	13	1,286	324	6,905	623

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D15: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Forest Type and Forest Land Status, 2010-2019: Sierra Cascades

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	15,664	1,129	71	69	15,735	1,130	6,758	1,069	6	7	6,764	1,069	22,499	1,541
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	7,859	872	17	14	7,876	872	4,359	890	133	63	4,492	892	12,368	1,246
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	775	192	50	28	825	193	1,928	341	370	99	2,298	349	3,123	399
Pinyon / juniper	15	14	79	39	94	41	6	7	158	75	164	75	258	85
Ponderosa pine	1,086	196	107	99	1,193	219	188	104	16	13	205	105	1,398	242
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	37	20	30	13	67	24	154	62	--	--	154	62	221	66
Western white pine	64	58	--	--	64	58	192	84	85	60	276	103	340	119
Other western softwoods	--	--	63	66	63	66	112	66	394	116	506	132	569	148
Total	25,501	1,343	418	147	25,918	1,348	13,696	1,353	1,162	187	14,858	1,357	40,776	1,891
Hardwoods:														
Alder / maple	82	59	--	--	82	59	--	--	--	--	--	--	82	59
Aspen / birch	6	6	3	4	9	7	12	13	6	7	18	15	27	16
Elm / ash / cottonwood	--	--	1	1	1	1	--	--	--	--	--	--	1	1
Tanoak / laurel	51	26	50	43	101	51	--	--	--	--	--	--	101	51
Western oak	2,860	479	2,679	406	5,538	621	762	297	390	128	1,152	322	6,690	699
Woodland hardwoods	--	--	9	8	9	8	--	--	--	--	--	--	9	8
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	84	47	80	32	164	57	--	--	5	4	5	4	169	57
Total	3,083	486	2,821	409	5,904	628	773	297	400	128	1,174	322	7,078	704
Nonstocked	2,554	773	18	8	2,572	773	1,302	636	150	87	1,451	642	4,023	1,005
All forest types	31,138	1,579	3,256	434	34,394	1,621	15,771	1,479	1,712	241	17,483	1,488	51,877	2,176

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D16: Aboveground Carbon, Dry Weight (Regional Biomass Method) of Dead Trees (>= 5 inch) by Forest Type and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	58	31	--	--	58	31	152	72	--	--	152	72	210	79
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	36	37	--	--	36	37	--	--	--	--	--	--	36	37
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	96	57	96	57	96	57
Pinyon / juniper	--	--	106	37	106	37	--	--	37	11	37	11	143	39
Ponderosa pine		1	--	--		1	20	10	--	--	20	10	20	10
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	47	39	1	1	47	39	--	--	--	--	--	--	47	39
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	141	61	107	37	247	71	172	73	134	58	306	93	553	117
Hardwoods:														
Alder / maple	--	--	2	2	2	2	--	--	--	--	--	--	2	2
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	2	2	2	2	2	2
Tanoak / laurel	--	--	--	--	--	--	--	--	2	2	2	2	2	2
Western oak	288	158	507	119	794	197	334	167	166	71	500	180	1,295	267
Woodland hardwoods	--	--	74	37	74	37	--	--	11	8	11	8	85	38
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	--	--	1	1	1	1	--	--	--	--	--	--	1	1
Total	288	158	584	124	871	200	334	167	181	71	515	180	1,387	270
Nonstocked	275	205	17	12	292	204	32	16	4	3	36	16	328	205
All forest types	703	250	708	129	1,411	279	538	182	319	92	856	202	2,267	344

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D17: Aboveground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: All California

Forest type group	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
<i>thousand metric tons C</i>														
Softwoods:														
California mixed conifer	4,077.0264	131.9041	18.2096	8.2823	4,095.2359	132.0252	798.8427	53.4480	7.1318	6.9947	805.9745	53.6008	4,901.2104	141.0904
Douglas-fir	975.2047	71.6931	--	--	975.2047	71.6931	221.3982	34.6978	32.0298	16.6664	253.4279	38.2687	1,228.6327	79.5566
Fir / spruce / mountain hemlock	1,026.6743	63.8386	25.2372	13.4068	1,051.9115	65.0725	371.6980	40.0722	31.8254	12.3896	403.5234	41.5768	1,455.4349	77.0930
Western Hemlock / Sitka spruce	24.9499	11.8029	--	--	24.9499	11.8029	1.8968	1.8823	--	--	1.8968	1.8823	26.8467	11.9521
Lodgepole pine	216.8872	40.8827	24.8071	8.7339	241.6944	41.6316	223.6619	28.5578	181.2031	36.1750	404.8650	45.0137	646.5594	61.2573
Pinyon / juniper	18.9416	12.9515	1,578.9206	104.5017	1,597.8623	105.2662	11.8818	10.4696	840.0984	85.4181	851.9802	85.7152	2,449.8425	132.2655
Ponderosa pine	1,956.5655	114.3348	76.6059	32.9791	2,033.1714	118.6590	162.6579	28.6090	31.9255	13.9499	194.5835	31.5419	2,227.7549	122.6564
Redwood	624.0100	54.5434	--	--	624.0100	54.5434	113.8269	28.5858	--	--	113.8269	28.5858	737.8370	61.2184
Western juniper	255.0704	49.2552	2,739.4859	205.3938	2,994.5563	209.3465	98.3209	31.5585	71.1959	34.1437	169.5167	45.6255	3,164.0730	213.9335
Western white pine	18.8330	10.5840	--	--	18.8330	10.5840	66.7919	20.6140	36.6202	17.1778	103.4121	26.2049	122.2452	28.2616
Other western softwoods	83.3919	25.9993	153.1906	49.5512	236.5826	55.8154	44.2930	16.2253	452.9297	74.7583	497.2227	76.0373	733.8053	94.3239
Total	9,277.5551	180.0330	4,616.4569	234.9420	13,894.0121	284.8710	2,115.2700	86.6432	1,684.9597	122.3610	3,800.2297	141.0196	17,694.2418	308.1475
Hardwoods:														
Alder / maple	238.9261	43.6086	25.3711	10.7191	264.2972	44.8976	52.7434	21.6665	12.8326	11.4830	65.5761	24.5213	329.8733	51.1349
Aspen / birch	15.5749	9.9862	35.5864	17.1663	51.1613	19.8597	27.6461	16.6289	21.7205	12.7044	49.3666	20.9266	100.5279	28.8501
Elm / ash / cottonwood	--	--	42.3854	16.8018	42.3854	16.8018	1.1090	1.0409	15.0354	9.6308	16.1444	9.6869	58.5298	19.3906
Tanoak / laurel	1,773.5078	110.9013	224.1554	44.1176	1,997.6632	118.1657	454.8008	62.0618	161.1280	38.2914	615.9288	71.2422	2,613.5920	136.1264
Western oak	3,038.4434	157.2417	9,065.2295	219.5654	12,103.6729	251.3782	464.3422	65.2807	1,253.8299	98.2325	1,718.1721	114.9048	13,821.8450	268.7491
Woodland hardwoods	--	--	140.2157	34.3958	140.2157	34.3958	--	--	30.1001	12.4090	30.1001	12.4090	170.3159	36.5615
Exotic hardwoods	3.8035	3.8253	3.4322	3.3874	7.2357	5.1096	--	--	--	--	--	--	7.2357	5.1096
Other hardwoods	469.1734	63.8545	248.9516	46.0978	718.1251	78.5214	92.8321	31.2420	50.3526	21.1348	143.1847	37.5607	861.3098	86.9765
Total	5,539.4290	196.6577	9,785.3275	223.4753	15,324.7565	273.0817	1,093.4736	95.8027	1,544.9992	107.9408	2,638.4728	138.1905	17,963.2293	294.9495
Nonstocked	1,015.6012	91.7649	259.6394	47.9434	1,275.2406	102.9462	356.8936	57.2414	142.9223	37.3496	499.8159	67.8558	1,775.0565	122.7908
All forest types	15,832.5853	225.3147	14,661.4238	318.6470	30,494.0092	344.0270	3,565.6372	122.4332	3,372.8812	163.1860	6,938.5185	184.4971	37,432.5276	363.1986

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D18: Aboveground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Forest type group	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	SE
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	20.4585	11.3077	--	--	20.4585	11.3077	--	--	--	--	--	--	20.4585	11.3077
Fir / spruce / mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pinyon / juniper	--	--	174.9641	40.5961	174.9641	40.5961	--	--	25.5855	14.9561	25.5855	14.9561	200.5495	43.2031
Ponderosa pine	--	--	28.6357	20.4967	28.6357	20.4967	--	--	3.7964	3.1969	3.7964	3.1969	32.4321	20.7445
Redwood	88.8097	20.2858	--	--	88.8097	20.2858	33.8725	12.5344	--	--	33.8725	12.5344	122.6822	24.0795
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	14.2364	10.8011	--	--	14.2364	10.8011	--	--	--	--	--	--	14.2364	10.8011
Total	123.5046	25.3419	203.5998	45.4770	327.1044	52.0596	33.8725	12.5344	29.3819	15.2940	63.2543	19.7741	390.3587	55.7406
Hardwoods:														
Alder / maple	--	--	6.7611	5.5947	6.7611	5.5947	6.0915	7.3112	--	--	6.0915	7.3112	12.8526	9.2062
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	4.0702	2.9402	4.0702	2.9402	--	--	--	--	--	--	4.0702	2.9402
Tanoak / laurel	45.5718	19.2614	77.8382	24.4311	123.4099	31.0763	31.7562	16.8115	69.8498	24.3389	101.6060	29.4302	225.0159	42.6055
Western oak	37.8906	17.9109	1,311.7706	98.9698	1,349.6612	100.4668	21.4176	13.3365	386.0660	53.2024	407.4836	53.2584	1,757.1447	112.7628
Woodland hardwoods	--	--	--	--	--	--	--	--	5.9858	3.8667	5.9858	3.8667	5.9858	3.8667
Exotic hardwoods	--	--	3.4322	3.3874	3.4322	3.3874	--	--	--	--	--	--	3.4322	3.3874
Other hardwoods	25.3189	14.2879	30.7012	15.3231	56.0201	20.9509	23.2045	15.0512	32.0228	17.6423	55.2273	23.1903	111.2474	31.1455
Total	108.7813	29.7997	1,434.5735	102.8019	1,543.3548	106.7443	82.4698	26.0846	493.9243	60.1408	576.3941	62.6339	2,119.7489	121.9852
Nonstocked	6.3151	7.0687	1.5196	1.1952	7.8347	7.1690	15.2435	12.8364	2.4027	2.6059	17.6462	13.0983	25.4810	14.9318
All forest types	238.6010	40.2339	1,639.6929	111.7164	1,878.2939	118.2631	131.5858	31.1623	525.7089	62.2348	657.2946	66.1714	2,535.5885	133.8078

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D19: Aboveground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: Central Valley

Forest type group	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	SE
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hardwoods:														
Alder / maple	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	19.8651	12.9961	19.8651	12.9961	--	--	7.6365	6.8717	7.6365	6.8717	27.5016	14.6962
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western oak	--	--	124.7376	31.3447	124.7376	31.3447	--	--	0.9160	0.8837	0.9160	0.8837	125.6537	31.3572
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	144.6028	33.9307	144.6028	33.9307	--	--	8.5525	6.9283	8.5525	6.9283	153.1553	34.6269
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All forest types	--	--	144.6028	33.9307	144.6028	33.9307	--	--	8.5525	6.9283	8.5525	6.9283	153.1553	34.6269

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D20: Aboveground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: Eastside

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	189.6699	29.6186	4.1073	3.4813	193.7773	29.7144	--	--	--	--	--	--	193.7773	29.7144
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	59.6187	14.8793	--	--	59.6187	14.8793	23.3208	9.8442	--	--	23.3208	9.8442	82.9395	17.8410
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	12.7989	7.8064	8.2407	4.7228	21.0396	9.0264	--	--	--	--	--	--	21.0396	9.0264
Pinyon / juniper	9.2243	9.5341	704.3923	71.1433	713.6165	71.7479	--	--	277.5586	50.8489	277.5586	50.8489	991.1752	85.8971
Ponderosa pine	395.3256	59.8348	4.0429	3.3129	399.3685	59.9242	14.1036	7.7827	--	--	14.1036	7.7827	413.4721	60.3149
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	170.1925	43.7595	2,023.5231	174.7999	2,193.7156	178.1299	--	--	10.1156	10.9076	10.1156	10.9076	2,203.8312	178.4635
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	2.6453	2.7742	12.1653	7.2567	14.8106	7.7689	--	--	49.5060	26.5122	49.5060	26.5122	64.3166	27.6270
Total	839.4751	77.5658	2,756.4716	186.4353	3,595.9468	197.5293	37.4244	12.4759	337.1802	58.4205	374.6046	59.7120	3,970.5514	204.2086
Hardwoods:														
Alder / maple	--	--	--	--	--	--	--	--	0.1084	0.0968	0.1084	0.0968	0.1084	0.0968
Aspen / birch	7.3510	7.8293	30.0225	16.5746	37.3735	18.3308	11.9064	11.4426	0.1872	0.1888	12.0937	11.4442	49.4671	21.6099
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western oak	10.6819	6.9341	19.1937	12.5894	29.8756	15.5284	--	--	--	--	--	--	29.8756	15.5284
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	36.4317	18.2877	6.6865	6.4840	43.1182	19.4032	--	--	--	--	--	--	43.1182	19.4032
Total	54.4645	20.9632	55.9027	21.6880	110.3673	30.6890	11.9064	11.4426	0.2957	0.2121	12.2021	11.4446	122.5694	32.7536
Nonstocked	187.1549	40.5424	94.1948	29.2306	281.3497	49.7438	--	--	7.1860	7.6810	7.1860	7.6810	288.5357	50.3333
All forest types	1,081.0946	88.9920	2,906.5691	189.0819	3,987.6637	203.5877	49.3308	16.9162	344.6619	59.1333	393.9927	61.4787	4,381.6564	210.4827

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D21: Aboveground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Forest type group	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	SE
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	1,300.5139	72.4399	10.7249	6.7702	1,311.2387	72.6973	309.4974	30.0970	5.2031	6.5348	314.7005	30.3082	1,625.9392	78.2357
Douglas-fir	385.9219	46.2803	--	--	385.9219	46.2803	148.0346	28.5121	32.0298	16.6664	180.0644	32.7644	565.9863	55.3258
Fir / spruce / mountain hemlock	101.6347	22.2611	10.0931	7.5782	111.7279	23.3372	94.9706	21.1085	2.3356	3.4822	97.3062	21.3166	209.0340	31.6073
Western Hemlock / Sitka spruce	--	--	--	--	--	--	1.8968	1.8823	--	--	1.8968	1.8823	1.8968	1.8823
Lodgepole pine	11.0969	7.7873	--	--	11.0969	7.7873	7.3370	8.4990	6.5677	6.9769	13.9046	10.9959	25.0016	13.4741
Pinyon / juniper	--	--	3.7255	4.1701	3.7255	4.1701	--	--	--	--	--	--	3.7255	4.1701
Ponderosa pine	139.1056	27.3938	--	--	139.1056	27.3938	23.2360	8.2351	5.4591	4.1571	28.6951	9.0982	167.8007	28.8527
Redwood	9.4210	6.6604	--	--	9.4210	6.6604	22.2745	12.9413	--	--	22.2745	12.9413	31.6955	14.5546
Western juniper	--	--	34.1547	21.7095	34.1547	21.7095	--	--	--	--	--	--	34.1547	21.7095
Western white pine	8.0203	6.0892	--	--	8.0203	6.0892	39.0688	18.2152	12.1700	12.9094	51.2388	21.6428	59.2590	22.4831
Other western softwoods	19.9159	12.8458	68.4054	30.5101	88.3213	33.0229	2.9166	3.3403	7.2774	8.2256	10.1941	8.8779	98.5154	34.1949
Total	1,975.6302	90.2747	127.1037	39.0155	2,102.7339	97.8322	649.2323	49.2934	71.0426	25.4387	720.2750	54.1913	2,823.0088	108.9811
Hardwoods:														
Alder / maple	114.5313	31.0045	11.8680	7.5555	126.3993	31.9118	29.9922	16.1893	12.7242	11.4826	42.7164	19.8479	169.1157	37.5806
Aspen / birch	--	--	--	--	--	--	--	--	3.7219	5.5491	3.7219	5.5491	3.7219	5.5491
Elm / ash / cottonwood	--	--	6.6660	5.0594	6.6660	5.0594	1.1090	1.0409	--	--	1.1090	1.0409	7.7750	5.1653
Tanoak / laurel	570.9983	67.3192	43.4679	19.0473	614.4662	69.6571	276.5624	48.9561	47.6335	21.7169	324.1959	53.0094	938.6621	85.5276
Western oak	1,354.3160	106.2468	2,759.4338	145.7628	4,113.7499	175.5819	211.0589	44.5942	355.5832	55.7183	566.6421	70.4204	4,680.3919	186.0811
Woodland hardwoods	--	--	4.4767	2.5851	4.4767	2.5851	--	--	3.5957	2.7435	3.5957	2.7435	8.0724	3.7696
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	180.0754	40.5442	26.1756	14.0347	206.2510	42.9046	51.6697	24.1499	7.4079	7.5324	59.0775	25.2973	265.3286	49.7952
Total	2,219.9211	132.3729	2,852.0880	147.0348	5,072.0091	192.1690	570.3921	70.7397	430.6664	61.7316	1,001.0585	91.9658	6,073.0676	208.2201
Nonstocked	189.3371	41.5098	22.5288	12.7090	211.8659	43.4118	124.9529	32.6222	20.6968	14.8301	145.6497	35.8349	357.5156	55.8382
All forest types	4,384.8884	150.0563	3,001.7205	152.2229	7,386.6089	204.3243	1,344.5773	81.1867	522.4058	68.0498	1,866.9832	99.4048	9,253.5921	216.0856

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D22: Aboveground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: North Coast

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	568.8243	56.7566	--	--	568.8243	56.7566	73.3636	21.5381	--	--	73.3636	21.5381	642.1878	60.0642
Fir / spruce / mountain hemlock	7.8556	4.9302	--	--	7.8556	4.9302	--	--	--	--	--	--	7.8556	4.9302
Western Hemlock / Sitka spruce	24.9499	11.8029	--	--	24.9499	11.8029	--	--	--	--	--	--	24.9499	11.8029
Lodgepole pine	--	--	--	--	--	--	4.4494	4.5690	1.0472	1.1493	5.4966	4.7113	5.4966	4.7113
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwood	520.9353	50.9404	--	--	520.9353	50.9404	57.6799	22.6701	--	--	57.6799	22.6701	578.6152	55.3213
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	2.2692	1.8683	--	--	2.2692	1.8683	4.6090	3.3483	23.0678	20.0615	27.6767	20.3390	29.9459	20.4247
Total	1,124.8342	71.9878	--	--	1,124.8342	71.9878	140.1019	30.6731	24.1150	20.0944	164.2168	36.7475	1,289.0510	79.4721
Hardwoods:														
Alder / maple	111.5174	29.4572	1.3239	1.3317	112.8412	29.4735	16.6598	12.5284	--	--	16.6598	12.5284	129.5010	32.0257
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	1,071.2332	89.1359	52.2945	21.5263	1,123.5277	90.8328	146.4821	35.2835	29.5587	16.7192	176.0409	39.0254	1,299.5686	98.3516
Western oak	235.1462	45.7888	231.3791	41.3344	466.5253	61.6791	--	--	29.6362	15.3843	29.6362	15.3843	496.1615	63.8819
Woodland hardwoods	--	--	--	--	--	--	--	--	1.4208	1.5410	1.4208	1.5410	1.4208	1.5410
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	83.3994	26.5165	2.0851	2.1320	85.4845	26.6021	17.9580	13.1593	--	--	17.9580	13.1593	103.4424	29.6510
Total	1,501.2962	104.8959	287.0825	46.7581	1,788.3787	113.6402	181.0999	38.3170	60.6157	22.7724	241.7156	44.4060	2,030.0943	121.6145
Nonstocked	24.1673	14.3113	--	--	24.1673	14.3113	--	--	--	--	--	--	24.1673	14.3113
All forest types	2,650.2976	113.5576	287.0825	46.7581	2,937.3801	121.2064	321.2018	44.5589	84.7307	30.3705	405.9324	53.8399	3,343.3126	130.1021

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D23: Aboveground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: Sierra Cascades

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	2,566.1432	112.1641	3.3774	3.2622	2,569.5205	112.1847	467.1066	43.7909	1.9287	2.4944	469.0353	43.8321	3,038.5559	119.5111
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	853.9107	58.3774	15.1441	11.0595	869.0547	59.4338	253.4066	32.8715	29.4898	11.8902	282.8964	34.5624	1,151.9511	68.6099
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	192.9914	39.4158	16.5665	7.4147	209.5578	39.9628	211.8755	26.8782	161.9391	34.8336	373.8146	42.8787	583.3725	58.5545
Pinyon / juniper	9.7174	8.7660	312.5628	53.7141	322.2802	54.4247	11.8818	10.4696	261.4755	47.6783	273.3573	48.2084	595.6375	71.9424
Ponderosa pine	1,416.9341	97.0038	43.9273	25.6228	1,460.8614	99.9454	95.5004	22.7122	20.4202	12.7040	115.9206	25.8628	1,576.7821	103.1873
Redwood	4.8440	4.3698	--	--	4.8440	4.3698	--	--	--	--	--	--	4.8440	4.3698
Western juniper	73.4624	21.3252	675.6580	110.8014	749.1204	112.8119	98.3209	31.5585	61.0803	32.3546	159.4012	44.3025	908.5216	121.1123
Western white pine	10.8128	8.6569	--	--	10.8128	8.6569	27.7231	9.6512	24.4503	11.3324	52.1734	14.7746	62.9861	17.1239
Other western softwoods	44.3252	19.5729	72.6199	38.3674	116.9451	42.9487	30.9096	14.4378	367.1190	66.3073	398.0286	67.3459	514.9737	79.8753
Total	5,173.1411	145.5166	1,139.8560	131.7751	6,312.9971	191.0213	1,196.7245	65.2366	927.9029	92.7955	2,124.6274	105.6019	8,437.6245	215.4341
Hardwoods:														
Alder / maple	12.8774	8.9791	--	--	12.8774	8.9791	--	--	--	--	--	--	12.8774	8.9791
Aspen / birch	8.2239	6.1990	5.5639	4.4681	13.7878	7.6414	15.7396	12.0659	17.8114	11.4268	33.5510	16.6180	47.3388	18.2907
Elm / ash / cottonwood	--	--	11.6503	8.8966	11.6503	8.8966	--	--	--	--	--	--	11.6503	8.8966
Tanoak / laurel	85.7045	27.0825	50.5549	23.0986	136.2594	35.5951	--	--	--	--	--	--	136.2594	35.5951
Western oak	1,314.9453	106.5571	4,111.7284	169.7280	5,426.6737	192.7242	162.4199	38.1898	342.9589	55.5589	505.3788	67.3636	5,932.0524	200.9845
Woodland hardwoods	--	--	23.9648	15.0356	23.9648	15.0356	--	--	--	--	--	--	23.9648	15.0356
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	143.9481	35.0782	156.4931	38.2082	300.4412	51.7930	--	--	10.9219	8.8709	10.9219	8.8709	311.3631	52.5335
Total	1,565.6992	115.0932	4,359.9553	173.0202	5,925.6545	199.7227	178.1595	39.9275	371.6922	57.4113	549.8517	69.8775	6,475.5062	208.1438
Nonstocked	565.2738	67.9064	91.3329	29.3558	656.6067	73.5987	176.6477	41.0644	74.4993	27.7219	251.1470	48.8816	907.7537	88.2981
All forest types	7,304.1141	175.8004	5,591.1442	216.3429	12,895.2582	261.6221	1,551.5317	80.4847	1,374.0944	110.6757	2,925.6261	126.3254	15,820.8843	283.7952

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D24: Aboveground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	20.6994	10.2809	--	--	20.6994	10.2809	22.2387	9.8550	--	--	22.2387	9.8550	42.9381	14.2414
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	3.6547	3.8377	--	--	3.6547	3.8377	--	--	--	--	--	--	3.6547	3.8377
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	11.6491	6.7271	11.6491	6.7271	11.6491	6.7271
Pinyon / juniper	--	--	383.2759	54.6369	383.2759	54.6369	--	--	275.4788	51.6509	275.4788	51.6509	658.7547	75.0615
Ponderosa pine	5.2002	3.7826	--	--	5.2002	3.7826	29.8179	13.4670	2.2498	2.3892	32.0677	13.6773	37.2680	14.1907
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	11.4155	7.8528	6.1500	5.7700	17.5655	9.5250	--	--	--	--	--	--	17.5655	9.5250
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	--	--	--	--	5.8578	5.6957	5.9594	5.9683	11.8172	8.2499	11.8172	8.2499
Total	40.9699	13.6758	389.4259	54.9408	430.3958	56.5034	57.9144	17.4926	295.3372	52.2972	353.2516	55.1452	783.6473	78.8225
Hardwoods:														
Alder / maple	--	--	5.4182	4.9739	5.4182	4.9739	--	--	--	--	--	--	5.4182	4.9739
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	0.1337	0.1228	0.1337	0.1228	--	--	7.3989	6.7477	7.3989	6.7477	7.5327	6.7488
Tanoak / laurel	--	--	--	--	--	--	--	--	14.0860	12.2503	14.0860	12.2503	14.0860	12.2503
Western oak	85.4633	27.2096	506.9864	63.2285	592.4497	68.5654	69.4458	26.0140	138.6697	34.8436	208.1155	42.2959	800.5652	80.3942
Woodland hardwoods	--	--	111.7742	30.8486	111.7742	30.8486	--	--	19.0978	11.3635	19.0978	11.3635	130.8720	32.8702
Exotic hardwoods	3.8035	3.8253	--	--	3.8035	3.8253	--	--	--	--	--	--	3.8035	3.8253
Other hardwoods	--	--	26.8101	15.1162	26.8101	15.1162	--	--	--	--	--	--	26.8101	15.1162
Total	89.2668	27.4771	651.1226	71.3928	740.3894	76.1998	69.4458	26.0140	179.2525	39.0933	248.6983	45.8601	989.0877	88.6732
Nonstocked	43.3530	21.1613	50.0634	21.4136	93.4163	29.7826	40.0495	19.0083	38.1375	18.5515	78.1870	26.5608	171.6033	39.8846
All forest types	173.5896	35.6170	1,090.6119	90.5131	1,264.2015	94.9499	167.4098	36.0544	512.7271	67.3372	680.1369	74.6858	1,944.3384	120.0227

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D25: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: All California

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	453.0029	14.6560	2.0233	0.9203	455.0262	14.6695	88.7603	5.9387	0.7924	0.7772	89.5527	5.9556	544.5788	15.6767
Douglas-fir	108.3561	7.9659	--	--	108.3561	7.9659	24.5998	3.8553	3.5589	1.8518	28.1587	4.2521	136.5148	8.8396
Fir / spruce / mountain hemlock	114.0749	7.0932	2.8041	1.4896	116.8790	7.2303	41.2998	4.4525	3.5361	1.3766	44.8359	4.6196	161.7150	8.5659
Western Hemlock / Sitka spruce	2.7722	1.3114	--	--	2.7722	1.3114	0.2108	0.2091	--	--	0.2108	0.2091	2.9830	1.3280
Lodgepole pine	24.0986	4.5425	2.7563	0.9704	26.8549	4.6257	24.8513	3.1731	20.1337	4.0194	44.9850	5.0015	71.8399	6.8064
Pinyon / juniper	2.1046	1.4391	175.4353	11.6113	177.5400	11.6962	1.3202	1.1633	93.3441	9.4909	94.6643	9.5239	272.2043	14.6961
Ponderosa pine	217.3961	12.7039	8.5118	3.6643	225.9079	13.1843	18.0731	3.1788	3.5473	1.5500	21.6204	3.5047	247.5283	13.6285
Redwood	69.3345	6.0604	--	--	69.3345	6.0604	12.6474	3.1762	--	--	12.6474	3.1762	81.9819	6.8020
Western white pine	2.0926	1.1760	--	--	2.0926	1.1760	7.4213	2.2904	4.0689	1.9086	11.4902	2.9117	13.5828	3.1402
Other western softwoods	37.6069	6.1785	321.4085	23.4412	359.0154	24.0231	15.8460	3.8936	58.2362	9.0920	74.0822	9.7327	433.0976	25.8048
Total	1,030.8394	20.0037	512.9393	26.1047	1,543.7787	31.6523	235.0299	9.6270	187.2176	13.5957	422.2475	15.6688	1,966.0262	34.2386
Hardwoods:														
Alder / maple	26.5473	4.8454	2.8190	1.1910	29.3664	4.9886	5.8604	2.4074	1.4258	1.2759	7.2862	2.7246	36.6526	5.6817
Aspen / birch	1.7305	1.1096	3.9540	1.9074	5.6846	2.2066	3.0718	1.8477	2.4134	1.4116	5.4852	2.3252	11.1698	3.2056
Elm / ash / cottonwood	--	--	4.7095	1.8669	4.7095	1.8669	0.1232	0.1157	1.6706	1.0701	1.7938	1.0763	6.5033	2.1545
Tanoak / laurel	197.0564	12.3224	24.9061	4.9020	221.9626	13.1295	50.5334	6.8958	17.9031	4.2546	68.4365	7.9158	290.3991	15.1252
Western oak	337.6048	17.4713	1,007.2475	24.3961	1,344.8523	27.9309	51.5936	7.2534	139.3145	10.9147	190.9080	12.7672	1,535.7603	29.8610
Woodland hardwoods	--	--	15.5795	3.8218	15.5795	3.8218	--	--	3.3445	1.3788	3.3445	1.3788	18.9240	4.0624
Exotic hardwoods	0.4226	0.4250	0.3814	0.3764	0.8040	0.5677	--	--	--	--	--	--	0.8040	0.5677
Other hardwoods	52.1304	7.0950	27.6613	5.1220	79.7917	8.7246	10.3147	3.4713	5.5947	2.3483	15.9094	4.1734	95.7011	9.6640
Total	615.4921	21.8509	1,087.2584	24.8306	1,702.7505	30.3424	121.4970	10.6447	171.6666	11.9934	293.1636	15.3545	1,995.9141	32.7722
Nonstocked	112.8444	10.1961	28.8488	5.3270	141.6932	11.4384	39.6548	6.3601	15.8802	4.1499	55.5350	7.5395	197.2282	13.6434
All forest types	1,759.1758	25.0350	1,629.0465	35.4052	3,388.2223	38.2252	396.1818	13.6037	374.7644	18.1318	770.9462	20.4997	4,159.1685	40.3554

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D26: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	2.2732	1.2564	--	--	2.2732	1.2564	--	--	--	--	--	--	2.2732	1.2564
Fir / spruce / mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pinyon / juniper	--	--	19.4404	4.5107	19.4404	4.5107	--	--	2.8428	1.6618	2.8428	1.6618	22.2832	4.8003
Ponderosa pine	--	--	3.1817	2.2774	3.1817	2.2774	--	--	0.4218	0.3552	0.4218	0.3552	3.6036	2.3049
Redwood	9.8678	2.2540	--	--	9.8678	2.2540	3.7636	1.3927	--	--	3.7636	1.3927	13.6314	2.6755
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	1.5818	1.2001	--	--	1.5818	1.2001	--	--	--	--	--	--	1.5818	1.2001
Total	13.7227	2.8158	22.6222	5.0530	36.3449	5.7844	3.7636	1.3927	3.2646	1.6993	7.0283	2.1971	43.3732	6.1934
Hardwoods:														
Alder / maple	--	--	0.7512	0.6216	0.7512	0.6216	0.6768	0.8124	--	--	0.6768	0.8124	1.4281	1.0229
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	0.4522	0.3267	0.4522	0.3267	--	--	--	--	--	--	0.4522	0.3267
Tanoak / laurel	5.0635	2.1402	8.6487	2.7146	13.7122	3.4529	3.5285	1.8679	7.7611	2.7043	11.2896	3.2700	25.0018	4.7339
Western oak	4.2101	1.9901	145.7523	10.9966	149.9623	11.1630	2.3797	1.4818	42.8962	5.9114	45.2760	5.9176	195.2383	12.5292
Woodland hardwoods	--	--	--	--	--	--	--	--	0.6651	0.4296	0.6651	0.4296	0.6651	0.4296
Exotic hardwoods	--	--	0.3814	0.3764	0.3814	0.3764	--	--	--	--	--	--	0.3814	0.3764
Other hardwoods	2.8132	1.5875	3.4112	1.7026	6.2244	2.3279	2.5783	1.6724	3.5581	1.9603	6.1364	2.5767	12.3608	3.4606
Total	12.0868	3.3111	159.3970	11.4224	171.4838	11.8605	9.1633	2.8983	54.8805	6.6823	64.0438	6.9593	235.5276	13.5539
Nonstocked	0.7017	0.7854	0.1688	0.1328	0.8705	0.7966	1.6937	1.4263	0.2670	0.2895	1.9607	1.4554	2.8312	1.6591
All forest types	26.5112	4.4704	182.1880	12.4129	208.6993	13.1403	14.6206	3.4625	58.4121	6.9150	73.0327	7.3524	281.7320	14.8675

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D27: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: Central Valley

Forest type group	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	SE
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hardwoods:														
Alder / maple	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	2.2072	1.4440	2.2072	1.4440	--	--	0.8485	0.7635	0.8485	0.7635	3.0557	1.6329
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western oak	--	--	13.8597	3.4827	13.8597	3.4827	--	--	0.1018	0.0982	0.1018	0.0982	13.9615	3.4841
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	16.0670	3.7701	16.0670	3.7701	--	--	0.9503	0.7698	0.9503	0.7698	17.0172	3.8474
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All forest types	--	--	16.0670	3.7701	16.0670	3.7701	--	--	0.9503	0.7698	0.9503	0.7698	17.0172	3.8474

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D28: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: Eastside

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	21.0744	3.2910	0.4564	0.3868	21.5308	3.3016	--	--	--	--	--	--	21.5308	3.3016
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	6.6243	1.6532	--	--	6.6243	1.6532	2.5912	1.0938	--	--	2.5912	1.0938	9.2155	1.9823
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	1.4221	0.8674	0.9156	0.5248	2.3377	1.0029	--	--	--	--	--	--	2.3377	1.0029
Pinyon / juniper	1.0249	1.0593	78.2657	7.9048	79.2906	7.9720	--	--	30.8398	5.6499	30.8398	5.6499	110.1304	9.5441
Ponderosa pine	43.9251	6.6483	0.4492	0.3681	44.3743	6.6582	1.5671	0.8647	--	--	1.5671	0.8647	45.9413	6.7017
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	19.2042	4.8647	226.1876	19.4350	245.3918	19.7956	--	--	6.6246	3.1854	6.6246	3.1854	252.0164	20.0491
Total	93.2750	8.6184	306.2745	20.7150	399.5494	21.9477	4.1583	1.3862	37.4644	6.4912	41.6227	6.6347	441.1721	22.6898
Hardwoods:														
Alder / maple	--	--	--	--	--	--	--	--	0.0120	0.0108	0.0120	0.0108	0.0120	0.0108
Aspen / birch	0.8168	0.8699	3.3358	1.8416	4.1526	2.0368	1.3229	1.2714	0.0208	0.0210	1.3437	1.2716	5.4963	2.4011
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western oak	1.1869	0.7705	2.1326	1.3988	3.3195	1.7254	--	--	--	--	--	--	3.3195	1.7254
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	4.0480	2.0320	0.7429	0.7204	4.7909	2.1559	--	--	--	--	--	--	4.7909	2.1559
Total	6.0516	2.3292	6.2114	2.4098	12.2630	3.4099	1.3229	1.2714	0.0329	0.0236	1.3558	1.2716	13.6188	3.6393
Nonstocked	20.7950	4.5047	10.4661	3.2478	31.2610	5.5271	--	--	0.7984	0.8534	0.7984	0.8534	32.0595	5.5926
All forest types	120.1216	9.8880	322.9519	21.0091	443.0735	22.6208	5.4812	1.8796	38.2957	6.5704	43.7769	6.8310	486.8504	23.3870

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D29: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	144.5016	8.0489	1.1916	0.7522	145.6932	8.0775	34.3886	3.3441	0.5781	0.7261	34.9667	3.3676	180.6599	8.6929
Douglas-fir	42.8802	5.1423	--	--	42.8802	5.1423	16.4483	3.1680	3.5589	1.8518	20.0072	3.6405	62.8874	6.1473
Fir / spruce / mountain hemlock	11.2927	2.4734	1.1215	0.8420	12.4142	2.5930	10.5523	2.3454	0.2595	0.3869	10.8118	2.3685	23.2260	3.5119
Western Hemlock / Sitka spruce	--	--	--	--	--	--	0.2108	0.2091	--	--	0.2108	0.2091	0.2108	0.2091
Lodgepole pine	1.2330	0.8653	--	--	1.2330	0.8653	0.8152	0.9443	0.7297	0.7752	1.5450	1.2218	2.7779	1.4971
Pinyon / juniper	--	--	0.4139	0.4633	0.4139	0.4633	--	--	--	--	--	--	0.4139	0.4633
Ponderosa pine	15.4562	3.0438	--	--	15.4562	3.0438	2.5818	0.9150	0.6066	0.4619	3.1883	1.0109	18.6445	3.2059
Redwood	1.0468	0.7400	--	--	1.0468	0.7400	2.4750	1.4379	--	--	2.4750	1.4379	3.5217	1.6172
Western white pine	0.8911	0.6766	--	--	0.8911	0.6766	4.3410	2.0239	1.3522	1.4344	5.6932	2.4048	6.5843	2.4981
Other western softwoods	2.2129	1.4273	11.3956	4.1606	13.6084	4.3911	0.3241	0.3711	0.8086	0.9140	1.1327	0.9864	14.7411	4.5005
Total	219.5145	10.0305	14.1226	4.3350	233.6371	10.8702	72.1369	5.4770	7.8936	2.8265	80.0305	6.0213	313.6676	12.1090
Hardwoods:														
Alder / maple	12.7257	3.4449	1.3187	0.8395	14.0444	3.5458	3.3325	1.7988	1.4138	1.2758	4.7463	2.2053	18.7906	4.1756
Aspen / birch	--	--	--	--	--	--	--	--	0.4135	0.6166	0.4135	0.6166	0.4135	0.6166
Elm / ash / cottonwood	--	--	0.7407	0.5622	0.7407	0.5622	0.1232	0.1157	--	--	0.1232	0.1157	0.8639	0.5739
Tanoak / laurel	63.4443	7.4799	4.8298	2.1164	68.2740	7.7397	30.7291	5.4396	5.2926	2.4130	36.0218	5.8899	104.2958	9.5031
Western oak	150.4796	11.8052	306.6038	16.1959	457.0833	19.5091	23.4510	4.9549	39.5092	6.1909	62.9602	7.8245	520.0435	20.6757
Woodland hardwoods	--	--	0.4974	0.2872	0.4974	0.2872	--	--	0.3995	0.3048	0.3995	0.3048	0.8969	0.4188
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	20.0084	4.5049	2.9084	1.5594	22.9168	4.7672	5.7411	2.6833	0.8231	0.8369	6.5642	2.8108	29.4809	5.5328
Total	246.6579	14.7081	316.8987	16.3372	563.5566	21.3521	63.3769	7.8600	47.8518	6.8591	111.2287	10.2184	674.7853	23.1356
Nonstocked	21.0374	4.6122	2.5032	1.4121	23.5406	4.8235	13.8836	3.6247	2.2996	1.6478	16.1833	3.9817	39.7239	6.2042
All forest types	487.2098	16.6729	333.5245	16.9137	820.7342	22.7027	149.3974	9.0207	58.0451	7.5611	207.4425	11.0450	1,028.1768	24.0095

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D30: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: North Coast

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	63.2027	6.3063	--	--	63.2027	6.3063	8.1515	2.3931	--	--	8.1515	2.3931	71.3542	6.6738
Fir / spruce / mountain hemlock	0.8728	0.5478	--	--	0.8728	0.5478	--	--	--	--	--	--	0.8728	0.5478
Western Hemlock / Sitka spruce	2.7722	1.3114	--	--	2.7722	1.3114	--	--	--	--	--	--	2.7722	1.3114
Lodgepole pine	--	--	--	--	--	--	0.4944	0.5077	0.1164	0.1277	0.6107	0.5235	0.6107	0.5235
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwood	57.8817	5.6600	--	--	57.8817	5.6600	6.4089	2.5189	--	--	6.4089	2.5189	64.2906	6.1468
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	0.2521	0.2076	--	--	0.2521	0.2076	0.5121	0.3720	2.5631	2.2291	3.0752	2.2599	3.3273	2.2694
Total	124.9816	7.9986	--	--	124.9816	7.9986	15.5669	3.4081	2.6794	2.2327	18.2463	4.0831	143.2279	8.8302
Hardwoods:														
Alder / maple	12.3908	3.2730	0.1471	0.1480	12.5379	3.2748	1.8511	1.3920	--	--	1.8511	1.3920	14.3890	3.5584
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	119.0259	9.9040	5.8105	2.3918	124.8364	10.0925	16.2758	3.9204	3.2843	1.8577	19.5601	4.3362	144.3965	10.9280
Western oak	26.1273	5.0876	25.7088	4.5927	51.8361	6.8532	--	--	3.2929	1.7094	3.2929	1.7094	55.1290	7.0980
Woodland hardwoods	--	--	--	--	--	--	--	--	0.1579	0.1712	0.1579	0.1712	0.1579	0.1712
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	9.2666	2.9463	0.2317	0.2369	9.4983	2.9558	1.9953	1.4621	--	--	1.9953	1.4621	11.4936	3.2946
Total	166.8107	11.6551	31.8980	5.1953	198.7087	12.6267	20.1222	4.2574	6.7351	2.5303	26.8573	4.9340	225.5660	13.5127
Nonstocked	2.6852	1.5901	--	--	2.6852	1.5901	--	--	--	--	--	--	2.6852	1.5901
All forest types	294.4775	12.6175	31.8980	5.1953	326.3756	13.4674	35.6891	4.9510	9.4145	3.3745	45.1036	5.9822	371.4792	14.4558

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D31: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: Sierra Cascades

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	285.1269	12.4627	0.3753	0.3625	285.5022	12.4650	51.9007	4.8657	0.2143	0.2772	52.1150	4.8702	337.6172	13.2790
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	94.8790	6.4864	1.6827	1.2288	96.5616	6.6038	28.1563	3.6524	3.2766	1.3211	31.4329	3.8403	127.9946	7.6233
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	21.4435	4.3795	1.8407	0.8239	23.2842	4.4403	23.5417	2.9865	17.9932	3.8704	41.5349	4.7643	64.8191	6.5061
Pinyon / juniper	1.0797	0.9740	34.7291	5.9682	35.8089	6.0472	1.3202	1.1633	29.0528	5.2976	30.3730	5.3565	66.1818	7.9936
Ponderosa pine	157.4371	10.7782	4.8808	2.8470	162.3179	11.1050	10.6112	2.5236	2.2689	1.4116	12.8801	2.8736	175.1980	11.4653
Redwood	0.5382	0.4855	--	--	0.5382	0.4855	--	--	--	--	--	--	0.5382	0.4855
Western white pine	1.2014	0.9619	--	--	1.2014	0.9619	3.0803	1.0724	2.7167	1.2592	5.7970	1.6416	6.9985	1.9027
Other western softwoods	13.0875	3.2162	83.1420	13.0220	96.2295	13.4055	14.3589	3.8078	47.5777	8.1536	61.9366	8.8262	158.1662	16.0348
Total	574.7934	16.1685	126.6506	14.6417	701.4440	21.2246	132.9693	7.2485	103.1003	10.3106	236.0696	11.7335	937.5136	23.9371
Hardwoods:														
Alder / maple	1.4308	0.9977	--	--	1.4308	0.9977	--	--	--	--	--	--	1.4308	0.9977
Aspen / birch	0.9138	0.6888	0.6182	0.4965	1.5320	0.8490	1.7488	1.3407	1.9790	1.2696	3.7279	1.8464	5.2599	2.0323
Elm / ash / cottonwood	--	--	1.2945	0.9885	1.2945	0.9885	--	--	--	--	--	--	1.2945	0.9885
Tanoak / laurel	9.5227	3.0092	5.6172	2.5665	15.1399	3.9550	--	--	--	--	--	--	15.1399	3.9550
Western oak	146.1050	11.8397	456.8586	18.8587	602.9636	21.4138	18.0467	4.2433	38.1065	6.1732	56.1532	7.4848	659.1168	22.3316
Woodland hardwoods	--	--	2.6627	1.6706	2.6627	1.6706	--	--	--	--	--	--	2.6627	1.6706
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	15.9942	3.8976	17.3881	4.2454	33.3823	5.7548	--	--	1.2135	0.9857	1.2135	0.9857	34.5959	5.8371
Total	173.9665	12.7881	484.4393	19.2245	658.4059	22.1914	19.7955	4.4364	41.2991	6.3790	61.0946	7.7642	719.5005	23.1271
Nonstocked	62.8081	7.5451	10.1481	3.2618	72.9562	8.1776	19.6275	4.5627	8.2777	3.0802	27.9052	5.4313	100.8613	9.8109
All forest types	811.5680	19.5334	621.2380	24.0381	1,432.8060	29.0691	172.3923	8.9427	152.6771	12.2973	325.0694	14.0361	1,757.8754	31.5328

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D32: Belowground Carbon, Dry Weight of Live Understory Vegetation, by Forest Type and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Forest type group	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	SE
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	2.2999	1.1423	--	--	2.2999	1.1423	2.4710	1.0950	--	--	2.4710	1.0950	4.7709	1.5824
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	0.4061	0.4264	--	--	0.4061	0.4264	--	--	--	--	--	--	0.4061	0.4264
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	1.2943	0.7475	1.2943	0.7475	1.2943	0.7475
Pinyon / juniper	--	--	42.5861	6.0708	42.5861	6.0708	--	--	30.6087	5.7390	30.6087	5.7390	73.1948	8.3402
Ponderosa pine	0.5778	0.4203	--	--	0.5778	0.4203	3.3131	1.4963	0.2500	0.2655	3.5631	1.5197	4.1409	1.5767
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	1.2684	0.8725	0.6833	0.6411	1.9517	1.0583	0.6509	0.6329	0.6622	0.6631	1.3130	0.9167	3.2648	1.4001
Total	4.5522	1.5195	43.2695	6.1045	47.8217	6.2782	6.4349	1.9436	32.8152	5.8108	39.2501	6.1272	87.0718	8.7580
Hardwoods:														
Alder / maple	--	--	0.6020	0.5527	0.6020	0.5527	--	--	--	--	--	--	0.6020	0.5527
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	0.0149	0.0136	0.0149	0.0136	--	--	0.8221	0.7497	0.8221	0.7497	0.8370	0.7499
Tanoak / laurel	--	--	--	--	--	--	--	--	1.5651	1.3611	1.5651	1.3611	1.5651	1.3611
Western oak	9.4959	3.0233	56.3318	7.0254	65.8277	7.6184	7.7162	2.8904	15.4077	3.8715	23.1239	4.6995	88.9517	8.9327
Woodland hardwoods	--	--	12.4193	3.4276	12.4193	3.4276	--	--	2.1220	1.2626	2.1220	1.2626	14.5413	3.6522
Exotic hardwoods	0.4226	0.4250	--	--	0.4226	0.4250	--	--	--	--	--	--	0.4226	0.4250
Other hardwoods	--	--	2.9789	1.6796	2.9789	1.6796	--	--	--	--	--	--	2.9789	1.6796
Total	9.9185	3.0530	72.3469	7.9325	82.2655	8.4666	7.7162	2.8904	19.9169	4.3437	27.6331	5.0956	109.8986	9.8526
Nonstocked	4.8170	2.3513	5.5626	2.3793	10.3796	3.3092	4.4499	2.1120	4.2375	2.0613	8.6874	2.9512	19.0670	4.4316
All forest types	19.2877	3.9574	121.1790	10.0570	140.4667	10.5500	18.6011	4.0060	56.9696	7.4819	75.5707	8.2984	216.0374	13.3358

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D33: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) by Forest Type and Forest Land Status, 2010-2019: All California

Forest type group	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
<i>thousand metric tons C</i>														
Softwoods:														
California mixed conifer	56,419	1,650	136	71	56,555	1,651	14,178	943	52	58	14,230	944	70,785	1,863
Douglas-fir	12,119	1,040	--	--	12,119	1,040	4,218	717	47	29	4,265	718	16,384	1,230
Fir / spruce / mountain hemlock	13,146	966	100	81	13,246	970	5,883	751	249	119	6,132	760	19,378	1,230
Western Hemlock / Sitka spruce	477	222	--	--	477	222	25	24	--	--	25	24	502	223
Lodgepole pine	1,397	249	281	105	1,678	266	3,303	413	933	203	4,236	441	5,914	515
Pinyon / juniper	21	16	744	75	765	77	5	4	503	68	507	68	1,273	100
Ponderosa pine	9,235	583	101	50	9,336	585	1,341	263	96	46	1,437	266	10,773	642
Redwood	11,030	1,091	--	--	11,030	1,091	5,001	1,433	--	--	5,001	1,433	16,032	1,788
Western juniper	406	79	883	82	1,288	112	299	94	39	20	338	96	1,626	147
Western white pine	93	53	--	--	93	53	396	130	126	57	522	141	615	151
Other western softwoods	273	120	98	35	371	124	248	106	912	178	1,160	204	1,532	239
Total	104,617	2,077	2,343	192	106,960	2,078	34,896	1,848	2,958	306	37,854	1,851	144,814	2,668
Hardwoods:														
Alder / maple	1,152	250	87	46	1,240	254	490	208	3	4	493	209	1,733	329
Aspen / birch	57	41	14	7	71	41	10	6	25	24	35	24	106	48
Elm / ash / cottonwood	--	--	126	67	126	67	--	--	37	29	37	29	163	73
Tanoak / laurel	13,850	997	725	187	14,575	1,007	3,862	640	580	240	4,442	679	19,017	1,202
Western oak	12,670	837	16,992	634	29,662	1,002	1,491	271	2,588	296	4,080	395	33,742	1,065
Woodland hardwoods	--	--	51	20	51	20	--	--	38	19	38	19	89	28
Exotic hardwoods	1	1	--	--	1	1	--	--	--	--	--	--	1	1
Other hardwoods	2,016	415	250	56	2,266	419	477	242	39	25	516	243	2,783	482
Total	29,746	1,314	18,246	657	47,992	1,406	6,331	740	3,310	382	9,641	818	57,633	1,591
Nonstocked	203	45	15	11	218	46	79	38	4	3	83	38	301	60
All forest types	134,567	2,010	20,603	682	155,170	1,998	41,306	1,818	6,272	486	47,578	1,835	202,748	2,474

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D34: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) by Forest Type and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	362	209	--	--	362	209	--	--	--	--	--	--	362	209
Fir / spruce / mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pinyon / juniper	--	--	39	11	39	11	--	--	4	2	4	2	43	11
Ponderosa pine	--	--	8	6	8	6	--	--	13	11	13	11	22	13
Redwood	2,445	586	--	--	2,445	586	1,223	471	--	--	1,223	471	3,668	769
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	116	94	--	--	116	94	--	--	--	--	--	--	116	94
Total	2,922	619	47	13	2,969	619	1,223	471	17	12	1,240	471	4,209	794
Hardwoods:														
Alder / maple	--	--	14	12	14	12	60	72	--	--	60	72	75	73
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	7	6	7	6	--	--	--	--	--	--	7	6
Tanoak / laurel	502	217	285	99	787	239	598	327	209	92	807	339	1,594	414
Western oak	185	88	2,533	243	2,718	257	41	33	788	144	829	145	3,547	293
Woodland hardwoods	--	--	--	--	--	--	--	--	1	1	1	1	1	1
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	310	203	37	18	346	204	317	217	2	2	320	217	666	294
Total	997	309	2,876	260	3,873	402	1,016	389	1,001	170	2,017	413	5,890	564
Nonstocked	3	3	14	11	17	11	--	--	--	--	--	--	17	11
All forest types	3,922	693	2,937	261	6,859	736	2,239	594	1,018	170	3,257	615	10,116	963

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D35: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) by Forest Type and Forest Land Status, 2010-2019: Central Valley

Forest type group	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	SE
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hardwoods:														
Alder / maple	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	88	64	88	64	--	--	27	27	27	27	115	69
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western oak	--	--	186	59	186	59	--	--	3	3	3	3	188	59
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	274	87	274	87	--	--	30	27	30	27	303	91
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All forest types	--	--	274	87	274	87	--	--	30	27	30	27	303	91

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D36: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) by Forest Type and Forest Land Status, 2010-2019: Eastside

Forest type group	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	SE
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	1,097	171	34	33	1,132	173	--	--	--	--	--	--	1,132	173
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	555	161	--	--	555	161	338	169	--	--	338	169	893	234
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	84	49	128	77	212	90	--	--	--	--	--	--	212	90
Pinyon / juniper	4	5	379	51	384	51	--	--	207	45	207	45	590	67
Ponderosa pine	1,255	174	17	12	1,273	174	95	54	--	--	95	54	1,368	180
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	173	45	625	66	798	77	--	--	5	6	5	6	803	77
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	9	10	32	22	42	24	--	--	211	87	211	87	252	90
Total	3,179	261	1,215	117	4,394	281	433	176	423	97	856	201	5,250	343
Hardwoods:														
Alder / maple	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aspen / birch	20	21	10	6	30	22	4	4	--	--	4	4	34	22
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western oak	29	18	18	17	47	25	--	--	--	--	--	--	47	25
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	13	9	--	--	13	9	--	--	--	--	--	--	13	9
Total	62	29	28	18	90	34	4	4	--	--	4	4	95	35
Nonstocked	16	7			16	7	--	--	--	--	--	--	16	7
All forest types	3,256	265	1,244	118	4,501	285	437	177	423	97	860	202	5,361	347

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D37: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) by Forest Type and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	21,818	1,160	69	54	21,887	1,162	6,867	654	7	9	6,874	653	28,761	1,306
Douglas-fir	4,871	654	--	--	4,871	654	2,561	518	47	29	2,607	518	7,478	810
Fir / spruce / mountain hemlock	1,023	278	29	34	1,051	279	1,249	329	5	7	1,254	329	2,305	431
Western Hemlock / Sitka spruce	--	--	--	--	--	--	25	24	--	--	25	24	25	24
Lodgepole pine	20	21	--	--	20	21	6	7	10	11	16	13	36	25
Pinyon / juniper	--	--	1	1	1	1	--	--	--	--	--	--	1	1
Ponderosa pine	760	181	--	--	760	181	394	158	29	29	423	159	1,184	241
Redwood	176	155	--	--	176	155	1,168	685	--	--	1,168	685	1,344	702
Western juniper	--	--	3	3	3	3	--	--	--	--	--	--	3	3
Western white pine	59	47	--	--	59	47	52	26	4	4	56	27	115	54
Other western softwoods	39	29	34	20	73	35	9	10	5	5	13	11	87	37
Total	28,766	1,297	136	68	28,902	1,298	12,329	1,071	107	44	12,436	1,071	41,338	1,618
Hardwoods:														
Alder / maple	488	153	41	34	530	156	263	149	3	4	266	149	796	216
Aspen / birch	--	--	--	--	--	--	--	--	1	2	1	2	1	2
Elm / ash / cottonwood	--	--	16	12	16	12	--	--	--	--	--	--	16	12
Tanoak / laurel	4,975	691	156	77	5,130	695	2,038	449	90	67	2,127	454	7,257	819
Western oak	6,340	630	6,082	433	12,422	750	724	187	904	190	1,628	263	14,050	790
Woodland hardwoods	--	--	1	1	1	1	--	--	8	6	8	6	10	7
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	823	262	65	38	888	265	18	16	20	22	39	28	927	267
Total	12,626	945	6,361	440	18,987	1,026	3,043	505	1,027	202	4,070	541	23,056	1,139
Nonstocked	29	11	--	--	29	11	51	33	1	1	52	33	81	35
All forest types	41,421	1,416	6,497	445	47,918	1,452	15,423	1,089	1,134	208	16,557	1,096	64,475	1,688

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D38: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) by Forest Type and Forest Land Status, 2010-2019: North Coast

Forest type group	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	SE
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	6,887	825	--	--	6,887	825	1,658	554	--	--	1,658	554	8,545	980
Fir / spruce / mountain hemlock	95	60	--	--	95	60	--	--	--	--	--	--	95	60
Western Hemlock / Sitka spruce	477	222	--	--	477	222	--	--	--	--	--	--	477	222
Lodgepole pine	--	--	--	--	--	--	5	5	--	--	5	5	5	5
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwood	8,403	925	--	--	8,403	925	2,611	1,190	--	--	2,611	1,190	11,014	1,486
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	55	60	--	--	55	60	58	64	5	5	63	64	119	88
Total	15,918	1,188	--	--	15,918	1,188	4,332	1,293	5	5	4,337	1,293	20,255	1,718
Hardwoods:														
Alder / maple	569	183	--	--	569	183	167	127	--	--	167	127	736	223
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	7,746	714	281	138	8,026	720	1,227	331	267	212	1,494	393	9,520	815
Western oak	1,196	259	680	141	1,877	295	--	--	97	58	97	58	1,973	300
Woodland hardwoods	--	--	--	--	--	--	--	--	14	15	14	15	14	15
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	552	194	11	12	564	194	141	109	--	--	141	109	705	223
Total	10,063	788	973	198	11,036	805	1,535	359	378	220	1,913	421	12,949	902
Nonstocked	8	5	--	--	8	5	--	--	--	--	--	--	8	5
All forest types	25,989	1,281	973	198	26,962	1,284	5,867	1,294	383	220	6,250	1,313	33,211	1,774

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D39: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) by Forest Type and Forest Land Status, 2010-2019: Sierra Cascades

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	33,317	1,241	32	31	33,350	1,241	7,097	687	45	58	7,142	688	40,491	1,400
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	11,421	913	72	74	11,493	916	4,296	654	244	119	4,540	664	16,033	1,130
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	1,293	244	153	72	1,447	250	3,291	413	864	200	4,156	440	5,602	505
Pinyon / juniper	17	15	191	48	208	50	5	4	205	47	210	47	418	68
Ponderosa pine	7,153	533	75	49	7,229	535	692	192	28	19	720	192	7,949	568
Redwood	6	6	--	--	6	6	--	--	--	--	--	--	6	6
Western juniper	180	55	239	47	418	72	299	94	34	19	333	96	751	120
Western white pine	33	24	--	--	33	24	345	127	122	57	467	139	500	141
Other western softwoods	54	31	32	17	86	35	173	84	692	156	864	174	950	177
Total	53,475	1,347	794	135	54,269	1,347	16,197	875	2,234	287	18,431	882	72,701	1,577
Hardwoods:														
Alder / maple	95	77	--	--	95	77	--	--	--	--	--	--	95	77
Aspen / birch	38	35	4	3	41	35	6	5	24	24	30	24	71	43
Elm / ash / cottonwood	--	--	15	15	15	15	--	--	--	--	--	--	15	15
Tanoak / laurel	628	233	3	2	631	233	--	--	--	--	--	--	631	233
Western oak	4,683	490	6,792	421	11,475	622	632	186	632	158	1,264	241	12,740	664
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	318	157	109	33	428	160	--	--	17	11	17	11	444	160
Total	5,762	567	6,924	421	12,685	683	638	186	672	160	1,311	242	13,996	721
Nonstocked	146	42			147	42	26	19	3	2	29	19	175	46
All forest types	59,383	1,362	7,718	442	67,101	1,387	16,861	871	2,909	329	19,771	885	86,872	1,604

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D40: Belowground Carbon, Dry Weight of Live Trees (>= 1 inch) by Forest Type and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	187	99	--	--	187	99	214	95	--	--	214	95	401	137
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	51	54	--	--	51	54	--	--	--	--	--	--	51	54
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	59	35	59	35	59	35
Pinyon / juniper	--	--	134	36	134	36	--	--	87	26	87	26	221	44
Ponderosa pine	66	48	--	--	66	48	159	67	26	28	185	73	251	87
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	53	37	16	15	68	39	--	--	--	--	--	--	68	39
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	--	--	--	--	9	8	--	--	9	8	9	8
Total	357	125	149	39	507	130	382	116	172	51	554	127	1,061	179
Hardwoods:														
Alder / maple	--	--	32	29	32	29	--	--	--	--	--	--	32	29
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	10	10	10	10	10	10
Tanoak / laurel	--	--	--	--	--	--	--	--	14	12	14	12	14	12
Western oak	237	91	701	135	938	164	94	52	166	75	259	91	1,198	187
Woodland hardwoods	--	--	49	20	49	20	--	--	14	8	14	8	64	22
Exotic hardwoods	1	1	--	--	1	1	--	--	--	--	--	--	1	1
Other hardwoods	--	--	28	16	28	16	--	--	--	--	--	--	28	16
Total	237	91	810	140	1,047	168	94	52	203	77	297	93	1,345	191
Nonstocked	1	1			1	1	2	1	--	--	2	1	4	2
All forest types	596	148	960	145	1,555	207	478	126	376	91	854	155	2,409	255

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D41: Belowground Carbon, Dry Weight of Dead Trees (>= 5 inch) by Forest Type and Forest Land Status, 2010-2019: All California

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	5,904	318	23	18	5,926	318	2,649	275	1	2	2,650	275	8,577	418
Douglas-fir	764	104	--	--	764	104	369	81	4	3	373	81	1,136	130
Fir / spruce / mountain hemlock	1,918	195	7	4	1,925	195	1,261	211	31	15	1,292	211	3,217	288
Western Hemlock / Sitka spruce	68	56	--	--	68	56	--	--	--	--	--	--	68	56
Lodgepole pine	187	47	41	27	228	54	463	80	118	29	581	84	810	100
Pinyon / juniper	4	4	66	13	70	13	1	2	53	17	55	17	124	21
Ponderosa pine	374	61	25	23	400	65	58	21	12	7	71	22	471	69
Redwood	726	115	--	--	726	115	231	84	--	--	231	84	957	142
Western juniper	23	9	34	8	57	12	37	15	--	--	37	15	94	19
Western white pine	21	14	--	--	21	14	60	21	21	15	81	26	102	29
Other western softwoods	52	34	39	22	90	41	36	19	126	33	162	37	253	55
Total	10,041	391	236	48	10,277	393	5,165	350	367	51	5,532	351	15,809	521
Hardwoods:														
Alder / maple	237	74	7	5	244	74	47	25	4	3	51	25	295	78
Aspen / birch	3	2	1	1	4	2	9	7	1	1	11	7	14	8
Elm / ash / cottonwood	--	--	5	5	5	5	--	--	4	3	4	3	9	6
Tanoak / laurel	644	72	66	26	710	76	259	58	111	52	370	78	1,080	108
Western oak	1,457	174	1,291	119	2,748	208	438	106	282	56	721	119	3,469	239
Woodland hardwoods	--	--	18	7	18	7	--	--	8	5	8	5	26	9
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	356	144	23	8	379	144	50	24	2	1	52	24	431	146
Total	2,697	246	1,411	122	4,108	272	804	125	412	76	1,216	144	5,324	306
Nonstocked	1,108	245	17	6	1,125	245	650	175	43	21	693	176	1,817	301
All forest types	13,846	500	1,664	131	15,510	511	6,619	392	822	94	7,441	399	22,950	638

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D42: Belowground Carbon, Dry Weight of Dead Trees (>= 5 inch) by Forest Type and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Forest type group	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	SE
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	7	5	--	--	7	5	--	--	--	--	--	--	7	5
Fir / spruce / mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pinyon / juniper	--	--	3	1	3	1	--	--					3	1
Ponderosa pine	--	--					--	--	1	1	1	1	1	1
Redwood	76	25	--	--	76	25	32	22	--	--	32	22	108	33
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	41	33	--	--	41	33	--	--	--	--	--	--	41	33
Total	125	42	3	1	128	42	32	22	1	1	33	22	161	47
Hardwoods:														
Alder / maple	--	--	--	--	--	--	1	1	--	--	1	1	1	1
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	13	7	32	20	45	21	15	9	83	50	98	51	143	55
Western oak	3	2	148	25	151	25	2	2	67	33	69	33	220	42
Woodland hardwoods	--	--	--	--	--	--	--	--	5	5	5	5	5	5
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	21	15	1	1	22	15	26	18	1	1	26	18	49	23
Total	37	16	181	32	218	36	43	20	157	60	200	63	418	73
Nonstocked			--	--			3	2	--	--	3	2	3	2
All forest types	162	45	184	32	346	55	78	29	158	60	236	67	582	86

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D43: Belowground Carbon, Dry Weight of Dead Trees (>= 5 inch) by Forest Type and Forest Land Status, 2010-2019: Central Valley

Forest type group	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	SE
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hardwoods:														
Alder / maple	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	5	5	5	5	--	--	3	3	3	3	8	6
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western oak	--	--	8	4	8	4	--	--	--	--	--	--	8	4
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	12	6	12	6	--	--	3	3	3	3	16	7
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All forest types	--	--	12	6	12	6	--	--	3	3	3	3	16	7

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D44: Belowground Carbon, Dry Weight of Dead Trees (>= 5 inch) by Forest Type and Forest Land Status, 2010-2019: Eastside

Forest type group	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	SE
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	83	20	1	1	84	20	--	--	--	--	--	--	84	20
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	67	23	--	--	67	23	25	12	--	--	25	12	93	26
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	2	1	29	26	31	27	--	--	--	--	--	--	31	27
Pinyon / juniper	--	--	23	6	23	6	--	--	10	3	10	3	33	6
Ponderosa pine	30	11			31	11	4	3	--	--	4	3	34	11
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	5	3	25	8	30	8	--	--	--	--	--	--	30	8
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	8	7	8	7	--	--	20	10	20	10	29	12
Total	188	31	86	29	274	42	29	13	31	10	60	16	334	45
Hardwoods:														
Alder / maple	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aspen / birch	2	2			2	2	7	7	--	--	7	7	8	7
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western oak	3	2	--	--	3	2	--	--	--	--	--	--	3	2
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	3	3	--	--	3	3	--	--	--	--	--	--	3	3
Total	8	4			8	4	7	7	--	--	7	7	15	8
Nonstocked	63	28	4	4	67	29	--	--	--	--	--	--	67	29
All forest types	259	42	91	29	350	51	36	14	31	10	66	18	416	54

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D45: Belowground Carbon, Dry Weight of Dead Trees (>= 5 inch) by Forest Type and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	2,456	230	3	3	2,459	230	1,242	189	--	--	1,242	189	3,701	297
Douglas-fir	434	88	--	--	434	88	285	77	4	3	289	77	723	115
Fir / spruce / mountain hemlock	164	47	3	3	168	47	346	113			346	113	514	123
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine			--	--			1	2	1	1	2	2	2	2
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	83	37	--	--	83	37	13	10	7	6	20	11	103	39
Redwood	9	8	--	--	9	8	28	16	--	--	28	16	36	18
Western juniper	--	--	1	1	1	1	--	--	--	--	--	--	1	1
Western white pine	9	7	--	--	9	7	14	8	1	1	15	8	24	10
Other western softwoods	9	6	15	13	24	15			--	--			24	15
Total	3,163	249	23	14	3,186	249	1,929	221	13	7	1,942	222	5,128	331
Hardwoods:														
Alder / maple	90	51	6	5	96	51	27	17	4	3	31	17	127	54
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood				1		1	--	--	--	--	--	--		1
Tanoak / laurel	305	57	13	13	318	58	169	49	22	14	191	51	509	76
Western oak	629	124	351	65	980	140	184	74	80	29	263	80	1,243	161
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	297	142	2	1	299	142	23	16			23	16	322	143
Total	1,321	202	372	67	1,692	212	402	92	106	33	509	97	2,201	232
Nonstocked	446	183	4	3	450	183	383	133	6	5	389	133	839	226
All forest types	4,930	352	399	68	5,329	357	2,714	264	124	35	2,839	266	8,167	441

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D46: Belowground Carbon, Dry Weight of Dead Trees (>= 5 inch) by Forest Type and Forest Land Status, 2010-2019: North Coast

Forest type group	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	SE
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	323	57	--	--	323	57	83	32	--	--	83	32	406	65
Fir / spruce / mountain hemlock	11	10	--	--	11	10	--	--	--	--	--	--	11	10
Western Hemlock / Sitka spruce	68	56	--	--	68	56	--	--	--	--	--	--	68	56
Lodgepole pine	--	--	--	--	--	--	2	2	--	--	2	2	2	2
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwood	641	113	--	--	641	113	171	80	--	--	171	80	812	138
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	1	1	--	--	1	1	7	8	1	--	8	8	9	8
Total	1,044	136	--	--	1,044	136	264	86	1	--	264	86	1,308	160
Hardwoods:														
Alder / maple	131	53	--	--	131	53	20	18	--	--	20	18	151	56
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	308	45	11	6	319	45	76	30	5	4	80	30	399	55
Western oak	64	20	20	7	85	21	--	--	1	1	1	1	86	21
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	12	6	1	1	13	7	1	1	--	--	1	1	14	7
Total	516	71	32	9	548	72	96	35	6	4	102	35	650	80
Nonstocked	1	1	--	--	1	1	--	--	--	--	--	--	1	1
All forest types	1,561	151	32	9	1,593	151	360	91	6	4	367	91	1,960	175

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D47: Belowground Carbon, Dry Weight of Dead Trees (>= 5 inch) by Forest Type and Forest Land Status, 2010-2019: Sierra Cascades

Forest type group	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	SE
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	3,351	221	18	18	3,370	221	1,375	200	1	2	1,377	200	4,746	295
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	1,670	188	4	3	1,674	188	890	178	31	15	921	178	2,594	259
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	185	47	12	7	197	47	459	80	91	24	551	82	748	95
Pinyon / juniper	4	4	17	8	21	9	1	2	33	16	35	16	56	19
Ponderosa pine	261	47	25	23	286	53	36	18	4	3	40	18	326	56
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	10	5	8	3	17	6	37	15	--	--	37	15	54	16
Western white pine	12	12	--	--	12	12	45	20	21	15	66	25	78	28
Other western softwoods	--	--	16	17	16	17	29	17	105	31	134	36	150	39
Total	5,493	274	100	36	5,594	275	2,873	262	287	47	3,159	264	8,753	377
Hardwoods:														
Alder / maple	16	11	--	--	16	11	--	--	--	--	--	--	16	11
Aspen / birch	1	1	1	1	2	1	3	3	1	1	4	3	6	4
Elm / ash / cottonwood	--	--					--	--	--	--	--	--		
Tanoak / laurel	18	9	11	9	29	13	--	--	--	--	--	--	29	13
Western oak	695	115	652	93	1,347	147	176	65	89	29	266	71	1,613	162
Woodland hardwoods	--	--	2	2	2	2	--	--	--	--	--	--	2	2
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	23	14	19	8	42	16	--	--	1	1	1	1	43	16
Total	752	117	685	94	1,437	148	179	65	92	29	271	71	1,708	164
Nonstocked	531	154	4	2	535	154	258	113	37	21	294	115	829	192
All forest types	6,777	325	789	100	7,566	335	3,310	282	415	58	3,724	285	11,290	435

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D48: Belowground Carbon, Dry Weight of Dead Trees (>= 5 inch) by Forest Type and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	13	7	--	--	13	7	32	16	--	--	32	16	46	18
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	6	6	--	--	6	6	--	--	--	--	--	--	6	6
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	26	16	26	16	26	16
Pinyon / juniper	--	--	23	8	23	8	--	--	9	3	9	3	32	9
Ponderosa pine			--	--			6	3	--	--	6	3	6	3
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	8	7			9	7	--	--	--	--	--	--	9	7
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	28	11	23	8	51	14	38	16	35	16	74	23	125	27
Hardwoods:														
Alder / maple	--	--	1	1	1	1	--	--	--	--	--	--	1	1
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	--	--	--	--	--	--	--	--	1		1		1	
Western oak	63	36	112	26	175	44	76	38	45	19	121	42	297	61
Woodland hardwoods	--	--	15	7	15	7	--	--	3	2	3	2	18	7
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	63	36	129	27	192	44	76	38	49	19	125	42	317	62
Nonstocked	66	48	4	3	70	47	6	3	1		7	3	77	48
All forest types	157	57	156	28	313	63	121	42	85	25	206	48	519	79

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D49: Soil Organic Carbon by Forest Type Group and Forest Land Status, 2010-2019: All California

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	300,468.53	7,168.31	1,382.19	638.52	301,850.72	7,180.50	69,283.53	3,885.47	397.71	358.38	69,681.25	3,886.36	371,531.97	7,994.85
Douglas-fir	41,973.00	3,081.80	--	--	41,973.00	3,081.80	11,743.92	1,808.98	1,374.23	705.31	13,118.15	1,934.64	55,091.15	3,539.99
Fir / spruce / mountain hemlock	70,067.28	4,282.78	1,319.38	644.45	71,386.66	4,323.99	26,167.63	2,786.12	2,249.61	867.80	28,417.24	2,891.94	99,803.90	5,190.75
Western Hemlock / Sitka spruce	1,200.03	571.37	--	--	1,200.03	571.37	93.72	93.01	--	--	93.72	93.01	1,293.75	578.89
Lodgepole pine	11,565.06	1,714.23	2,170.35	760.54	13,735.41	1,847.56	17,173.45	1,977.58	9,031.50	1,525.76	26,204.95	2,394.31	39,940.36	3,019.09
Pinyon / juniper	468.59	320.55	34,812.14	2,323.85	35,280.74	2,344.88	237.05	208.46	17,419.53	1,796.81	17,656.58	1,802.00	52,937.32	2,892.38
Ponderosa pine	85,997.10	4,148.14	1,795.06	649.41	87,792.16	4,193.66	9,634.11	1,569.36	1,428.77	564.21	11,062.89	1,652.14	98,855.05	4,495.19
Redwood	33,603.28	2,902.12	--	--	33,603.28	2,902.12	5,180.78	1,190.06	--	--	5,180.78	1,190.06	38,784.07	3,114.90
Western juniper	7,745.82	1,352.34	46,637.12	3,173.50	54,382.93	3,393.60	4,039.63	1,092.25	1,476.26	648.34	5,515.89	1,251.27	59,898.83	3,607.74
Western white pine	1,043.31	519.79	--	--	1,043.31	519.79	3,665.41	1,012.17	1,814.85	727.58	5,480.26	1,231.89	6,523.57	1,337.07
Other western softwoods	3,201.56	904.69	3,596.94	985.33	6,798.50	1,328.18	2,525.89	830.80	15,275.49	1,944.93	17,801.38	2,082.81	24,599.89	2,470.22
Total	557,333.57	7,528.47	91,713.18	4,163.34	649,046.75	8,210.36	149,745.14	4,912.44	50,467.96	3,220.84	200,213.09	5,349.76	849,259.84	9,191.04
Hardwoods:														
Alder / maple	7,091.93	1,304.21	721.20	310.04	7,813.13	1,340.30	1,529.91	627.58	380.06	339.29	1,909.97	713.42	9,723.10	1,517.80
Aspen / birch	499.17	324.02	1,071.10	520.39	1,570.26	613.02	805.50	481.77	630.44	379.19	1,435.94	613.10	3,006.20	866.99
Elm / ash / cottonwood	--	--	1,132.49	470.31	1,132.49	470.31	23.64	22.19	370.20	253.80	393.84	254.76	1,526.33	534.78
Tanoak / laurel	52,256.83	3,317.41	6,179.85	1,213.81	58,436.68	3,500.65	14,554.18	2,011.38	4,909.29	1,190.47	19,463.48	2,285.67	77,900.16	4,115.18
Western oak	89,633.09	4,674.45	239,169.35	5,943.19	328,802.44	7,018.19	13,821.67	1,950.58	34,829.46	2,774.32	48,651.13	3,306.64	377,453.57	7,543.33
Woodland hardwoods	--	--	2,730.91	665.12	2,730.91	665.12	--	--	719.02	283.29	719.02	283.29	3,449.93	722.85
Exotic hardwoods	76.43	76.87	60.86	60.07	137.29	97.56	--	--	--	--	--	--	137.29	97.56
Other hardwoods	14,993.02	2,046.25	7,349.71	1,351.85	22,342.72	2,447.19	3,285.38	1,105.89	1,292.24	533.19	4,577.62	1,222.12	26,920.35	2,732.70
Total	164,550.46	5,898.78	258,415.47	6,044.31	422,965.93	7,729.17	34,020.29	3,011.53	43,130.71	3,073.87	77,151.00	4,119.93	500,116.93	8,427.91
Nonstocked	25,793.64	2,352.70	6,512.41	1,219.13	32,306.05	2,635.62	9,545.55	1,548.18	3,280.34	876.54	12,825.89	1,768.53	45,131.93	3,160.75
All forest types	747,677.67	7,031.93	356,641.06	7,217.27	1,104,318.73	8,143.29	193,310.98	5,082.82	96,879.00	4,417.22	290,189.98	5,735.57	1,394,508.71	8,411.34

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D50: Soil Organic Carbon by Forest Type Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	988.01	543.24	--	--	988.01	543.24	--	--	--	--	--	--	988.01	543.24
Fir / spruce / mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pinyon / juniper	--	--	3,621.25	845.55	3,621.25	845.55	--	--	567.43	332.63	567.43	332.63	4,188.67	907.46
Ponderosa pine	--	--	552.50	395.47	552.50	395.47	--	--	223.08	187.85	223.08	187.85	775.58	437.81
Redwood	4,881.05	1,118.06	--	--	4,881.05	1,118.06	1,912.82	702.31	--	--	1,912.82	702.31	6,793.87	1,327.52
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	696.18	443.42	--	--	696.18	443.42	--	--	--	--	--	--	696.18	443.42
Total	6,565.24	1,304.35	4,173.75	933.46	10,738.99	1,603.91	1,912.82	702.31	790.50	382.01	2,703.32	799.48	13,442.31	1,796.78
Hardwoods:														
Alder / maple	--	--	195.07	170.84	195.07	170.84	207.45	248.99	--	--	207.45	248.99	402.53	301.97
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	113.06	86.19	113.06	86.19	--	--	--	--	--	--	113.06	86.19
Tanoak / laurel	1,495.63	634.43	2,268.78	719.61	3,764.41	958.29	1,052.39	557.55	1,995.87	695.20	3,048.26	886.15	6,812.67	1,299.69
Western oak	1,128.73	537.39	33,987.38	2,600.94	35,116.11	2,652.01	574.22	369.24	10,125.94	1,405.89	10,700.16	1,405.96	45,816.26	2,976.97
Woodland hardwoods	--	--	--	--	--	--	--	--	159.49	103.13	159.49	103.13	159.49	103.13
Exotic hardwoods	--	--	60.86	60.07	60.86	60.07	--	--	--	--	--	--	60.86	60.07
Other hardwoods	1,030.25	581.66	1,109.54	559.24	2,139.79	806.89	955.03	619.99	718.07	383.03	1,673.10	728.77	3,812.89	1,082.62
Total	3,654.61	1,010.26	37,734.69	2,741.12	41,389.30	2,911.24	2,789.09	907.64	12,999.37	1,585.06	15,788.46	1,735.22	57,177.76	3,336.82
Nonstocked	119.37	133.62	40.34	31.73	159.71	137.33	412.29	347.18	44.24	47.98	456.52	350.48	616.24	376.43
All forest types	10,339.23	1,665.81	41,948.78	2,883.51	52,288.00	3,311.65	5,114.20	1,172.60	13,834.10	1,629.79	18,948.30	1,896.27	71,236.30	3,766.63

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D51: Soil Organic Carbon by Forest Type Group and Forest Land Status, 2010-2019: Central Valley

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hardwoods:														
Alder / maple	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	533.07	364.97	533.07	364.97	--	--	236.74	223.69	236.74	223.69	769.81	427.94
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western oak	--	--	2,731.65	689.84	2,731.65	689.84	--	--	18.78	18.12	18.78	18.12	2,750.43	690.08
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	3,264.72	780.40	3,264.72	780.40	--	--	255.52	224.42	255.52	224.42	3,520.24	811.93
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All forest types	--	--	3,264.72	780.40	3,264.72	780.40	--	--	255.52	224.42	255.52	224.42	3,520.24	811.93

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D52: Soil Organic Carbon by Forest Type Group and Forest Land Status, 2010-2019: Eastside

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	10,998.80	1,595.17	328.67	292.18	11,327.47	1,611.63	--	--	--	--	--	--	11,327.47	1,611.63
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	4,074.20	1,005.50	--	--	4,074.20	1,005.50	1,879.85	794.89	--	--	1,879.85	794.89	5,954.05	1,281.75
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	678.74	391.67	797.03	455.03	1,475.77	594.08	--	--	--	--	--	--	1,475.77	594.08
Pinyon / juniper	229.14	236.83	15,801.78	1,600.72	16,030.91	1,617.26	--	--	5,658.27	1,047.19	5,658.27	1,047.19	21,689.19	1,888.47
Ponderosa pine	14,904.24	1,734.80	219.48	160.33	15,123.72	1,741.66	850.71	448.27	--	--	850.71	448.27	15,974.43	1,782.81
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	4,141.76	973.62	34,420.56	2,717.26	38,562.32	2,826.13	--	--	217.86	234.91	217.86	234.91	38,780.17	2,835.88
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	189.24	198.46	610.98	398.93	800.22	445.57	--	--	2,340.65	750.13	2,340.65	750.13	3,140.87	872.48
Total	35,216.10	2,419.61	52,178.49	3,157.39	87,394.59	3,817.19	2,730.56	905.26	8,216.78	1,306.98	10,947.34	1,585.89	98,341.94	4,082.26
Hardwoods:														
Alder / maple	--	--	--	--	--	--	--	--	2.23	1.99	2.23	1.99	2.23	1.99
Aspen / birch	239.26	254.83	917.20	507.25	1,156.46	567.66	365.09	346.32	5.64	5.69	370.73	346.37	1,527.19	664.99
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western oak	279.31	186.92	514.39	346.35	793.70	423.45	--	--	--	--	--	--	793.70	423.45
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	1,096.68	552.81	192.94	187.10	1,289.63	583.61	--	--	--	--	--	--	1,289.63	583.61
Total	1,615.25	633.98	1,624.53	638.60	3,239.79	912.32	365.09	346.32	7.87	6.03	372.96	346.37	3,612.75	975.86
Nonstocked	4,878.76	1,057.98	2,564.75	803.47	7,443.51	1,323.09	--	--	146.93	157.05	146.93	157.05	7,590.43	1,332.38
All forest types	41,710.11	2,693.22	56,367.77	3,294.41	98,077.89	4,073.31	3,095.65	967.53	8,371.58	1,324.32	11,467.23	1,636.10	109,545.12	4,338.00

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D53: Soil Organic Carbon by Forest Type Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	106,504.16	4,819.34	671.73	431.67	107,175.88	4,835.41	31,351.46	2,633.73	207.72	260.88	31,559.18	2,627.81	138,735.06	5,425.88
Douglas-fir	18,368.57	2,199.90	--	--	18,368.57	2,199.90	8,440.51	1,586.21	1,374.23	705.31	9,814.74	1,728.15	28,183.31	2,713.96
Fir / spruce / mountain hemlock	6,518.55	1,418.61	572.03	426.87	7,090.58	1,471.56	6,967.36	1,517.30	142.89	213.04	7,110.25	1,528.19	14,200.83	2,121.52
Western Hemlock / Sitka spruce	--	--	--	--	--	--	93.72	93.01	--	--	93.72	93.01	93.72	93.01
Lodgepole pine	451.79	336.68	--	--	451.79	336.68	230.56	267.07	290.34	308.43	520.89	407.99	972.68	528.97
Pinyon / juniper	--	--	109.03	122.04	109.03	122.04	--	--	--	--	--	--	109.03	122.04
Ponderosa pine	7,101.05	1,292.23	--	--	7,101.05	1,292.23	1,903.46	704.32	294.67	241.06	2,198.13	734.12	9,299.18	1,485.61
Redwood	496.29	373.62	--	--	496.29	373.62	937.12	529.89	--	--	937.12	529.89	1,433.41	648.36
Western juniper	--	--	599.86	367.69	599.86	367.69	--	--	--	--	--	--	599.86	367.69
Western white pine	533.90	379.63	--	--	533.90	379.63	1,351.45	616.00	304.39	322.88	1,655.84	680.28	2,189.74	779.03
Other western softwoods	752.20	446.15	1,624.72	688.49	2,376.92	816.43	123.59	141.54	221.05	249.85	344.64	287.16	2,721.56	865.37
Total	140,726.51	5,294.72	3,577.37	996.09	144,303.88	5,356.39	51,399.23	3,176.81	2,835.29	976.81	54,234.51	3,280.30	198,538.40	6,054.85
Hardwoods:														
Alder / maple	3,618.29	974.13	316.36	204.13	3,934.65	995.29	858.05	460.96	377.83	339.28	1,235.88	572.36	5,170.53	1,148.13
Aspen / birch	--	--	--	--	--	--	--	--	138.22	206.07	138.22	206.07	138.22	206.07
Elm / ash / cottonwood	--	--	177.61	139.55	177.61	139.55	23.64	22.19	--	--	23.64	22.19	201.25	141.30
Tanoak / laurel	19,172.28	2,268.05	1,278.49	564.80	20,450.77	2,326.09	9,385.40	1,662.53	1,747.14	801.51	11,132.54	1,824.43	31,583.31	2,883.38
Western oak	41,632.25	3,291.44	76,796.29	4,134.62	118,428.54	5,139.20	6,580.99	1,390.06	11,063.19	1,752.37	17,644.18	2,211.87	136,072.72	5,496.40
Woodland hardwoods	--	--	120.59	68.85	120.59	68.85	--	--	104.06	79.40	104.06	79.40	224.65	105.10
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	5,818.80	1,308.81	798.08	402.53	6,616.87	1,369.31	1,745.32	814.27	199.78	200.89	1,945.11	838.68	8,561.98	1,605.33
Total	70,241.62	4,200.24	79,487.42	4,173.58	149,729.04	5,747.14	18,593.41	2,311.01	13,630.22	1,978.56	32,223.63	2,983.03	181,952.67	6,309.06
Nonstocked	5,216.01	1,154.43	610.24	353.06	5,826.25	1,207.21	3,620.58	954.81	550.47	396.69	4,171.06	1,033.94	9,997.30	1,579.39
All forest types	216,184.14	5,961.29	83,675.03	4,292.34	299,859.17	6,987.44	73,613.22	3,438.58	17,015.98	2,228.67	90,629.20	3,806.18	390,488.37	7,350.78

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D54: Soil Organic Carbon by Forest Type Group and Forest Land Status, 2010-2019: North Coast

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	22,616.42	2,248.37	--	--	22,616.42	2,248.37	3,303.41	972.54	--	--	3,303.41	972.54	25,919.83	2,420.85
Fir / spruce / mountain hemlock	559.20	351.48	--	--	559.20	351.48	--	--	--	--	--	--	559.20	351.48
Western Hemlock / Sitka spruce	1,200.03	571.37	--	--	1,200.03	571.37	--	--	--	--	--	--	1,200.03	571.37
Lodgepole pine	--	--	--	--	--	--	154.14	158.28	24.48	26.87	178.62	160.55	178.62	160.55
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwood	28,056.14	2,700.75	--	--	28,056.14	2,700.75	2,330.84	822.84	--	--	2,330.84	822.84	30,386.98	2,800.75
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	211.65	200.81	--	--	211.65	200.81	278.01	254.12	405.30	352.48	683.32	434.54	894.97	478.69
Total	52,643.43	3,327.44	--	--	52,643.43	3,327.44	6,066.41	1,262.94	429.79	353.51	6,496.19	1,316.59	59,139.62	3,513.60
Hardwoods:														
Alder / maple	3,132.39	837.72	43.20	43.46	3,175.59	838.44	464.41	349.25	--	--	464.41	349.25	3,640.00	908.27
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	28,847.28	2,419.68	1,447.31	593.27	30,294.58	2,470.77	4,116.39	1,016.96	856.51	486.42	4,972.90	1,126.46	35,267.48	2,703.19
Western oak	6,755.08	1,327.14	6,580.14	1,181.83	13,335.22	1,775.59	--	--	833.44	431.05	833.44	431.05	14,168.66	1,837.27
Woodland hardwoods	--	--	--	--	--	--	--	--	48.21	52.28	48.21	52.28	48.21	52.28
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	2,625.62	833.71	69.29	70.85	2,694.92	836.71	585.03	430.69	--	--	585.03	430.69	3,279.95	940.20
Total	41,360.37	2,918.59	8,139.94	1,327.78	49,500.31	3,174.65	5,165.84	1,120.41	1,738.15	652.03	6,903.99	1,291.20	56,404.29	3,418.61
Nonstocked	570.45	338.23	--	--	570.45	338.23	--	--	--	--	--	--	570.45	338.23
All forest types	94,574.25	3,891.82	8,139.94	1,327.78	102,714.19	4,070.30	11,232.24	1,543.17	2,167.94	741.70	13,400.18	1,712.19	116,114.37	4,301.04

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D55: Soil Organic Carbon by Forest Type Group and Forest Land Status, 2010-2019: Sierra Cascades

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	181,587.25	5,668.85	381.79	368.78	181,969.04	5,674.08	36,172.30	2,855.42	190.00	245.72	36,362.30	2,862.09	218,331.34	6,255.39
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	58,511.98	3,925.80	747.35	482.81	59,259.33	3,957.10	17,320.42	2,214.06	2,106.72	841.24	19,427.14	2,338.76	78,686.47	4,583.94
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	10,434.54	1,637.79	1,373.32	614.18	11,807.86	1,724.16	16,788.75	1,953.06	7,935.11	1,424.13	24,723.87	2,310.49	36,531.72	2,877.47
Pinyon / juniper	239.46	216.01	7,114.90	1,229.57	7,354.36	1,248.40	237.05	208.46	5,245.26	961.95	5,482.31	971.61	12,836.68	1,568.16
Ponderosa pine	63,568.19	3,657.02	1,023.08	489.53	64,591.27	3,685.94	5,248.20	1,141.74	692.74	413.77	5,940.95	1,203.81	70,532.22	3,872.50
Redwood	169.81	153.18	--	--	169.81	153.18	--	--	--	--	--	--	169.81	153.18
Western juniper	2,970.37	832.75	11,293.51	1,672.21	14,263.88	1,866.47	4,039.63	1,092.25	1,258.41	604.28	5,298.04	1,229.02	19,561.91	2,231.55
Western white pine	509.41	355.06	--	--	509.41	355.06	2,313.96	803.14	1,510.46	652.01	3,824.42	1,027.03	4,333.83	1,086.67
Other western softwoods	1,352.29	585.74	1,361.25	582.86	2,713.54	814.89	1,782.36	703.63	12,197.54	1,753.43	13,979.90	1,854.47	16,693.44	2,025.61
Total	319,343.29	6,098.39	23,295.21	2,354.91	342,638.49	6,362.57	83,902.68	3,637.92	31,136.24	2,607.84	115,038.91	3,984.02	457,677.41	7,255.66
Hardwoods:														
Alder / maple	341.25	238.56	--	--	341.25	238.56	--	--	--	--	--	--	341.25	238.56
Aspen / birch	259.91	200.12	153.90	116.20	413.81	231.41	440.41	334.91	486.58	318.26	926.99	462.01	1,340.80	516.72
Elm / ash / cottonwood	--	--	306.26	247.16	306.26	247.16	--	--	--	--	--	--	306.26	247.16
Tanoak / laurel	2,741.64	874.11	1,185.28	543.39	3,926.92	1,029.24	--	--	--	--	--	--	3,926.92	1,029.24
Western oak	37,562.02	3,059.68	105,822.09	4,416.28	143,384.11	5,149.50	4,782.10	1,125.82	9,260.59	1,506.76	14,042.69	1,877.78	157,426.80	5,396.11
Woodland hardwoods	--	--	518.26	331.96	518.26	331.96	--	--	--	--	--	--	518.26	331.96
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	4,421.66	1,081.19	4,382.13	1,076.76	8,803.79	1,523.79	--	--	374.39	311.80	374.39	311.80	9,178.18	1,554.98
Total	45,326.49	3,348.44	112,367.92	4,511.16	157,694.40	5,386.09	5,222.51	1,171.19	10,121.55	1,571.25	15,344.06	1,956.73	173,038.47	5,638.57
Nonstocked	14,017.91	1,695.26	2,139.65	695.29	16,157.55	1,821.62	4,529.29	1,062.80	1,813.57	679.23	6,342.86	1,246.78	22,500.41	2,206.13
All forest types	378,687.68	6,275.77	137,802.77	5,067.00	516,490.45	7,439.82	93,654.47	3,707.32	43,071.36	3,072.34	136,725.84	4,210.58	653,216.29	8,177.41

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D56: Soil Organic Carbon by Forest Type Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	1,378.32	592.80	--	--	1,378.32	592.80	1,759.77	704.13	--	--	1,759.77	704.13	3,138.10	920.44
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	403.36	423.55	--	--	403.36	423.55	--	--	--	--	--	--	403.36	423.55
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	781.56	451.63	781.56	451.63	781.56	451.63
Pinyon / juniper	--	--	8,165.18	1,183.53	8,165.18	1,183.53	--	--	5,948.57	1,136.67	5,948.57	1,136.67	14,113.75	1,638.44
Ponderosa pine	423.62	322.85	--	--	423.62	322.85	1,631.74	692.13	218.28	231.80	1,850.03	729.91	2,273.64	798.13
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	633.69	439.70	323.18	303.21	956.88	520.30	--	--	--	--	--	--	956.88	520.30
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	--	--	--	--	341.93	332.46	110.95	111.12	452.88	350.54	452.88	350.54
Total	2,839.00	879.60	8,488.36	1,221.75	11,327.36	1,488.62	3,733.44	1,034.19	7,059.37	1,239.41	10,792.81	1,614.21	22,120.17	2,191.22
Hardwoods:														
Alder / maple	--	--	166.56	152.90	166.56	152.90	--	--	--	--	--	--	166.56	152.90
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	2.49	2.28	2.49	2.28	--	--	133.47	119.90	133.47	119.90	135.95	119.92
Tanoak / laurel	--	--	--	--	--	--	--	--	309.78	269.41	309.78	269.41	309.78	269.41
Western oak	2,275.69	726.36	12,737.42	1,603.15	15,013.11	1,757.71	1,884.36	705.40	3,527.52	890.70	5,411.88	1,106.82	20,424.99	2,072.51
Woodland hardwoods	--	--	2,092.06	572.76	2,092.06	572.76	--	--	407.26	246.13	407.26	246.13	2,499.33	623.31
Exotic hardwoods	76.43	76.87	--	--	76.43	76.87	--	--	--	--	--	--	76.43	76.87
Other hardwoods	--	--	797.72	440.44	797.72	440.44	--	--	--	--	--	--	797.72	440.44
Total	2,352.12	730.42	15,796.25	1,746.44	18,148.37	1,889.79	1,884.36	705.40	4,378.03	967.04	6,262.39	1,169.14	24,410.76	2,215.65
Nonstocked	991.13	488.10	1,157.44	507.26	2,148.57	697.54	983.39	484.88	725.13	352.07	1,708.52	599.22	3,857.09	919.17
All forest types	6,182.25	1,172.48	25,442.05	2,133.93	31,624.30	2,350.43	6,601.19	1,315.78	12,162.52	1,592.60	18,763.72	2,008.86	50,388.02	3,066.88

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D57: Aboveground Carbon Mass of Down Dead Wood, by Forest Type and Forest Land Status, 2010-2019: All California

Forest type group	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
<i>thousand metric tons C</i>														
Softwoods:														
California mixed conifer	30,847.33	1,157.00	77.05	47.70	30,924.38	1,157.32	8,356.06	751.73	7.24	7.34	8,363.31	751.60	39,287.69	1,369.50
Douglas-fir	6,017.66	675.67	--	--	6,017.66	675.67	1,327.81	337.61	6.72	4.23	1,334.53	337.64	7,352.18	750.48
Fir / spruce / mountain hemlock	7,416.51	626.40	34.26	20.72	7,450.77	626.79	3,323.56	558.58	276.05	181.17	3,599.61	587.12	11,050.38	858.19
Western Hemlock / Sitka spruce	309.21	234.33	--	--	309.21	234.33	2.54	2.52	--	--	2.54	2.52	311.75	234.34
Lodgepole pine	1,445.48	284.22	177.97	88.38	1,623.45	296.41	1,937.73	442.85	616.62	161.00	2,554.36	467.73	4,177.81	553.73
Pinyon / juniper	16.19	14.39	1,091.29	151.81	1,107.48	152.49	8.64	7.07	826.02	170.43	834.66	170.42	1,942.15	227.33
Ponderosa pine	4,739.18	380.22	47.54	21.06	4,786.72	380.73	939.16	248.21	44.71	25.39	983.87	249.37	5,770.59	454.54
Redwood	5,625.08	752.34	--	--	5,625.08	752.34	1,473.71	478.74	--	--	1,473.71	478.74	7,098.78	888.49
Western juniper	321.02	74.29	626.59	83.68	947.61	110.28	285.51	103.04	29.29	26.48	314.80	106.39	1,262.41	153.20
Western white pine	101.65	57.43	--	--	101.65	57.43	235.62	104.13	90.19	55.34	325.81	117.86	427.46	131.11
Other western softwoods	290.51	129.82	119.42	43.44	409.94	136.89	168.49	82.08	825.59	201.43	994.08	216.77	1,404.02	256.37
Total	57,129.81	1,564.61	2,174.13	202.94	59,303.94	1,572.28	18,058.83	1,127.74	2,722.43	358.02	20,781.26	1,165.65	80,085.20	1,932.06
Hardwoods:														
Alder / maple	1,030.27	243.86	133.94	87.55	1,164.21	259.10	442.27	252.89	87.98	82.52	530.25	266.01	1,694.46	371.33
Aspen / birch	11.15	6.71	63.36	31.01	74.51	31.73	63.51	59.74	50.89	57.36	114.40	82.82	188.91	88.69
Elm / ash / cottonwood	--	--	75.13	33.22	75.13	33.22	--	--	12.29	10.81	12.29	10.81	87.41	34.92
Tanoak / laurel	7,784.17	746.22	383.06	121.88	8,167.23	754.39	1,599.07	282.25	373.97	149.37	1,973.04	316.90	10,140.28	813.65
Western oak	7,087.05	582.02	8,340.80	472.60	15,427.85	743.97	732.50	155.60	1,767.67	272.79	2,500.16	310.61	17,928.01	800.39
Woodland hardwoods	--	--	72.82	34.54	72.82	34.54	--	--	101.19	61.03	101.19	61.03	174.01	70.12
Exotic hardwoods	6.51	6.55	0.03	0.03	6.53	6.55	--	--	--	--	--	--	6.53	6.55
Other hardwoods	1,909.17	469.97	288.80	81.02	2,197.97	476.84	188.31	99.73	70.37	76.71	258.68	125.81	2,456.65	492.22
Total	17,828.33	1,066.08	9,357.93	501.52	27,186.25	1,166.27	3,025.65	416.47	2,464.36	339.78	5,490.01	526.95	32,676.26	1,267.55
Nonstocked	2,090.15	309.15	240.66	66.61	2,330.81	316.05	1,281.48	370.08	309.00	117.26	1,590.48	387.77	3,921.29	500.21
All forest types	77,048.29	1,749.69	11,772.72	541.96	88,821.01	1,798.35	22,365.96	1,192.01	5,495.79	503.54	27,861.75	1,262.99	116,682.76	2,145.71

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D58: Aboveground Carbon Mass of Down Dead Wood, by Forest Type and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Forest type group	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
<i>thousand metric tons C</i>														
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	97.63	61.17	--	--	97.63	61.17	--	--	--	--	--	--	97.63	61.17
Fir / spruce / mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pinyon / juniper	--	--	32.22	18.79	32.22	18.79	--	--	0.44	0.35	0.44	0.35	32.66	18.79
Ponderosa pine	--	--	13.75	11.08	13.75	11.08	--	--	0.52	0.44	0.52	0.44	14.27	11.08
Redwood	794.63	285.40	--	--	794.63	285.40	451.97	236.29	--	--	451.97	236.29	1,246.61	370.53
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	59.96	46.52	--	--	59.96	46.52	--	--	--	--	--	--	59.96	46.52
Total	952.23	292.48	45.96	21.81	998.20	293.29	451.97	236.29	0.96	0.56	452.94	236.29	1,451.13	376.64
Hardwoods:														
Alder / maple	--	--	28.22	31.66	28.22	31.66	14.53	17.44	--	--	14.53	17.44	42.75	36.15
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	8.05	7.80	8.05	7.80	--	--	--	--	--	--	8.05	7.80
Tanoak / laurel	196.07	112.84	176.57	87.37	372.64	142.71	61.11	35.17	281.90	142.70	343.00	146.43	715.65	204.27
Western oak	63.96	36.81	1,305.15	174.09	1,369.11	177.88	36.57	24.66	527.10	175.41	563.68	176.52	1,932.79	249.98
Woodland hardwoods	--	--	--	--	--	--	--	--	11.26	9.13	11.26	9.13	11.26	9.13
Exotic hardwoods	--	--	0.03	0.03	0.03	0.03	--	--	--	--	--	--	0.03	0.03
Other hardwoods	170.45	106.33	21.02	14.44	191.47	107.31	106.02	83.38	11.62	8.22	117.64	83.79	309.12	134.28
Total	430.48	159.09	1,539.05	197.03	1,969.52	252.97	218.23	92.91	831.88	226.89	1,050.11	240.86	3,019.63	345.52
Nonstocked	1.81	2.02	2.06	1.62	3.87	2.59	7.39	6.22	1.91	2.07	9.30	6.56	13.17	7.05
All forest types	1,384.52	332.13	1,587.07	198.20	2,971.59	386.42	677.59	252.39	834.76	226.98	1,512.35	353.67	4,483.94	521.17

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D59: Aboveground Carbon Mass of Down Dead Wood, by Forest Type and Forest Land Status, 2010-2019: Central Valley

Forest type group	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	SE
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hardwoods:														
Alder / maple	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	40.89	28.36	40.89	28.36	--	--	10.50	10.66	10.50	10.66	51.39	30.29
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western oak	--	--	112.70	52.87	112.70	52.87	--	--	--	--	--	--	112.70	52.87
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	153.59	59.99	153.59	59.99	--	--	10.50	10.66	10.50	10.66	164.09	60.93
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All forest types	--	--	153.59	59.99	153.59	59.99	--	--	10.50	10.66	10.50	10.66	164.09	60.93

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D60: Aboveground Carbon Mass of Down Dead Wood, by Forest Type and Forest Land Status, 2010-2019: Eastside

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	979.22	188.23	36.95	39.26	1,016.17	191.83	--	--	--	--	--	--	1,016.17	191.83
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	354.85	105.32	--	--	354.85	105.32	138.29	83.36	--	--	138.29	83.36	493.13	134.32
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	122.44	77.72	122.40	82.80	244.84	112.08	--	--	--	--	--	--	244.84	112.08
Pinyon / juniper	0.23	0.24	456.69	85.49	456.92	85.49	--	--	204.23	59.48	204.23	59.48	661.15	103.42
Ponderosa pine	860.50	167.81	8.46	7.47	868.96	167.97	86.57	64.69	--	--	86.57	64.69	955.53	178.65
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	137.81	46.99	486.24	74.49	624.05	86.05	--	--	0.25	0.26	0.25	0.26	624.29	86.05
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	4.08	4.28	25.89	20.22	29.97	20.66	--	--	155.57	60.49	155.57	60.49	185.54	63.92
Total	2,459.13	271.05	1,136.63	143.61	3,595.76	301.02	224.85	105.23	360.04	84.25	584.89	134.75	4,180.66	327.66
Hardwoods:														
Alder / maple	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aspen / birch	2.43	2.59	52.85	29.01	55.29	29.13	56.89	59.50	--	--	56.89	59.50	112.17	66.24
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western oak	30.46	18.90	21.33	18.75	51.79	27.10	--	--	--	--	--	--	51.79	27.10
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	56.92	33.25	0.31	0.31	57.23	33.25	--	--	--	--	--	--	57.23	33.25
Total	89.81	38.27	74.50	34.54	164.30	51.79	56.89	59.50	--	--	56.89	59.50	221.19	78.88
Nonstocked	193.67	57.62	70.74	28.66	264.41	64.32	--	--	7.82	8.36	7.82	8.36	272.24	64.86
All forest types	2,742.61	279.35	1,281.87	149.68	4,024.48	310.63	281.74	119.66	367.87	86.16	649.60	147.41	4,674.08	341.76

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D61: Aboveground Carbon Mass of Down Dead Wood, by Forest Type and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Forest type group	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
<i>thousand metric tons C</i>														
Softwoods:														
California mixed conifer	10,229.37	640.90	30.55	25.47	10,259.92	641.26	3,594.77	445.89	1.86	2.34	3,596.63	445.77	13,856.55	775.43
Douglas-fir	2,424.76	459.78	--	--	2,424.76	459.78	715.32	231.11	6.72	4.23	722.04	231.15	3,146.80	510.68
Fir / spruce / mountain hemlock	479.46	121.19	6.72	9.38	486.18	121.34	608.72	199.92	2.93	4.37	611.65	199.96	1,097.83	233.89
Western Hemlock / Sitka spruce	--	--	--	--	--	--	2.54	2.52	--	--	2.54	2.52	2.54	2.52
Lodgepole pine	24.19	17.33	--	--	24.19	17.33	3.40	3.94	2.40	2.55	5.80	4.69	29.99	17.95
Pinyon / juniper	--	--	0.37	0.41	0.37	0.41	--	--	--	--	--	--	0.37	0.41
Ponderosa pine	332.80	84.65	--	--	332.80	84.65	79.69	51.79	19.34	17.33	99.03	54.11	431.83	100.47
Redwood	19.45	17.07	--	--	19.45	17.07	327.51	186.88	--	--	327.51	186.88	346.96	187.66
Western juniper	--	--	1.15	1.03	1.15	1.03	--	--	--	--	--	--	1.15	1.03
Western white pine	37.22	35.45	--	--	37.22	35.45	51.30	27.44	0.95	1.01	52.25	27.43	89.48	44.82
Other western softwoods	88.55	62.86	60.02	33.96	148.57	71.43	36.33	41.60	17.10	19.33	53.42	45.87	202.00	84.88
Total	13,635.79	777.97	98.82	43.49	13,734.61	778.46	5,419.57	551.82	51.30	27.28	5,470.87	552.26	19,205.49	943.59
Hardwoods:														
Alder / maple	482.85	184.30	101.74	81.54	584.59	201.53	200.14	129.63	87.98	82.52	288.12	153.66	872.71	253.43
Aspen / birch	--	--	--	--	--	--	--	--	1.30	1.94	1.30	1.94	1.30	1.94
Elm / ash / cottonwood	--	--	17.08	13.34	17.08	13.34	--	--	--	--	--	--	17.08	13.34
Tanoak / laurel	2,845.87	477.06	100.69	73.64	2,946.56	481.31	812.30	170.86	30.43	16.79	842.74	171.63	3,789.29	506.76
Western oak	3,265.47	395.36	2,759.62	329.67	6,025.10	509.00	355.27	117.85	555.27	137.81	910.54	180.80	6,935.63	537.30
Woodland hardwoods	--	--	2.00	1.84	2.00	1.84	--	--	1.81	1.38	1.81	1.38	3.81	2.30
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	1,182.20	431.78	57.09	41.87	1,239.29	433.81	63.39	52.63	58.67	76.26	122.05	92.66	1,361.35	443.26
Total	7,776.39	771.61	3,038.23	349.74	10,814.62	840.92	1,431.09	248.71	735.46	179.01	2,166.55	304.49	12,981.17	888.00
Nonstocked	364.07	126.84	22.64	21.94	386.70	128.72	446.90	164.59	13.23	12.53	460.13	165.07	846.83	209.32
All forest types	21,776.24	1,034.87	3,159.69	352.78	24,935.93	1,080.70	7,297.56	585.77	799.99	182.00	8,097.55	604.03	33,033.48	1,213.37

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D62: Aboveground Carbon Mass of Down Dead Wood, by Forest Type and Forest Land Status, 2010-2019: North Coast

Forest type group	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	SE
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	3,495.27	506.64	--	--	3,495.27	506.64	612.48	248.16	--	--	612.48	248.16	4,107.75	561.96
Fir / spruce / mountain hemlock	21.04	13.68	--	--	21.04	13.68	--	--	--	--	--	--	21.04	13.68
Western Hemlock / Sitka spruce	309.21	234.33	--	--	309.21	234.33	--	--	--	--	--	--	309.21	234.33
Lodgepole pine	--	--	--	--	--	--	1.55	1.59	--	--	1.55	1.59	1.55	1.59
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwood	4,765.08	700.99	--	--	4,765.08	700.99	694.23	376.50	--	--	694.23	376.50	5,459.31	792.54
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	81.87	99.55	--	--	81.87	99.55	8.56	7.61	9.17	7.97	17.73	11.02	99.60	100.16
Total	8,672.47	869.29	--	--	8,672.47	869.29	1,316.82	445.60	9.17	7.97	1,325.99	445.67	9,998.46	968.71
Hardwoods:														
Alder / maple	495.91	153.19	--	--	495.91	153.19	227.60	217.27	--	--	227.60	217.27	723.51	265.84
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	4,337.04	553.51	85.85	41.06	4,422.89	554.38	725.66	222.92	54.45	40.63	780.11	226.58	5,203.00	596.69
Western oak	432.78	127.29	175.77	44.96	608.55	134.93	--	--	20.80	11.60	20.80	11.60	629.35	135.62
Woodland hardwoods	--	--	--	--	--	--	--	--	4.65	5.04	4.65	5.04	4.65	5.04
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	147.19	60.12	--	--	147.19	60.12	18.91	15.44	--	--	18.91	15.44	166.10	61.55
Total	5,412.92	586.85	261.62	60.87	5,674.54	588.94	972.16	308.01	79.90	42.56	1,052.06	310.91	6,726.60	661.80
Nonstocked	30.36	24.17	--	--	30.36	24.17	--	--	--	--	--	--	30.36	24.17
All forest types	14,115.76	998.63	261.62	60.87	14,377.38	998.98	2,288.98	521.01	89.07	43.30	2,378.05	522.78	16,755.43	1,108.80

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D63: Aboveground Carbon Mass of Down Dead Wood, by Forest Type and Forest Land Status, 2010-2019: Sierra Cascades

Forest type group	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
<i>thousand metric tons C</i>														
Softwoods:														
California mixed conifer	19,437.46	972.09	9.55	9.22	19,447.01	971.97	4,580.22	603.82	5.38	6.96	4,585.60	603.74	24,032.61	1,138.78
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	6,521.60	607.71	27.54	18.48	6,549.13	608.08	2,576.56	515.37	273.12	181.11	2,849.67	546.16	9,398.81	816.69
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	1,298.85	272.91	55.58	31.15	1,354.42	274.03	1,932.79	442.83	479.25	138.20	2,412.03	460.36	3,766.46	535.74
Pinyon / juniper	15.95	14.39	332.12	114.25	348.08	115.15	8.64	7.07	356.43	124.54	365.07	124.52	713.15	169.17
Ponderosa pine	3,533.20	335.06	25.33	16.28	3,558.53	335.42	580.74	213.68	11.44	11.89	592.18	214.00	4,150.70	397.82
Redwood	45.91	41.42	--	--	45.91	41.42	--	--	--	--	--	--	45.91	41.42
Western juniper	138.77	48.71	138.81	38.43	277.58	62.03	285.51	103.04	29.04	26.48	314.55	106.39	592.14	123.15
Western white pine	64.42	45.18	--	--	64.42	45.18	184.32	100.45	89.24	55.33	273.56	114.62	337.98	123.21
Other western softwoods	56.05	28.46	33.51	18.02	89.56	33.67	123.52	70.35	633.29	191.37	756.81	203.21	846.37	205.98
Total	31,112.20	1,107.72	622.44	128.03	31,734.64	1,112.53	10,272.30	864.03	1,877.18	324.29	12,149.47	905.17	43,884.12	1,424.48
Hardwoods:														
Alder / maple	51.51	45.84	--	--	51.51	45.84	--	--	--	--	--	--	51.51	45.84
Aspen / birch	8.72	6.19	10.51	10.96	19.22	12.58	6.62	5.43	49.59	57.32	56.21	57.58	75.43	58.94
Elm / ash / cottonwood	--	--	9.11	7.77	9.11	7.77	--	--	--	--	--	--	9.11	7.77
Tanoak / laurel	405.20	201.72	19.95	11.02	425.15	202.02	--	--	--	--	--	--	425.15	202.02
Western oak	2,966.73	394.11	3,284.34	273.16	6,251.07	472.43	281.28	94.88	388.22	138.84	669.50	166.18	6,920.57	499.75
Woodland hardwoods	--	--	0.83	0.59	0.83	0.59	--	--	--	--	--	--	0.83	0.59
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	352.41	136.73	201.32	68.31	553.73	152.75	--	--	0.08	0.08	0.08	0.08	553.82	152.75
Total	3,784.57	463.56	3,526.06	281.92	7,310.63	535.65	287.90	95.03	437.90	150.21	725.80	175.88	8,036.43	562.83
Nonstocked	1,404.73	270.97	68.15	37.88	1,472.88	273.45	716.64	320.63	278.45	116.17	995.09	340.52	2,467.97	436.72
All forest types	36,301.51	1,184.53	4,216.65	311.53	40,518.15	1,211.33	11,276.84	910.07	2,593.52	373.69	13,870.36	960.69	54,388.52	1,531.95

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D64: Aboveground Carbon Mass of Down Dead Wood, by Forest Type and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	201.28	110.12	--	--	201.28	110.12	181.07	82.49	--	--	181.07	82.49	382.35	137.59
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	39.57	41.55	--	--	39.57	41.55	--	--	--	--	--	--	39.57	41.55
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	134.97	82.55	134.97	82.55	134.97	82.55
Pinyon / juniper	--	--	269.90	66.59	269.90	66.59	--	--	264.92	101.57	264.92	101.57	534.82	121.45
Ponderosa pine	12.68	10.09	--	--	12.68	10.09	192.16	96.60	13.41	14.24	205.57	97.64	218.26	98.16
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	44.45	30.80	0.38	0.36	44.83	30.78	--	--	--	--	--	--	44.83	30.78
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	--	--	--	--	0.08	0.07	10.48	10.49	10.55	10.49	10.55	10.49
Total	297.98	119.45	270.28	66.59	568.26	136.72	373.31	125.88	423.78	131.72	797.09	182.19	1,365.35	226.88
Hardwoods:														
Alder / maple	--	--	3.97	3.64	3.97	3.64	--	--	--	--	--	--	3.97	3.64
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	1.78	1.82	1.78	1.82	1.78	1.82
Tanoak / laurel	--	--	--	--	--	--	--	--	7.20	6.26	7.20	6.26	7.20	6.26
Western oak	327.66	126.78	681.88	130.99	1,009.54	218.48	59.38	27.62	276.27	91.91	335.65	95.19	1,345.18	238.34
Woodland hardwoods	--	--	69.99	34.49	69.99	34.49	--	--	83.47	60.11	83.47	60.11	153.46	69.30
Exotic hardwoods	6.51	6.55	--	--	6.51	6.55	--	--	--	--	--	--	6.51	6.55
Other hardwoods	--	--	9.04	5.06	9.04	5.06	--	--	--	--	--	--	9.04	5.06
Total	334.17	126.95	764.88	135.45	1,099.05	221.27	59.38	27.62	368.72	110.00	428.10	112.76	1,527.15	248.35
Nonstocked	95.51	51.88	77.08	41.65	172.59	66.29	110.56	83.86	7.58	4.99	118.14	84.00	290.72	107.01
All forest types	727.65	171.26	1,112.23	153.77	1,839.89	257.24	543.24	151.84	800.09	171.12	1,343.33	227.38	3,183.22	341.95

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D65: Forest Floor by Forest Type Group and Forest Land Status, 2010-2019: All California

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	44,340.29	1,068.98	170.64	79.76	44,510.93	1,070.16	10,041.08	579.76	55.84	51.93	10,096.92	580.50	54,607.85	1,188.31
Douglas-fir	3,915.34	288.59	--	--	3,915.34	288.59	967.24	148.78	82.82	42.60	1,050.06	154.49	4,965.40	319.50
Fir / spruce / mountain hemlock	8,878.83	544.31	112.10	58.94	8,990.93	547.02	3,318.96	360.32	253.91	100.56	3,572.87	371.98	12,563.80	659.92
Western Hemlock / Sitka spruce	226.49	106.62	--	--	226.49	106.62	22.76	22.58	--	--	22.76	22.58	249.25	108.99
Lodgepole pine	1,285.78	196.02	276.09	98.20	1,561.86	215.16	2,367.05	269.93	992.15	180.13	3,359.20	309.42	4,921.06	376.17
Pinyon / juniper	26.23	18.25	1,607.37	118.98	1,633.60	120.34	16.39	15.89	934.79	112.29	951.18	113.15	2,584.78	160.22
Ponderosa pine	9,026.66	453.08	142.64	52.58	9,169.31	455.72	985.64	164.04	120.28	48.72	1,105.92	169.92	10,275.23	485.46
Redwood	2,709.83	234.83	--	--	2,709.83	234.83	460.33	106.02	--	--	460.33	106.02	3,170.16	256.06
Western juniper	521.41	94.29	2,389.13	169.12	2,910.54	190.63	370.97	102.42	103.57	46.57	474.54	111.13	3,385.08	220.04
Western white pine	111.30	55.41	--	--	111.30	55.41	429.39	123.64	187.92	76.45	617.32	144.30	728.61	154.57
Other western softwoods	257.97	74.20	286.18	80.04	544.15	108.19	256.06	87.10	1,458.66	193.53	1,714.72	208.88	2,258.87	235.24
Total	71,300.13	999.38	4,984.14	258.95	76,284.28	1,006.04	19,235.88	637.98	4,189.94	305.66	23,425.82	652.73	99,710.10	1,127.63
Hardwoods:														
Alder / maple	581.12	107.80	65.86	28.76	646.98	111.56	135.01	56.48	24.51	21.50	159.52	60.44	806.50	126.82
Aspen / birch	47.22	30.99	62.64	29.79	109.86	42.98	52.37	30.20	50.93	31.49	103.30	43.63	213.17	61.25
Elm / ash / cottonwood	--	--	72.35	31.51	72.35	31.51	1.60	1.50	25.15	17.12	26.75	17.19	99.10	35.89
Tanoak / laurel	4,852.09	306.99	577.00	114.46	5,429.10	324.38	1,159.01	161.50	396.00	95.36	1,555.01	184.18	6,984.11	368.64
Western oak	6,324.49	336.13	12,103.40	331.93	18,427.88	438.38	943.38	136.90	1,964.75	164.09	2,908.13	209.30	21,336.01	474.52
Woodland hardwoods	--	--	162.90	40.78	162.90	40.78	--	--	55.06	23.34	55.06	23.34	217.96	46.98
Exotic hardwoods	4.33	4.36	3.95	3.90	8.29	5.85	--	--	--	--	--	--	8.29	5.85
Other hardwoods	1,232.27	173.12	427.80	78.24	1,660.07	189.58	246.98	84.20	87.49	35.47	334.47	91.10	1,994.54	210.01
Total	13,041.52	470.53	13,475.90	350.63	26,517.42	541.47	2,538.35	227.31	2,603.89	194.72	5,142.24	287.64	31,659.66	593.27
Nonstocked	1,744.41	159.72	300.53	59.31	2,044.93	169.55	557.09	94.11	162.33	45.56	719.41	104.20	2,764.35	198.29
All forest types	86,086.06	884.96	18,760.57	429.41	104,846.63	857.99	22,331.31	617.97	6,956.17	359.06	29,287.48	628.56	134,134.11	922.93

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D66: Forest Floor by Forest Type Group and Forest Land Status, 2010-2019: Central Coast and Interior Ranges

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	108.73	59.57	--	--	108.73	59.57	--	--	--	--	--	--	108.73	59.57
Fir / spruce / mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pinyon / juniper	--	--	126.01	31.81	126.01	31.81	--	--	15.98	9.56	15.98	9.56	141.99	33.19
Ponderosa pine	--	--	30.70	21.97	30.70	21.97	--	--	18.15	15.29	18.15	15.29	48.85	26.77
Redwood	474.73	109.58	--	--	474.73	109.58	192.71	70.55	--	--	192.71	70.55	667.43	131.05
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	59.07	38.33	--	--	59.07	38.33	--	--	--	--	--	--	59.07	38.33
Total	642.53	128.86	156.71	38.66	799.23	134.53	192.71	70.55	34.13	18.03	226.84	72.82	1,026.07	153.58
Hardwoods:														
Alder / maple	--	--	18.73	15.84	18.73	15.84	20.67	24.80	--	--	20.67	24.80	39.40	29.43
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	6.14	4.43	6.14	4.43	--	--	--	--	--	--	6.14	4.43
Tanoak / laurel	167.76	72.91	235.99	74.87	403.76	104.40	120.61	64.14	190.26	66.53	310.87	91.84	714.63	138.48
Western oak	75.29	36.05	1,813.82	142.40	1,889.11	146.63	26.99	17.96	603.37	87.08	630.36	87.08	2,519.47	168.95
Woodland hardwoods	--	--	--	--	--	--	--	--	9.46	6.12	9.46	6.12	9.46	6.12
Exotic hardwoods	--	--	3.95	3.90	3.95	3.90	--	--	--	--	--	--	3.95	3.90
Other hardwoods	82.56	48.14	56.68	27.63	139.24	55.50	67.36	43.68	47.04	25.72	114.41	50.69	253.64	74.59
Total	325.62	94.21	2,135.32	162.60	2,460.94	187.10	235.63	80.44	850.14	109.97	1,085.77	130.35	3,546.70	223.53
Nonstocked	7.24	8.10	3.53	2.78	10.77	8.57	20.31	17.10	2.39	2.60	22.71	17.30	33.47	19.30
All forest types	975.39	160.14	2,295.55	166.68	3,270.94	229.27	448.65	105.76	886.67	111.40	1,335.31	147.25	4,606.25	268.50

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D67: Forest Floor by Forest Type Group and Forest Land Status, 2010-2019: Central Valley

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hardwoods:														
Alder / maple	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	37.12	25.30	37.12	25.30	--	--	10.58	9.66	10.58	9.66	47.70	27.08
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western oak	--	--	138.26	36.04	138.26	36.04	--	--	1.19	1.15	1.19	1.15	139.45	36.06
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	175.38	44.03	175.38	44.03	--	--	11.77	9.72	11.77	9.72	187.15	45.09
Nonstocked	--	--	--	--	--	--	--	--	--	--	--	--	--	--
All forest types	--	--	175.38	44.03	175.38	44.03	--	--	11.77	9.72	11.77	9.72	187.15	45.09

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D68: Forest Floor by Forest Type Group and Forest Land Status, 2010-2019: Eastside

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	1,476.94	219.43	48.01	44.90	1,524.95	222.73	--	--	--	--	--	--	1,524.95	222.73
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	493.01	121.63	--	--	493.01	121.63	232.95	104.80	--	--	232.95	104.80	725.97	160.55
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	74.56	42.79	101.22	59.38	175.78	72.24	--	--	--	--	--	--	175.78	72.24
Pinyon / juniper	14.21	14.68	831.46	92.73	845.66	93.85	--	--	388.20	79.12	388.20	79.12	1,233.86	120.08
Ponderosa pine	1,420.65	170.23	19.48	13.88	1,440.13	170.73	87.15	46.99	--	--	87.15	46.99	1,527.28	175.71
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	230.74	54.31	1,701.43	138.72	1,932.17	145.67	--	--	10.49	11.32	10.49	11.32	1,942.67	146.10
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	13.05	13.68	63.87	42.59	76.91	44.73	--	--	250.24	84.00	250.24	84.00	327.15	95.17
Total	3,723.16	272.24	2,765.46	182.96	6,488.63	317.82	320.11	113.22	648.94	115.66	969.04	161.47	7,457.67	353.37
Hardwoods:														
Alder / maple	--	--	--	--	--	--	--	--	0.11	0.10	0.11	0.10	0.11	0.10
Aspen / birch	18.71	19.93	52.20	28.70	70.91	34.94	20.14	18.52	0.25	0.25	20.39	18.52	91.30	39.54
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western oak	22.57	13.80	27.56	17.33	50.14	23.96	--	--	--	--	--	--	50.14	23.96
Woodland hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	69.94	35.06	9.84	9.54	79.78	36.33	--	--	--	--	--	--	79.78	36.33
Total	111.22	42.49	89.61	34.68	200.83	55.54	20.14	18.52	0.36	0.27	20.50	18.52	221.33	58.55
Nonstocked	321.50	70.82	136.01	43.68	457.51	82.90	--	--	14.97	16.00	14.97	16.00	472.48	84.43
All forest types	4,155.88	283.18	2,991.08	189.84	7,146.97	329.54	340.25	114.42	664.26	117.62	1,004.51	163.71	8,151.48	364.74

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D69: Forest Floor by Forest Type Group and Forest Land Status, 2010-2019: Klamath Interior Coast Ranges

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	14,024.13	639.33	85.09	55.06	14,109.23	641.86	3,866.49	328.86	21.59	27.12	3,888.08	328.41	17,997.31	706.62
Douglas-fir	1,577.26	189.48	--	--	1,577.26	189.48	653.18	122.75	82.82	42.60	736.00	129.61	2,313.26	223.09
Fir / spruce / mountain hemlock	675.95	147.10	43.13	33.08	719.08	149.82	643.87	139.58	11.93	17.78	655.79	140.46	1,374.87	205.36
Western Hemlock / Sitka spruce	--	--	--	--	--	--	22.76	22.58	--	--	22.76	22.58	22.76	22.58
Lodgepole pine	31.05	22.96	--	--	31.05	22.96	14.52	16.82	19.00	20.19	33.53	26.28	64.57	34.90
Pinyon / juniper	--	--	5.75	6.44	5.75	6.44	--	--	--	--	--	--	5.75	6.44
Ponderosa pine	703.14	133.09	--	--	703.14	133.09	234.79	87.40	28.80	24.46	263.59	89.76	966.73	160.49
Redwood	44.00	33.22	--	--	44.00	33.22	81.57	46.11	--	--	81.57	46.11	125.57	56.83
Western juniper	--	--	36.81	22.81	36.81	22.81	--	--	--	--	--	--	36.81	22.81
Western white pine	63.31	44.93	--	--	63.31	44.93	104.33	47.44	20.04	21.26	124.37	51.02	187.68	67.99
Other western softwoods	62.33	37.35	107.49	45.38	169.82	58.49	9.80	11.22	13.72	15.51	23.52	19.15	193.34	61.54
Total	17,181.18	661.51	278.26	82.12	17,459.44	664.51	5,631.30	350.06	197.91	68.42	5,829.21	353.43	23,288.65	726.69
Hardwoods:														
Alder / maple	289.61	78.23	28.08	18.12	317.70	80.30	78.49	43.09	24.40	21.50	102.89	48.16	420.59	93.63
Aspen / birch	--	--	--	--	--	--	--	--	7.92	11.81	7.92	11.81	7.92	11.81
Elm / ash / cottonwood	--	--	9.20	7.63	9.20	7.63	1.60	1.50	--	--	1.60	1.50	10.80	7.77
Tanoak / laurel	1,501.72	178.39	116.41	52.11	1,618.13	185.33	644.44	116.22	94.87	45.64	739.32	124.08	2,357.44	218.67
Western oak	2,884.94	231.65	3,868.59	223.41	6,753.52	312.95	469.75	99.54	639.99	104.44	1,109.74	142.59	7,863.27	338.21
Woodland hardwoods	--	--	7.34	4.23	7.34	4.23	--	--	6.66	5.08	6.66	5.08	14.00	6.61
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	507.51	116.33	44.51	22.83	552.02	118.55	110.74	51.91	15.60	15.96	126.34	54.31	678.36	130.36
Total	5,183.78	313.93	4,074.14	229.23	9,257.92	378.20	1,305.02	163.53	789.45	117.79	2,094.47	198.05	11,352.39	416.46
Nonstocked	351.51	77.50	31.45	18.26	382.96	79.63	262.38	69.91	32.95	23.62	295.33	73.79	678.29	107.96
All forest types	22,716.47	665.08	4,383.85	243.21	27,100.32	685.17	7,198.70	346.64	1,020.30	137.77	8,219.00	354.06	35,319.32	717.87

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D70: Forest Floor by Forest Type Group and Forest Land Status, 2010-2019: North Coast

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Douglas-fir	2,229.35	223.31	--	--	2,229.35	223.31	314.06	92.34	--	--	314.06	92.34	2,543.41	238.88
Fir / spruce / mountain hemlock	70.01	45.68	--	--	70.01	45.68	--	--	--	--	--	--	70.01	45.68
Western Hemlock / Sitka spruce	226.49	106.62	--	--	226.49	106.62	--	--	--	--	--	--	226.49	106.62
Lodgepole pine	--	--	--	--	--	--	16.22	16.66	1.93	2.12	18.16	16.80	18.16	16.80
Pinyon / juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ponderosa pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redwood	2,178.95	209.74	--	--	2,178.95	209.74	186.06	66.25	--	--	186.06	66.25	2,365.01	218.12
Western juniper	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	17.06	16.20	--	--	17.06	16.20	22.06	20.43	31.77	27.63	53.83	34.36	70.89	37.99
Total	4,721.87	303.47	--	--	4,721.87	303.47	538.40	112.66	33.70	27.71	572.10	116.38	5,293.97	319.27
Hardwoods:														
Alder / maple	250.30	68.69	2.04	2.05	252.33	68.70	35.85	27.15	--	--	35.85	27.15	288.18	73.87
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tanoak / laurel	2,920.21	244.20	141.03	58.57	3,061.24	248.49	393.96	95.51	80.84	45.66	474.80	105.81	3,536.04	268.60
Western oak	474.75	93.64	353.63	63.87	828.37	113.02	--	--	49.78	27.46	49.78	27.46	878.15	116.46
Woodland hardwoods	--	--	--	--	--	--	--	--	2.86	3.10	2.86	3.10	2.86	3.10
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	233.24	76.43	5.67	5.80	238.91	76.65	68.88	50.62	--	--	68.88	50.62	307.79	91.76
Total	3,878.49	273.75	502.37	87.04	4,380.85	284.00	498.69	107.09	133.48	53.37	632.16	119.32	5,013.02	306.40
Nonstocked	45.11	26.41	--	--	45.11	26.41	--	--	--	--	--	--	45.11	26.41
All forest types	8,645.47	355.80	502.37	87.04	9,147.84	361.85	1,037.09	140.28	167.18	60.14	1,204.27	152.64	10,352.10	380.34

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D71: Forest Floor by Forest Type Group and Forest Land Status, 2010-2019: Sierra Cascades

Forest type group	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
<i>thousand metric tons C</i>														
Softwoods:														
California mixed conifer	28,643.02	911.50	37.54	36.26	28,680.55	911.61	5,911.13	474.60	34.24	44.29	5,945.38	475.81	34,625.93	1,011.85
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	7,574.40	508.40	68.97	48.79	7,643.37	510.87	2,442.14	316.42	241.99	98.97	2,684.13	329.26	10,327.50	606.06
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	1,180.17	190.32	174.87	78.59	1,355.04	202.36	2,336.30	268.89	880.86	171.18	3,217.16	303.40	4,572.20	363.96
Pinyon / juniper	12.02	10.85	339.38	65.91	351.41	66.80	16.39	15.89	344.56	76.36	360.96	77.62	712.36	101.64
Ponderosa pine	6,845.30	408.53	92.47	45.71	6,937.76	410.87	520.23	115.92	57.87	35.67	578.10	120.57	7,515.86	427.88
Redwood	12.15	10.96	--	--	12.15	10.96	--	--	--	--	--	--	12.15	10.96
Western juniper	243.83	69.89	626.47	95.48	870.30	118.12	370.97	102.42	93.07	45.17	464.05	110.55	1,334.35	161.63
Western white pine	47.98	32.42	--	--	47.98	32.42	325.07	114.17	167.88	73.43	492.95	134.98	540.93	138.82
Other western softwoods	106.46	46.83	114.83	50.57	221.29	67.64	203.11	81.38	1,158.82	172.97	1,361.93	187.54	1,583.22	199.37
Total	44,665.33	891.85	1,454.53	165.25	46,119.86	894.50	12,125.35	534.48	2,979.31	276.67	15,104.66	550.45	61,224.51	1,015.38
Hardwoods:														
Alder / maple	41.21	29.08	--	--	41.21	29.08	--	--	--	--	--	--	41.21	29.08
Aspen / birch	28.51	23.73	10.44	7.98	38.95	25.03	32.23	23.86	42.76	29.19	74.99	37.70	113.94	45.25
Elm / ash / cottonwood	--	--	19.77	16.58	19.77	16.58	--	--	--	--	--	--	19.77	16.58
Tanoak / laurel	262.40	84.65	83.57	37.88	345.97	92.74	--	--	--	--	--	--	345.97	92.74
Western oak	2,707.51	226.19	5,214.05	234.97	7,921.56	310.29	345.21	83.21	486.72	85.05	831.93	118.29	8,753.49	328.54
Woodland hardwoods	--	--	27.81	17.36	27.81	17.36	--	--	--	--	--	--	27.81	17.36
Exotic hardwoods	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other hardwoods	339.02	85.28	263.77	63.89	602.79	106.37	--	--	24.84	18.49	24.84	18.49	627.64	107.88
Total	3,378.65	256.17	5,619.42	243.48	8,998.07	337.34	377.44	86.31	554.33	91.80	931.77	125.35	9,929.83	355.99
Nonstocked	970.10	117.99	85.42	30.18	1,055.52	121.15	235.32	57.42	92.02	34.05	327.34	66.22	1,382.87	138.00
All forest types	49,014.08	867.30	7,159.36	292.70	56,173.44	874.07	12,738.11	525.30	3,625.66	291.37	16,363.77	540.44	72,537.21	984.33

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table D72: Forest Floor by Forest Type Group and Forest Land Status, 2010-2019: South Coast Mountains and Deserts

Forest type group	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
	<i>thousand metric tons C</i>													
Softwoods:														
California mixed conifer	196.20	87.60	--	--	196.20	87.60	263.46	108.39	--	--	263.46	108.39	459.66	139.36
Douglas-fir	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fir / spruce / mountain hemlock	65.45	68.72	--	--	65.45	68.72	--	--	--	--	--	--	65.45	68.72
Western Hemlock / Sitka spruce	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lodgepole pine	--	--	--	--	--	--	--	--	90.35	52.27	90.35	52.27	90.35	52.27
Pinyon / juniper	--	--	304.77	47.41	304.77	47.41	--	--	186.04	38.91	186.04	38.91	490.81	61.29
Ponderosa pine	57.58	42.28	--	--	57.58	42.28	143.47	60.97	15.46	16.41	158.93	63.14	216.51	75.99
Redwood	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Western juniper	46.84	32.83	24.42	22.91	71.25	38.95	--	--	--	--	--	--	71.25	38.95
Western white pine	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Other western softwoods	--	--	--	--	--	--	21.08	20.50	4.11	4.12	25.20	20.91	25.20	20.91
Total	366.06	120.62	329.18	52.65	695.25	129.79	428.01	125.38	295.96	66.44	723.97	141.90	1,419.22	191.89
Hardwoods:														
Alder / maple	--	--	17.01	15.62	17.01	15.62	--	--	--	--	--	--	17.01	15.62
Aspen / birch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elm / ash / cottonwood	--	--	0.11	0.10	0.11	0.10	--	--	14.58	14.14	14.58	14.14	14.68	14.14
Tanoak / laurel	--	--	--	--	--	--	--	--	30.02	26.11	30.02	26.11	30.02	26.11
Western oak	159.43	53.55	687.49	94.03	846.92	108.34	101.43	41.65	183.69	48.06	285.12	62.34	1,132.04	124.58
Woodland hardwoods	--	--	127.74	36.69	127.74	36.69	--	--	36.08	21.73	36.08	21.73	163.83	42.63
Exotic hardwoods	4.33	4.36	--	--	4.33	4.36	--	--	--	--	--	--	4.33	4.36
Other hardwoods	--	--	47.33	27.40	47.33	27.40	--	--	--	--	--	--	47.33	27.40
Total	163.76	53.73	879.68	104.45	1,043.44	117.55	101.43	41.65	264.37	60.34	365.80	72.24	1,409.24	137.37
Nonstocked	48.95	24.99	44.11	19.88	93.06	31.62	39.07	19.46	20.00	9.84	59.07	21.81	152.13	38.40
All forest types	578.77	128.59	1,252.98	116.42	1,831.75	167.33	568.51	130.70	580.33	89.29	1,148.85	155.95	2,980.60	227.03

Note: Totals may be off because of rounding

Timberland and Productive: Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Other forest: Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table E1: Annual change in forest land area to/from other IPCC landuse classes in California, 2001-2009 to 2011-2019.

	Timberland¹		Other forest²		Reserved		All forest land	
	Total	SE	Total	SE	Total	SE	Total	SE
	<i>Acres per year</i>							
Forest to nonforest:								
Cropland	651	589	3,058	1,652			3,709	1,749
Developed	7,952	1,843	4,522	1,208	451	248	12,924	2,214
Grassland	1,891	1,450	10,778	3,411	449	480	13,118	3,735
Other	26	25			7	7	33	26
Water	516	374	107	70	107	102	730	394
Total	11,036	2,439	18,465	3,977	1,014	550	30,515	4,689
Nonforest to forest:								
Cropland	161	96					161	96
Developed	3,773	855	784	273	32	26	4,589	898
Grassland	3,320	1,135	3,627	1,250	179	103	7,126	1,691
Other			67	97			67	97
Water	12	14	235	203			248	204
Total	7,267	1,421	4,713	1,299	212	106	12,191	1,928
Net change to forest land:								
Cropland	-489	596	-3,058	1,652			-3,548	1,751
Developed	-4,179	2,030	-3,738	1,230	-418	249	-8,335	2,388
Grassland	1,428	1,842	-7,151	3,632	-270	491	-5,992	4,100
Other	-26	25	67	97	-7	7	34	101
Water	-504	374	128	215	-107	102	-483	444
Total	-3,769	2,824	-13,752	4,181	-803	560	-18,324	5,072

Note: Totals may be off because of rounding

¹ Forest land that is capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

² Forest land that is not capable of producing in excess of 20 cubic feet per acre per year of wood at culmination of mean annual increment.

Table E2: Annual change in carbon pools due to change in land use between forest and nonforest in California, 2001-2009 to 2011-2019

	Forest to nonforest		Nonforest to forest		Net change	
	Total	SE	Total	SE	Total	SE
Carbon pool	<i>Thousand metric tons CO2 equivalent per year</i>					
Live tree	-1,505	231	1,074	185	-430	297
Standing dead	-148	83	38	9	-110	84
Down wood	-181	40	85	27	-96	48
Understory veg	-253	33	139	23	-114	40
Litter	-378	57	173	25	-205	62
Soil*	-4,083	533	1,764	273	-2,320	599
All pools	-2,465	330	1,509	229	-956	403

* No changes in landuse involved cultivated land so soil organic carbon change was assumed to be zero (Ogle et al. 2003)

Table F1 - Annual Net Emissions of Non-CO2 Greenhouse Gases from Fire, 2001-2009 to 2011-2019: All California

	Public						Private						Total	
	National Forest		Other Federal		State and local govt.		Corporate		Non Corporate		Total			
	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE	Total	SE
	<i>thousand metric tons CO2 equivalent per year</i>													
Cut and Fire														
CO2	-985	314	--	--	-65	68	-1,242	426	-61	45	-1,302	428	-2,352	535
CH4	-32	10	--	--	-2	2	-40	14	-2	1	-42	14	-75	17
N2O	-21	7	--	--	-1	1	-26	9	-1	1	-27	9	-50	11
Fire														
CO2	-6,623	790	-1,225	394	-136	88	-258	124	-143	102	-401	160	-8,385	901
CH4	-212	25	-39	13	-4	3	-8	4	-5	3	-13	5	-268	29
N2O	-140	17	-26	8	-3	2	-5	3	-3	2	-8	3	-177	19
Total Fire														
CO2	-7,608	847	-1,225	394	-201	108	-1,499	438	-204	125	-1,703	455	-10,737	1,056
CH4	-244	27	-39	13	-6	3	-48	14	-7	4	-55	15	-344	34
N2O	-161	18	-26	8	-4	2	-32	9	-4	3	-36	10	-227	22

Appendix 3: Harvested wood product carbon model inputs; calculations

MONTE CARLO SIMULATION METHODS

Simulation Specifications

The goal of the MC simulation was to produce estimates and confidence intervals for overall values for SWDS, PIU, EWOEC, EEC, and their combinations. To achieve this goal the Monte Carlo (MC) simulation directly alters 16 different parameters, listed in Table 3.8a below. The previous version of the model altered 17 variables, but the “Discarded material burned with energy capture” variable was omitted at this time as there were no products subject to this fate in this analysis. Future iterations of this model will include this parameter in the MC analysis. The columns Min Value, Peak Value, and Max Value describe the desired 90% confidence interval for the range of random proportions against which the parameters of interest were adjusted. Parameters for harvest, timber product ratios and primary product ratios each have a set of three confidence intervals based on the years for which the estimates were provided. These parameters require a separate MC random variable for each year set. Finally, parameters for timber, product, and end use product ratios have a sum-to-one characteristic. For instance, timber product ratios (TPRs) represent the proportion of total harvest for a given year that is allocated to each of the 40 timber products. While the proportions change during the time series the full set of 40 TPR proportions will always sum to one.

Table 3.8a. Monte Carlo simulation target parameters and ranges.

Parameter ID	Parameter Name	First Year	Last Year	Min Value	Peak Value	Max Value	Sum-to-One
0	CCF to MgC conversion factors	n/a	n/a	0.95	1	1.05	No
1	Harvest	1906	1945	0.7	1	1.3	No
1	Harvest	1946	1979	0.8	1	1.2	No
1	Harvest	1980	2100	0.85	1	1.15	No
2	Timber product ratios	1906	1945	0.7	1	1.3	Yes
2	Timber product ratios	1946	1979	0.8	1	1.2	Yes
2	Timber product ratios	1980	2100	0.85	1	1.15	Yes
3	Primary product ratios	1906	1949	0.7	1	1.3	Yes
3	Primary product ratios	1950	1979	0.8	1	1.2	Yes
3	Primary product ratios	1980	2100	0.85	1	1.15	Yes
4	End use product ratios	n/a	n/a	0.85	1	1.15	Yes
5	Product half lives	n/a	n/a	0.85	1	1.15	No
6	Discarded disposition ratios (paper)	n/a	n/a	0.85	1	1.15	Yes
7	Discarded disposition ratios (wood)	n/a	n/a	0.85	1	1.15	Yes
8	Landfill decay limits (paper)	n/a	n/a	0.85	1	1.15	No
9	Landfill decay limits (wood)	n/a	n/a	0.85	1	1.15	No
10	Landfill half lives (paper)	n/a	n/a	0.85	1	1.15	No

11	Landfill half lives (wood)	n/a	n/a	0.85	1	1.15	No
12	Dump half lives (paper)	n/a	n/a	0.85	1	1.15	No
13	Dump half lives (wood)	n/a	n/a	0.85	1	1.15	No
14	Recovered half lives (paper)	n/a	n/a	0.85	1	1.15	No
15	Recovered half lives (wood)	n/a	n/a	0.85	1	1.15	No
*16	Discards burned with energy capture ratio	n/a	n/a	0.85	1	1.15	N/A

*Discards burned with energy capture was not incorporated into this iteration of the MC analysis as there were no products subject to this fate at this time. Future iterations of the model will include this parameter in MC analysis.

Simulation Sampling

As in other HWP publications such as Stockmann et al. (2012) and Anderson et al. (2013), the random variables in the Monte Carlo simulations are drawn from triangular distributions. The distributions all have a peak value of 1.0 (Table 3.8a) and symmetrically taper to given 90% confidence interval bounds. The values from the triangular distribution are used as proportions for adjusting parameter values.

Drawing random variables from triangular distributions is a multi-step process. The first step involves drawing random variables from a standard uniform (0, 1) distribution using a Latin Hypercube Sampling (LHS) process. The standard uniform distribution is an excellent starting place for randomly selecting points along other distributions because random uniform points can be translated as locations along some other distribution's Cumulative Distribution Function (CDF). However, purely random sampling may be inefficient because with unorganized, truly random draws of random uniform variables for more than one distribution there is a strong probability that samples will, by chance, fall in the same local region for several of the 22 distributions. Many iterations are needed to obtain a full suite of the possible MC values across distributions. LHS offers a method for partitioning the uniform distributions across the range of possible values from which the random selections can be drawn, thus preventing clumping. With LHS many fewer iterations are needed to achieve stable estimates from the MC simulation.

The function "randomLHS" in the R package "lhs" was used to conduct a random LHS sample. The lhs package divides the uniform distribution into as many partitions as there are iterations and then randomly selects a value from the range of values within each partition. The order of the selected values was also randomized.

Once the matrix from the LHS (rows = number of iterations, columns = desired number of distributions) has been created the cell values are transformed into draws from triangular distributions (Wikipedia: Triangular Distribution).

$$\text{Triangular Random Variable} = \begin{cases} \text{if } 0 < U < F(c), & a + \sqrt{U(b-a)(c-a)} \\ \text{else,} & b - \sqrt{(1-U)(b-a)(c-a)} \end{cases}$$

In this equation U is the random uniform variable (the LHS draw), $F(c) = (c - a)/(b - a)$, a is the minimum value for the triangular distribution, b is the maximum value, and c is the mode. Note that the specifications require 90% confidence intervals and do not state what the endpoints for the triangular distributions should be. Endpoint values that corresponded with the desired 90% confidence intervals (Table 3.8b) were derived through simulation and trial and error.

Table 3.8b. Translation of 90% Confidence Intervals to endpoints for triangular distributions

90% Confidence Interval Range	Endpoints Used
0.7, 1.3	0.57, 1.43
0.8, 1.2	0.71, 1.29
0.85, 1.15	0.78, 1.22
0.95, 1.05	0.93, 1.07

Each random draw from a triangular distribution was used to adjust an MC parameter for all years in a single iteration. The next iteration would use the subsequent random draw. The only exception occurs when the 90% confidence intervals changed within the year set for an iteration. In those instances (i.e., for Harvest, timber production ratios, and primary production ratios) we simulate random draws for three random variables. For each iteration we use the appropriate random triangular variable draw for the given year set (e.g., 1906 to 1945).

Some random variables should be correlated with one another (e.g., Stockmann et al. 2012). For instance, there are three parameters for Harvest each to account for three changes in confidence interval values during the time series. There is a separate random variable for each of those three sets of years because the intervals are assumed to have been constructed in similar ways and therefore would have been correlated. Therefore, a correlation among the three Harvest variables was created. Timber Product Ratios and End Use Product Ratios each have sets of three correlated variables and pairs of correlated random triangular variables for all paper/wood discard disposition ratios and decay limits were created.

Pearson's correlation of 0.5 were used for all correlations. This value was also used by Anderson et al. (2013) and Stockmann et al. (2012). A Pearson's correlation matrix was created, with the number of columns and rows corresponding to the number of random variables to correlate. For a three-variable correlation the following matrix was used and a Choleski decomposition was created from it:

$$\text{Pearson's Correlation Matrix} = \begin{bmatrix} 1 & 0.5 & 0.5 \\ 0.5 & 1 & 0.5 \\ 0.5 & 0.5 & 1 \end{bmatrix}$$

$$\text{Choleski Decomposition} = \begin{bmatrix} 1 & 0.5 & 0.5 \\ 0 & 0.866 & 0.289 \\ 0 & 0 & 0.816 \end{bmatrix}$$

Linear multiplication of a vector containing the three variables against the Choleski decomposition matrix alters the second and third variables such that they are correlated to the first. The correlated triangular random variables were generated by first transforming an iteration's three LHS random uniform variables into values from a standard normal distribution by treating the random uniform variables as probability quantiles from a standard normal distribution. The three standard normal values are then altered and become correlated by linearly multiplying them by the Choleski decomposition. The values return to those from a standard uniform distribution by finding the cumulative distribution function values of the three (now normally distributed and correlated) random variables. These random values are then ready to be processed as described above into draws from a triangular distribution and remain correlated.

Sampling and the HWP Program

The goal of the MC simulation was to produce estimates and confidence intervals for overall values for SWDS, PIU, EWOEC, EEC, and their combinations. Before entering the MC loop, the program performs all LHS draws, forces correlations among specific variables, and transforms the random draws into draws from triangular distributions.

A description of how each parameter was altered is provided below.

CCF to MgC Conversion Factors

Within a single iteration, one random triangular variable value is multiplied across the CCF to MgC conversion factor values for all years.

Harvest

For Harvest three correlated random variables for every MC iteration was used. Each random variable is used to adjust its corresponding range of years (Table 3.8a). Subsequent iterations use a different draw of three correlated random variables. The matrix of random triangular variables, with years = rows, iterations = columns, is multiplied by a vector of the harvest volume per year. For each iteration in the MC loop a different vector of these altered values is used.

Timber Product Ratios

This parameter is more complicated than Harvest because the values within a year must sum to one. It relies on three correlated random variables which are processed as described above. For each iteration, the code examines all 40 proportion values and determines which one, for a given year, is the maximum value. It finds the product of the random triangular variable value and the maximum proportion. If the resulting value is ≥ 1 then the maximum proportion is set to 1.0 and all of the other 39 values are set to 0.0. If it is < 1 then the code calculates the ratio of $(1 - \text{new maximum proportion}) / (1 - \text{old maximum proportion})$ and multiplies this proportion against all of the remaining proportions. All 40 altered values should sum to 1.0.

The result is that for each year there are 40 altered TPR values. When the MTC variable is calculated for each iteration, the altered values are effectively propagated across all PPR and EUR categories per year. This MC sum-to-one approach does have some substantial drawbacks. For instance, Timber Product Ratio 2 is Softwood Sawtimber. It accounts for 67% to 100% of harvest in a given year. Multiplying the triangular distribution value by Timber Product Ratio 2 frequently results in values that are ≥ 1.0 . Therefore, the alteration of this variable frequently results in the same value, and the distribution of Timber Product Ratio 2 is triangular until the distribution crosses the 1.0 boundary, at which point the remainder of the distribution is stacked at 1.0.

Primary Product Ratios

Three correlated random variables were used to alter PPR for each MC iteration, as was done for TPR. The 64 Primary Product Ratios (PPRs) differ from the TPR values in that they sum to 40, instead of 1, for each year in the time series. However, subsets of PPR ratios sum to 1 but 36 of primary products are not part of a subset of a timber product. The PPRs were altered in the same fashion as TPR values with one difference. The code found, for each PPR set with more than one value, the maximum proportion and then adjusted that proportion with the random triangular parameter value. It adjusted the remainder of the values in the PPR set as described for TPR. If there was only one value in the set, it was always equal to 1.0 and the code never adjusted it. These 1.0 values allowed the TPR value to be carried through PPR. Similarly, if the maximum ratio in a set was already 1.0, no alteration occurred. These values are propagated across all EUR categories per year so that they may be multiplied against other values in the eu_ratio matrix to create the altered MTC values.

End Use Product Ratios

End Use Product ratios were altered as described for PPRs. One difference is that the EUR alterations only used one random triangular variable value for all years in an iteration (i.e., not three correlated variables) because the triangular distribution confidence intervals were held

constant across years. EUR values for a given year summed to 64. The code therefore examined sets of EUR values for each PPR category.

Product Half Lives

There are 224 half-life values, one per EUR and the same random triangular random variable value was multiplied by all 224 values per iteration. Each iteration of the MC loop used a different vector of those 224 values in the decay function that is used to determine PIU over time.

Decay and Half-Life Limits for Landfills, Dumps, and Recovered Pools

Description of these parameters is combined because they relied on the same process. Each one has two correlated random triangular variables, for paper and wood. A function inputs the original 224 ratios for each, where most of the 224 ratios are for wood and a few are for paper. The function also obtains the two vectors of correlated random variables. Each iteration has a single random variable value multiplied by the paper ratio and another for the wood ratio. The altered vectors are then combined into a matrix. When the MC loop runs, each iteration obtains a differently altered vector of 224 values to enter into the decay function.

Discarded Disposition Ratios for Wood and Paper

These ratios control what fraction of waste ends up as burned, burned with energy capture, recycled, composted, placed in a landfill, or sent to a dump (the six fates). The values can differ by year and a function was created that operated on the ratios for wood and paper separately. The function performed the sum-to-one approach on the six ratios for either wood or paper.

Table 3.1: California Harvest Data, 1952-2019 (mbf)

Year	Private	USFS	BLM	State & Other Public	Tribal	All Owners
2019	1,374,543	281,044	960	12,783	1,500	1,670,830
2018	1,383,746	315,564	553	23,094	2,000	1,724,957
2017	1,363,244	309,533	470	22,434	0	1,695,681
2016	1,283,000	336,000	0	61,820	6,556	1,687,376
2015	1,386,000	288,000	1,568	18,620	9,000	1,703,188
2014	1,231,000	235,000	50	16,470	11,917	1,494,437
2013	1,423,000	303,000	2,000	30,173	8,860	1,767,033
2012	1,157,000	247,000	600	24,580	8,000	1,437,180
2011	1,130,000	300,490	3,000	19,780	11,371	1,464,641
2010	1,025,000	265,000	2,000	1,000	9,764	1,302,764
2009	745,000	163,000	2,190	1,000	3,905	915,095
2008	1,273,000	205,000	5,000	1,000	13,513	1,497,513
2007	1,439,000	308,000	9,000	1,000	19,300	1,776,300
2006	1,430,000	338,000	0	1,000	5,600	1,774,600
2005	1,496,000	381,000	890	1,000	10,564	1,889,454
2004	1,593,000	264,000	705	1,000	16,582	1,875,287
2003	1,509,000	284,000	859	1,000	17,854	1,812,713
2002	1,521,000	299,000	1,134	4,000	13,619	1,838,753
2001	1,476,000	262,000	800	3,000	10,000	1,751,800
2000	1,701,000	368,000	8,000	16,000	19,000	2,112,000
1999	1,903,000	433,000	1,000	26,000	15,000	2,378,000
1998	1,836,000	453,000	1,000	30,000	16,000	2,336,000
1997	2,042,000	548,000	5,000	48,000	15,000	2,658,000
1996	1,985,000	458,000	12,000	55,000	13,000	2,523,000
1995	1,929,000	544,000	6,000	40,000	16,000	2,535,000
1994	1,980,000	808,000	19,000	17,000	15,000	2,839,000
1993	2,263,000	739,000	8,000	34,000	13,000	3,057,000
1992	2,124,000	1,026,000	9,000	23,000	32,000	3,214,000
1991	2,065,000	1,336,000	11,000	38,000	24,000	3,474,000
1990	2,673,000	1,530,000	10,000	24,000	14,000	4,251,000
1989	2,638,000	2,024,000	12,000	37,000	11,000	4,722,000
1988	2,598,000	2,181,000	16,000	31,000	14,000	4,840,000
1987	2,582,000	1,969,000	15,000	42,000	41,000	4,649,000
1986	2,313,000	1,963,000	27,000	29,000	27,000	4,359,000
1985	2,172,000	1,826,000	17,000	36,000	5,000	4,056,000
1984	2,093,000	1,559,000	7,000	34,000	21,000	3,714,000
1983	1,890,000	1,676,000	25,000	43,000	14,000	3,648,000
1982	1,501,000	937,000	9,000	42,000	8,000	2,497,000
1981	1,722,000	1,093,000	7,000	15,000	22,000	2,859,000
1980	1,863,000	1,508,000	8,000	20,000	42,000	3,441,000
1979	2,265,000	1,727,000	18,000	26,000	48,000	4,084,000
1978	2,783,000	1,798,000	8,000	28,000	47,000	4,664,000
1977	2,964,000	1,738,000	19,000	28,000	38,000	4,787,000
1976	2,757,000	1,890,000	6,000	40,000	38,000	4,731,000
1975	2,712,000	1,523,000	46,000	35,000	18,000	4,334,000

Table 3.1: California Harvest Data, 1952-2019 (mbf)

Year	Private	USFS	BLM	State & Other Public	Tribal	All Owners
1974	2,862,000	1,735,000	16,000	40,000	51,000	4,704,000
1973	2,813,000	2,014,000	12,000	33,000	51,000	4,923,000
1972	3,220,000	2,215,000	19,000	37,000	66,000	5,557,000
1971	2,594,000	2,063,000	24,000	39,000	70,000	4,790,000
1970	2,624,000	1,841,000	39,000	34,000	28,000	4,566,000
1969	2,879,000	2,001,000	27,000	40,000	54,000	5,001,000
1968	2,945,000	2,364,000	36,000	48,000	79,000	5,472,000
1967	3,057,000	1,895,000	34,000	35,000	41,000	5,062,000
1966	2,967,000	1,931,000	33,000	32,000	45,000	5,008,000
1965	3,215,000	1,917,000	55,000	31,000	53,000	5,271,000
1964	3,504,000	1,864,000	34,000	25,000	49,000	5,476,000
1963	3,688,000	1,661,000	36,000	22,000	54,000	5,461,000
1962	4,053,000	1,376,000	29,000	34,000	47,000	5,539,000
1961	3,847,000	1,378,000	33,000	29,000	55,000	5,342,000
1960	3,699,000	1,330,000	32,000	28,000	48,000	5,137,000
1959	4,293,000	1,475,000	41,000	27,000	50,000	5,886,000
1958	4,470,000	1,114,000	23,000	30,000	38,000	5,675,000
1957	4,356,000	918,000	10,000	27,000	36,000	5,347,000
1956	4,687,000	1,096,000	26,000	24,000	29,000	5,862,000
1955	4,928,000	1,027,000	13,000	14,000	33,000	6,015,000
1954	4,789,000	757,000	13,000	16,000	25,000	5,600,000
1953	5,317,000	633,000	7,000	18,000	15,000	5,990,000
1952	4,398,000	613,000	6,000	14,000	26,000	5,057,000

Table 3.2: California Timber Product Ratios, 1952-2019

Timber

Product	TPO		1955	1954	1953	1952
ID	Code	Timber Description				
1	01	hardwood, sawtimber	0.0025	0.0025	0.0025	0.0025
2	01	softwood, sawtimber	0.9960	0.9960	0.9960	0.9960
3	02	hardwood, pulpwood	0.0000	0.0000	0.0000	0.0000
4	02	softwood, pulpwood	0.0009	0.0009	0.0009	0.0009
5	03	hardwood, poles	0.0000	0.0000	0.0000	0.0000
6	03	softwood, poles	0.0000	0.0000	0.0000	0.0000
7	04	hardwood, pilings	0.0000	0.0000	0.0000	0.0000
8	04	softwood, pilings	0.0000	0.0000	0.0000	0.0000
9	05	hardwood, mine props	0.0000	0.0000	0.0000	0.0000
10	05	softwood, mine props	0.0000	0.0000	0.0000	0.0000
11	06	hardwood, posts	0.0000	0.0000	0.0000	0.0000
12	06	softwood, posts	0.0000	0.0000	0.0000	0.0000
13	07	hardwood, fuelwood	0.0000	0.0000	0.0000	0.0000
14	07	softwood, fuelwood	0.0000	0.0000	0.0000	0.0000
15	08	hardwood, non-sawtimber	0.0000	0.0000	0.0000	0.0000
16	08	softwood, non-sawtimber	0.0000	0.0000	0.0000	0.0000
17	09	hardwood, ties	0.0000	0.0000	0.0000	0.0000
18	09	softwood, ties	0.0000	0.0000	0.0000	0.0000
19	10	hardwood, coop bolts	0.0000	0.0000	0.0000	0.0000
20	10	softwood, coop bolts	0.0000	0.0000	0.0000	0.0000
21	11	hardwood, acid/dist.	0.0000	0.0000	0.0000	0.0000
22	11	softwood, acid/dist.	0.0000	0.0000	0.0000	0.0000
23	12	hardwood, float logs	0.0000	0.0000	0.0000	0.0000
24	12	softwood, float logs	0.0000	0.0000	0.0000	0.0000
25	13	hardwood, trap float	0.0000	0.0000	0.0000	0.0000
26	13	softwood, trap float	0.0000	0.0000	0.0000	0.0000
27	14	hardwood, misc-conv.	0.0000	0.0000	0.0000	0.0000
28	14	softwood, misc-conv.	0.0006	0.0006	0.0006	0.0006
29	16	hardwood, nav stores	0.0000	0.0000	0.0000	0.0000
30	16	softwood, nav stores	0.0000	0.0000	0.0000	0.0000
31	18	hardwood, cull logs	0.0000	0.0000	0.0000	0.0000
32	18	softwood, cull logs	0.0000	0.0000	0.0000	0.0000
33	19	hardwood, sm rnd wd	0.0000	0.0000	0.0000	0.0000
34	19	softwood, sm rnd wd	0.0000	0.0000	0.0000	0.0000
35	20	hardwood, grn bio cv	0.0000	0.0000	0.0000	0.0000
36	20	softwood, grn bio cv	0.0000	0.0000	0.0000	0.0000
37	21	hardwood, dry bio cv	0.0000	0.0000	0.0000	0.0000
38	21	softwood, dry bio cv	0.0000	0.0000	0.0000	0.0000
39	26	hardwood, sp wood pr	0.0000	0.0000	0.0000	0.0000
40	26	softwood, sp wood pr	0.0000	0.0000	0.0000	0.0000

Table 3.4: End-use Product Ratios – refer to CA_HWP_C_end-use_ratios.xlsx

Table 3.5: Product end-use half-lives

End Use				End Use Half Life (yrs)
ID	Timber Product	Primary Product	End Use Product	
1	hardwood, sawtimber	fuelwood and other	fuelwood and other	0
2	hardwood, sawtimber	lumber	manufacturing, other manufacturing	12
3	hardwood, sawtimber	lumber	rail and railcar, n/a	12
4	hardwood, sawtimber	lumber	packaging and shipping, n/a	6
5	hardwood, sawtimber	lumber	manufacturing, furniture	30
6	hardwood, sawtimber	lumber	other, n/a	12
7	hardwood, sawtimber	lumber	new nonresidential, other	67
8	hardwood, sawtimber	lumber	new nonresidential, new nonres buildings	67
9	hardwood, sawtimber	lumber	residential r and r, n/a	30
10	hardwood, sawtimber	lumber	new housing, manufactured housing	12
11	hardwood, sawtimber	lumber	new housing, single family	100
12	hardwood, sawtimber	lumber	new housing, multifamily	70
13	hardwood, sawtimber	non-structural panels	manufacturing, other manufacturing	12
14	hardwood, sawtimber	non-structural panels	new housing, multifamily	70
15	hardwood, sawtimber	non-structural panels	new housing, single family	100
16	hardwood, sawtimber	non-structural panels	residential r and r, n/a	30
17	hardwood, sawtimber	non-structural panels	new nonresidential, new nonres buildings	67
18	hardwood, sawtimber	non-structural panels	new nonresidential, other	67
19	hardwood, sawtimber	non-structural panels	rail and railcar, n/a	12
20	hardwood, sawtimber	non-structural panels	manufacturing, furniture	30
21	hardwood, sawtimber	non-structural panels	new housing, manufactured housing	12
22	hardwood, sawtimber	non-structural panels	packaging and shipping, n/a	6
23	hardwood, sawtimber	non-structural panels	other, n/a	12
24	hardwood, sawtimber	oriented strandboard (OSB)	new housing, multifamily	70
25	hardwood, sawtimber	oriented strandboard (OSB)	rail and railcar, n/a	12
26	hardwood, sawtimber	oriented strandboard (OSB)	new housing, single family	100
27	hardwood, sawtimber	oriented strandboard (OSB)	new housing, manufactured housing	12
28	hardwood, sawtimber	oriented strandboard (OSB)	manufacturing, furniture	30
29	hardwood, sawtimber	oriented strandboard (OSB)	new nonresidential, new nonres buildings	67
30	hardwood, sawtimber	oriented strandboard (OSB)	manufacturing, other manufacturing	12
31	hardwood, sawtimber	oriented strandboard (OSB)	packaging and shipping, n/a	6
32	hardwood, sawtimber	oriented strandboard (OSB)	other, n/a	12
33	hardwood, sawtimber	oriented strandboard (OSB)	residential r and r, n/a	30
34	hardwood, sawtimber	oriented strandboard (OSB)	new nonresidential, other	67
35	hardwood, sawtimber	other industrial products	other industrial products	12
36	hardwood, sawtimber	plywood	new housing, manufactured housing	12
37	hardwood, sawtimber	plywood	new housing, multifamily	70
38	hardwood, sawtimber	plywood	residential r and r, n/a	30
39	hardwood, sawtimber	plywood	new nonresidential, new nonres buildings	67
40	hardwood, sawtimber	plywood	new nonresidential, other	67
41	hardwood, sawtimber	plywood	rail and railcar, n/a	12
42	hardwood, sawtimber	plywood	manufacturing, furniture	30
43	hardwood, sawtimber	plywood	manufacturing, other manufacturing	12
44	hardwood, sawtimber	plywood	packaging and shipping, n/a	6
45	hardwood, sawtimber	plywood	other, n/a	12
46	hardwood, sawtimber	plywood	new housing, single family	100
47	hardwood, sawtimber	wood pulp	wood pulp	2.6
48	softwood, sawtimber	fuelwood and other	fuelwood and other	0

Table 3.5: Product end-use half-lives

End Use				End Use Half Life (yrs)
ID	Timber Product	Primary Product	End Use Product	
49	softwood, sawtimber	lumber	residential r and r, n/a	30
50	softwood, sawtimber	lumber	packaging and shipping, n/a	6
51	softwood, sawtimber	lumber	manufacturing, other manufacturing	12
52	softwood, sawtimber	lumber	manufacturing, furniture	30
53	softwood, sawtimber	lumber	rail and railcar, n/a	12
54	softwood, sawtimber	lumber	new nonresidential, new nonres buildings	67
55	softwood, sawtimber	lumber	other, n/a	12
56	softwood, sawtimber	lumber	new housing, multifamily	70
57	softwood, sawtimber	lumber	new housing, manufactured housing	12
58	softwood, sawtimber	lumber	new housing, single family	100
59	softwood, sawtimber	lumber	new nonresidential, other	67
60	softwood, sawtimber	non-structural panels	manufacturing, other manufacturing	12
61	softwood, sawtimber	non-structural panels	other, n/a	12
62	softwood, sawtimber	non-structural panels	new housing, single family	100
63	softwood, sawtimber	non-structural panels	rail and railcar, n/a	12
64	softwood, sawtimber	non-structural panels	packaging and shipping, n/a	6
65	softwood, sawtimber	non-structural panels	new housing, manufactured housing	12
66	softwood, sawtimber	non-structural panels	residential r and r, n/a	30
67	softwood, sawtimber	non-structural panels	new nonresidential, other	67
68	softwood, sawtimber	non-structural panels	manufacturing, furniture	30
69	softwood, sawtimber	non-structural panels	new housing, multifamily	70
70	softwood, sawtimber	non-structural panels	new nonresidential, new nonres buildings	67
71	softwood, sawtimber	oriented strandboard (OSB)	rail and railcar, n/a	12
72	softwood, sawtimber	oriented strandboard (OSB)	new nonresidential, other	67
73	softwood, sawtimber	oriented strandboard (OSB)	new housing, manufactured housing	12
74	softwood, sawtimber	oriented strandboard (OSB)	residential r and r, n/a	30
75	softwood, sawtimber	oriented strandboard (OSB)	new nonresidential, new nonres buildings	67
76	softwood, sawtimber	oriented strandboard (OSB)	other, n/a	12
77	softwood, sawtimber	oriented strandboard (OSB)	packaging and shipping, n/a	6
78	softwood, sawtimber	oriented strandboard (OSB)	new housing, multifamily	70
79	softwood, sawtimber	oriented strandboard (OSB)	new housing, single family	100
80	softwood, sawtimber	oriented strandboard (OSB)	manufacturing, other manufacturing	12
81	softwood, sawtimber	oriented strandboard (OSB)	manufacturing, furniture	30
82	softwood, sawtimber	other industrial products	other industrial products	12
83	softwood, sawtimber	plywood	residential r and r, n/a	30
84	softwood, sawtimber	plywood	manufacturing, furniture	30
85	softwood, sawtimber	plywood	new housing, single family	100
86	softwood, sawtimber	plywood	new housing, multifamily	70
87	softwood, sawtimber	plywood	manufacturing, other manufacturing	12
88	softwood, sawtimber	plywood	other, n/a	12
89	softwood, sawtimber	plywood	rail and railcar, n/a	12
90	softwood, sawtimber	plywood	new nonresidential, new nonres buildings	67
91	softwood, sawtimber	plywood	new housing, manufactured housing	12
92	softwood, sawtimber	plywood	packaging and shipping, n/a	6
93	softwood, sawtimber	plywood	new nonresidential, other	67
94	softwood, sawtimber	wood pulp	wood pulp	2.6
95	hardwood, pulpwood	fuelwood and other	fuelwood and other	0
96	hardwood, pulpwood	lumber	rail and railcar, n/a	12

Table 3.5: Product end-use half-lives

End Use				End Use Half Life (yrs)
ID	Timber Product	Primary Product	End Use Product	
97	hardwood, pulpwood	lumber	packaging and shipping, n/a	6
98	hardwood, pulpwood	lumber	other, n/a	12
99	hardwood, pulpwood	lumber	manufacturing, furniture	30
100	hardwood, pulpwood	lumber	new housing, multifamily	70
101	hardwood, pulpwood	lumber	new nonresidential, other	67
102	hardwood, pulpwood	lumber	new housing, single family	100
103	hardwood, pulpwood	lumber	new nonresidential, new nonres buildings	67
104	hardwood, pulpwood	lumber	new housing, manufactured housing	12
105	hardwood, pulpwood	lumber	residential r and r, n/a	30
106	hardwood, pulpwood	lumber	manufacturing, other manufacturing	12
107	hardwood, pulpwood	non-structural panels	manufacturing, other manufacturing	12
108	hardwood, pulpwood	non-structural panels	new housing, multifamily	70
109	hardwood, pulpwood	non-structural panels	other, n/a	12
110	hardwood, pulpwood	non-structural panels	residential r and r, n/a	30
111	hardwood, pulpwood	non-structural panels	new nonresidential, new nonres buildings	67
112	hardwood, pulpwood	non-structural panels	packaging and shipping, n/a	6
113	hardwood, pulpwood	non-structural panels	new nonresidential, other	67
114	hardwood, pulpwood	non-structural panels	new housing, single family	100
115	hardwood, pulpwood	non-structural panels	new housing, manufactured housing	12
116	hardwood, pulpwood	non-structural panels	manufacturing, furniture	30
117	hardwood, pulpwood	non-structural panels	rail and railcar, n/a	12
118	hardwood, pulpwood	oriented strandboard (OSB)	manufacturing, other manufacturing	12
119	hardwood, pulpwood	oriented strandboard (OSB)	packaging and shipping, n/a	6
120	hardwood, pulpwood	oriented strandboard (OSB)	other, n/a	12
121	hardwood, pulpwood	oriented strandboard (OSB)	manufacturing, furniture	30
122	hardwood, pulpwood	oriented strandboard (OSB)	rail and railcar, n/a	12
123	hardwood, pulpwood	oriented strandboard (OSB)	new nonresidential, new nonres buildings	67
124	hardwood, pulpwood	oriented strandboard (OSB)	new housing, single family	100
125	hardwood, pulpwood	oriented strandboard (OSB)	new housing, manufactured housing	12
126	hardwood, pulpwood	oriented strandboard (OSB)	residential r and r, n/a	30
127	hardwood, pulpwood	oriented strandboard (OSB)	new nonresidential, other	67
128	hardwood, pulpwood	oriented strandboard (OSB)	new housing, multifamily	70
129	hardwood, pulpwood	other industrial products	other industrial products	12
130	hardwood, pulpwood	plywood	residential r and r, n/a	30
131	hardwood, pulpwood	plywood	packaging and shipping, n/a	6
132	hardwood, pulpwood	plywood	new housing, manufactured housing	12
133	hardwood, pulpwood	plywood	new housing, single family	100
134	hardwood, pulpwood	plywood	new housing, multifamily	70
135	hardwood, pulpwood	plywood	other, n/a	12
136	hardwood, pulpwood	plywood	manufacturing, other manufacturing	12
137	hardwood, pulpwood	plywood	rail and railcar, n/a	12
138	hardwood, pulpwood	plywood	new nonresidential, new nonres buildings	67
139	hardwood, pulpwood	plywood	manufacturing, furniture	30
140	hardwood, pulpwood	plywood	new nonresidential, other	67
141	hardwood, pulpwood	wood pulp	wood pulp	2.6
142	softwood, pulpwood	fuelwood and other	fuelwood and other	0
143	softwood, pulpwood	lumber	residential r and r, n/a	30
144	softwood, pulpwood	lumber	manufacturing, furniture	30

Table 3.5: Product end-use half-lives

End Use				End Use Half Life (yrs)
ID	Timber Product	Primary Product	End Use Product	
145	softwood, pulpwood	lumber	new housing, manufactured housing	12
146	softwood, pulpwood	lumber	new housing, multifamily	70
147	softwood, pulpwood	lumber	new nonresidential, new nonres buildings	67
148	softwood, pulpwood	lumber	new nonresidential, other	67
149	softwood, pulpwood	lumber	manufacturing, other manufacturing	12
150	softwood, pulpwood	lumber	packaging and shipping, n/a	6
151	softwood, pulpwood	lumber	other, n/a	12
152	softwood, pulpwood	lumber	new housing, single family	100
153	softwood, pulpwood	lumber	rail and railcar, n/a	12
154	softwood, pulpwood	non-structural panels	new housing, single family	100
155	softwood, pulpwood	non-structural panels	manufacturing, furniture	30
156	softwood, pulpwood	non-structural panels	other, n/a	12
157	softwood, pulpwood	non-structural panels	packaging and shipping, n/a	6
158	softwood, pulpwood	non-structural panels	new nonresidential, new nonres buildings	67
159	softwood, pulpwood	non-structural panels	manufacturing, other manufacturing	12
160	softwood, pulpwood	non-structural panels	new nonresidential, other	67
161	softwood, pulpwood	non-structural panels	residential r and r, n/a	30
162	softwood, pulpwood	non-structural panels	new housing, multifamily	70
163	softwood, pulpwood	non-structural panels	rail and railcar, n/a	12
164	softwood, pulpwood	non-structural panels	new housing, manufactured housing	12
165	softwood, pulpwood	oriented strandboard (OSB)	manufacturing, furniture	30
166	softwood, pulpwood	oriented strandboard (OSB)	manufacturing, other manufacturing	12
167	softwood, pulpwood	oriented strandboard (OSB)	new nonresidential, other	67
168	softwood, pulpwood	oriented strandboard (OSB)	new housing, single family	100
169	softwood, pulpwood	oriented strandboard (OSB)	new housing, multifamily	70
170	softwood, pulpwood	oriented strandboard (OSB)	new housing, manufactured housing	12
171	softwood, pulpwood	oriented strandboard (OSB)	residential r and r, n/a	30
172	softwood, pulpwood	oriented strandboard (OSB)	rail and railcar, n/a	12
173	softwood, pulpwood	oriented strandboard (OSB)	packaging and shipping, n/a	6
174	softwood, pulpwood	oriented strandboard (OSB)	other, n/a	12
175	softwood, pulpwood	oriented strandboard (OSB)	new nonresidential, new nonres buildings	67
176	softwood, pulpwood	other industrial products	other industrial products	12
177	softwood, pulpwood	plywood	rail and railcar, n/a	12
178	softwood, pulpwood	plywood	new nonresidential, other	67
179	softwood, pulpwood	plywood	other, n/a	12
180	softwood, pulpwood	plywood	manufacturing, other manufacturing	12
181	softwood, pulpwood	plywood	new nonresidential, new nonres buildings	67
182	softwood, pulpwood	plywood	packaging and shipping, n/a	6
183	softwood, pulpwood	plywood	new housing, manufactured housing	12
184	softwood, pulpwood	plywood	new housing, multifamily	70
185	softwood, pulpwood	plywood	new housing, single family	100
186	softwood, pulpwood	plywood	manufacturing, furniture	30
187	softwood, pulpwood	plywood	residential r and r, n/a	30
188	softwood, pulpwood	wood pulp	wood pulp	2.6
189	hardwood, poles	hardwood, poles	hardwood, poles	12
190	softwood, poles	softwood, poles	softwood, poles	12
191	hardwood, pilings	hardwood, pilings	hardwood, pilings	12
192	softwood, pilings	softwood, pilings	softwood, pilings	12

Table 3.5: Product end-use half-lives

End Use				End Use Half Life (yrs)
ID	Timber Product	Primary Product	End Use Product	
193	hardwood, mine props	hardwood, mine props	hardwood, mine props	12
194	softwood, mine props	softwood, mine props	softwood, mine props	12
195	hardwood, posts	hardwood, posts	hardwood, posts	12
196	softwood, posts	softwood, posts	softwood, posts	12
197	hardwood, fuelwood	hardwood, fuelwood	hardwood, fuelwood	0
198	softwood, fuelwood	softwood, fuelwood	softwood, fuelwood	0
199	hardwood, non-sawtimber	hardwood, non-sawtimber	hardwood, non-sawtimber	12
200	softwood, non-sawtimber	softwood, non-sawtimber	softwood, non-sawtimber	12
201	hardwood, ties	hardwood, ties	hardwood, ties	12
202	softwood, ties	softwood, ties	softwood, ties	12
203	hardwood, coop bolts	hardwood, coop bolts	hardwood, coop bolts	12
204	softwood, coop bolts	softwood, coop bolts	softwood, coop bolts	12
205	hardwood, acid/dist.	hardwood, acid/dist.	hardwood, acid/dist.	12
206	softwood, acid/dist.	softwood, acid/dist.	softwood, acid/dist.	12
207	hardwood, float logs	hardwood, float logs	hardwood, float logs	12
208	softwood, float logs	softwood, float logs	softwood, float logs	12
209	hardwood, trap float	hardwood, trap float	hardwood, trap float	12
210	softwood, trap float	softwood, trap float	softwood, trap float	12
211	hardwood, misc-conv.	hardwood, misc-conv.	hardwood, misc-conv.	12
212	softwood, misc-conv.	softwood, misc-conv.	softwood, misc-conv.	12
213	hardwood, nav stores	hardwood, nav stores	hardwood, nav stores	12
214	softwood, nav stores	softwood, nav stores	softwood, nav stores	12
215	hardwood, cull logs	hardwood, cull logs	hardwood, cull logs	12
216	softwood, cull logs	softwood, cull logs	softwood, cull logs	12
217	hardwood, sm rnd wd	hardwood, sm rnd wd	hardwood, sm rnd wd	12
218	softwood, sm rnd wd	softwood, sm rnd wd	softwood, sm rnd wd	12
219	hardwood, grn bio cv	hardwood, grn bio cv	hardwood, grn bio cv	12
220	softwood, grn bio cv	softwood, grn bio cv	softwood, grn bio cv	12
221	hardwood, dry bio cv	hardwood, dry bio cv	hardwood, dry bio cv	12
222	softwood, dry bio cv	softwood, dry bio cv	softwood, dry bio cv	12
223	hardwood, sp wood pr	hardwood, sp wood pr	hardwood, sp wood pr	12
224	softwood, sp wood pr	softwood, sp wood pr	softwood, sp wood pr	12

Table 3.6: Discarded disposition ratios, 1952-2019

Disposition ID	Discard Type	Discard Destination	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
1	paper	Burned	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.15	0.15	0.16
2	paper	Recycled	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.49	0.48	0.46	0.46	0.42	0.28
3	paper	Composted	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.02
4	paper	Landfills	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.31	0.32	0.34	0.33	0.37	0.53
5	paper	Dumps	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	wood	Burned	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.15	0.15	0.16
7	wood	Recycled	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.07
8	wood	Composted	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.02
9	wood	Landfills	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.68	0.67	0.67	0.73
10	wood	Dumps	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

Table 3.6: Discarded disposition ratios, 1952-2019

Disposition ID	Discard Type	Discard Destination	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978
1	paper	Burned	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.21	0.21
2	paper	Recycled	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.15	0.15
3	paper	Composted	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0	0	0	0	0	0	0	0	0	0	0	0
4	paper	Landfills	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.21	0.21
5	paper	Dumps	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.43	0.43
6	wood	Burned	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.21	0.21
7	wood	Recycled	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0	0	0	0	0	0	0	0	0	0	0	0
8	wood	Composted	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0	0	0	0	0	0	0	0	0	0	0	0
9	wood	Landfills	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.26	0.26
10	wood	Dumps	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.53	0.53

Table 3.6: Discarded disposition ratios, 1952-2019

Disposition ID	Discard Type	Discard Destination	1977	1976	1975	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952
1	paper	Burned	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
2	paper	Recycled	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0	0	0	0	0	0	0	0
3	paper	Composted	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	paper	Landfills	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
5	paper	Dumps	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63
6	wood	Burned	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
7	wood	Recycled	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	wood	Composted	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	wood	Landfills	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
10	wood	Dumps	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63

Table 3.7: Discarded product half-lives; landfill fixed ratios

Type ID	Discard Type	Landfill Fixed Ratio	Landfill Half Life	Dump Half Life	Recycled Half Life
0	paper	0.44	14.5	8.25	2.6
1	wood	0.77	29	16.5	2.6

Table 3.8: HWP C model distribution parameters for Monte Carlo Analysis

Parameter ID	Parameter Name	First Year	Last Year	Min Value	Peak Value	Max Value	Sum-to-One
0	CCF to MgC conversion factors	n/a	n/a	0.95	1	1.05	No
1	Harvest	1906	1945	0.7	1	1.3	No
1		1946	1979	0.8	1	1.2	No
1		1980	2100	0.85	1	1.15	No
2	Timber product ratios	1906	1945	0.7	1	1.3	Yes
2		1946	1979	0.8	1	1.2	Yes
2		1980	2100	0.85	1	1.15	Yes
3	Primary product ratios	1906	1949	0.7	1	1.3	Yes
3		1950	1979	0.8	1	1.2	Yes
3		1980	2100	0.85	1	1.15	Yes
4	End use product ratios	n/a	n/a	0.85	1	1.15	No
5	Product half lives	n/a	n/a	0.85	1	1.15	Yes
6	Discarded disposition ratios (paper)	n/a	n/a	0.85	1	1.15	Yes
7	Discarded disposition ratios (wood)	n/a	n/a	0.85	1	1.15	No
8	Landfill decay limits (paper)	n/a	n/a	0.85	1	1.15	No
9	Landfill decay limits (wood)	n/a	n/a	0.85	1	1.15	No
10	Landfill half lives (paper)	n/a	n/a	0.85	1	1.15	No
11	Landfill half lives (wood)	n/a	n/a	0.85	1	1.15	No
12	Dump half lives (paper)	n/a	n/a	0.85	1	1.15	No
13	Dump half lives (wood)	n/a	n/a	0.85	1	1.15	No
14	Recovered half lives (paper)	n/a	n/a	0.85	1	1.15	No
15	Recovered half lives (wood)	n/a	n/a	0.85	1	1.15	No
16	Burned with energy capture ratio	n/a	n/a	0.85	1	1.15	N/A

Table 3.9: Primary Product CCF to Metric Tons C conversion

Metric Tons C conversion	Timber Product	Primary Product	Conversion Factor
1	hardwood, sawtimber	fuelwood and other	0.91
2	hardwood, sawtimber	lumber	0.91
3	hardwood, sawtimber	non-structural panels	0.87
4	hardwood, sawtimber	oriented strandboard (OSB)	0.87
5	hardwood, sawtimber	other industrial products	0.91
6	hardwood, sawtimber	plywood	0.91
7	hardwood, sawtimber	wood pulp	0.91
8	softwood, sawtimber	fuelwood and other	0.74
9	softwood, sawtimber	lumber	0.74
10	softwood, sawtimber	non-structural panels	0.71
11	softwood, sawtimber	oriented strandboard (OSB)	0.87
12	softwood, sawtimber	other industrial products	0.74
13	softwood, sawtimber	plywood	0.75
14	softwood, sawtimber	wood pulp	0.74
15	hardwood, pulpwood	fuelwood and other	0.91
16	hardwood, pulpwood	lumber	0.91
17	hardwood, pulpwood	non-structural panels	0.91
18	hardwood, pulpwood	oriented strandboard (OSB)	0.87
19	hardwood, pulpwood	other industrial products	0.91
20	hardwood, pulpwood	plywood	0.91
21	hardwood, pulpwood	wood pulp	0.74
22	softwood, pulpwood	fuelwood and other	0.74
23	softwood, pulpwood	lumber	0.74
24	softwood, pulpwood	non-structural panels	0.71
25	softwood, pulpwood	oriented strandboard (OSB)	0.87
26	softwood, pulpwood	other industrial products	0.74
27	softwood, pulpwood	plywood	0.74
28	softwood, pulpwood	wood pulp	0.74
29	hardwood, poles	hardwood, poles	0.91
30	softwood, poles	softwood, poles	0.74
31	hardwood, pilings	hardwood, pilings	0.91
32	softwood, pilings	softwood, pilings	0.74
33	hardwood, mine props	hardwood, mine props	0.91
34	softwood, mine props	softwood, mine props	0.74
35	hardwood, posts	hardwood, posts	0.91
36	softwood, posts	softwood, posts	0.74
37	hardwood, fuelwood	hardwood, fuelwood	0.91
38	softwood, fuelwood	softwood, fuelwood	0.74
39	hardwood, non-sawtimber	hardwood, non-sawtimber	0.91
40	softwood, non-sawtimber	softwood, non-sawtimber	0.74
41	hardwood, ties	hardwood, ties	0.91
42	softwood, ties	softwood, ties	0.74
43	hardwood, coop bolts	hardwood, coop bolts	0.91
44	softwood, coop bolts	softwood, coop bolts	0.74
45	hardwood, acid/dist.	hardwood, acid/dist.	0.91

Table 3.9: Primary Product CCF to Metric Tons C conversion

Metric			Conversion
Tons C	Timber Product	Primary Product	Factor
conversion			
46	softwood, acid/dist.	softwood, acid/dist.	0.74
47	hardwood, float logs	hardwood, float logs	0.91
48	softwood, float logs	softwood, float logs	0.74
49	hardwood, trap float	hardwood, trap float	0.91
50	softwood, trap float	softwood, trap float	0.74
51	hardwood, misc-conv.	hardwood, misc-conv.	0.91
52	softwood, misc-conv.	softwood, misc-conv.	0.74
53	hardwood, nav stores	hardwood, nav stores	0.91
54	softwood, nav stores	softwood, nav stores	0.74
55	hardwood, cull logs	hardwood, cull logs	0.91
56	softwood, cull logs	softwood, cull logs	0.74
57	hardwood, sm rnd wd	hardwood, sm rnd wd	0.91
58	softwood, sm rnd wd	softwood, sm rnd wd	0.74
59	hardwood, grn bio cv	hardwood, grn bio cv	0.91
60	softwood, grn bio cv	softwood, grn bio cv	0.74
61	hardwood, dry bio cv	hardwood, dry bio cv	0.91
62	softwood, dry bio cv	softwood, dry bio cv	0.74
63	hardwood, sp wood pr	hardwood, sp wood pr	0.91
64	softwood, sp wood pr	softwood, sp wood pr	0.74

Table 3.10: This table shows primary products for each timber product.

Timber Product ID	Timber Product	Primary Product ID	Primary Product
1	hardwood, sawtimber	1	fuelwood and other
1	hardwood, sawtimber	2	lumber
1	hardwood, sawtimber	3	non-structural panels
1	hardwood, sawtimber	4	oriented strandboard (OSB)
1	hardwood, sawtimber	5	other industrial products
1	hardwood, sawtimber	6	plywood
1	hardwood, sawtimber	7	wood pulp
2	softwood, sawtimber	8	fuelwood and other
2	softwood, sawtimber	9	lumber
2	softwood, sawtimber	10	non-structural panels
2	softwood, sawtimber	11	oriented strandboard (OSB)
2	softwood, sawtimber	12	other industrial products
2	softwood, sawtimber	13	plywood
2	softwood, sawtimber	14	wood pulp
3	hardwood, pulpwood	15	fuelwood and other
3	hardwood, pulpwood	16	lumber
3	hardwood, pulpwood	17	non-structural panels
3	hardwood, pulpwood	18	oriented strandboard (OSB)
3	hardwood, pulpwood	19	other industrial products
3	hardwood, pulpwood	20	plywood
3	hardwood, pulpwood	21	wood pulp
4	softwood, pulpwood	22	fuelwood and other
4	softwood, pulpwood	23	lumber
4	softwood, pulpwood	24	non-structural panels
4	softwood, pulpwood	25	oriented strandboard (OSB)
4	softwood, pulpwood	26	other industrial products
4	softwood, pulpwood	27	plywood
4	softwood, pulpwood	28	wood pulp
5	hardwood, poles	29	hardwood, poles
6	softwood, poles	30	softwood, poles
7	hardwood, pilings	31	hardwood, pilings
8	softwood, pilings	32	softwood, pilings
9	hardwood, mine props	33	hardwood, mine props
10	softwood, mine props	34	softwood, mine props
11	hardwood, posts	35	hardwood, posts
12	softwood, posts	36	softwood, posts
13	hardwood, fuelwood	37	hardwood, fuelwood
14	softwood, fuelwood	38	softwood, fuelwood
15	hardwood, non-sawtimber	39	hardwood, non-sawtimber
16	softwood, non-sawtimber	40	softwood, non-sawtimber
17	hardwood, ties	41	hardwood, ties
18	softwood, ties	42	softwood, ties

19	hardwood, coop bolts	43	hardwood, coop bolts
20	softwood, coop bolts	44	softwood, coop bolts
21	hardwood, acid/dist.	45	hardwood, acid/dist.
22	softwood, acid/dist.	46	softwood, acid/dist.
23	hardwood, float logs	47	hardwood, float logs
24	softwood, float logs	48	softwood, float logs
25	hardwood, trap float	49	hardwood, trap float
26	softwood, trap float	50	softwood, trap float
27	hardwood, misc-conv.	51	hardwood, misc-conv.
28	softwood, misc-conv.	52	softwood, misc-conv.
29	hardwood, nav stores	53	hardwood, nav stores
30	softwood, nav stores	54	softwood, nav stores
31	hardwood, cull logs	55	hardwood, cull logs
32	softwood, cull logs	56	softwood, cull logs
33	hardwood, sm rnd wd	57	hardwood, sm rnd wd
34	softwood, sm rnd wd	58	softwood, sm rnd wd
35	hardwood, grn bio cv	59	hardwood, grn bio cv
36	softwood, grn bio cv	60	softwood, grn bio cv
37	hardwood, dry bio cv	61	hardwood, dry bio cv
38	softwood, dry bio cv	62	softwood, dry bio cv
39	hardwood, sp wood pr	63	hardwood, sp wood pr
40	softwood, sp wood pr	64	softwood, sp wood pr

Table 3.11: This table shows end use products for each primary product.

Primary Product ID	Primary Product	End Use ID	End Use Product
1	fuelwood and other	1	fuelwood and other
2	lumber	2	manufacturing, other manufacturing
2	lumber	3	rail and railcar, n/a
2	lumber	4	packaging and shipping, n/a
2	lumber	5	manufacturing, furniture
2	lumber	6	other, n/a
2	lumber	7	new nonresidential, other
2	lumber	8	new nonresidential, new nonres buildings
2	lumber	9	residential r and r, n/a
2	lumber	10	new housing, manufactured housing
2	lumber	11	new housing, single family
2	lumber	12	new housing, multifamily
3	non-structural panels	13	manufacturing, other manufacturing
3	non-structural panels	14	new housing, multifamily
3	non-structural panels	15	new housing, single family
3	non-structural panels	16	residential r and r, n/a
3	non-structural panels	17	new nonresidential, new nonres buildings
3	non-structural panels	18	new nonresidential, other
3	non-structural panels	19	rail and railcar, n/a
3	non-structural panels	20	manufacturing, furniture
3	non-structural panels	21	new housing, manufactured housing
3	non-structural panels	22	packaging and shipping, n/a
3	non-structural panels	23	other, n/a
4	oriented strandboard (OSB)	24	new housing, multifamily
4	oriented strandboard (OSB)	25	rail and railcar, n/a
4	oriented strandboard (OSB)	26	new housing, single family
4	oriented strandboard (OSB)	27	new housing, manufactured housing
4	oriented strandboard (OSB)	28	manufacturing, furniture
4	oriented strandboard (OSB)	29	new nonresidential, new nonres buildings
4	oriented strandboard (OSB)	30	manufacturing, other manufacturing
4	oriented strandboard (OSB)	31	packaging and shipping, n/a
4	oriented strandboard (OSB)	32	other, n/a
4	oriented strandboard (OSB)	33	residential r and r, n/a
4	oriented strandboard (OSB)	34	new nonresidential, other
5	other industrial products	35	other industrial products
6	plywood	36	new housing, manufactured housing
6	plywood	37	new housing, multifamily
6	plywood	38	residential r and r, n/a
6	plywood	39	new nonresidential, new nonres buildings
6	plywood	40	new nonresidential, other
6	plywood	41	rail and railcar, n/a
6	plywood	42	manufacturing, furniture
6	plywood	43	manufacturing, other manufacturing
6	plywood	44	packaging and shipping, n/a
6	plywood	45	other, n/a

6	plywood	46	new housing, single family
7	wood pulp	47	wood pulp
8	fuelwood and other	48	fuelwood and other
9	lumber	49	residential r and r, n/a
9	lumber	50	packaging and shipping, n/a
9	lumber	51	manufacturing, other manufacturing
9	lumber	52	manufacturing, furniture
9	lumber	53	rail and railcar, n/a
9	lumber	54	new nonresidential, new nonres buildings
9	lumber	55	other, n/a
9	lumber	56	new housing, multifamily
9	lumber	57	new housing, manufactured housing
9	lumber	58	new housing, single family
9	lumber	59	new nonresidential, other
10	non-structural panels	60	manufacturing, other manufacturing
10	non-structural panels	61	other, n/a
10	non-structural panels	62	new housing, single family
10	non-structural panels	63	rail and railcar, n/a
10	non-structural panels	64	packaging and shipping, n/a
10	non-structural panels	65	new housing, manufactured housing
10	non-structural panels	66	residential r and r, n/a
10	non-structural panels	67	new nonresidential, other
10	non-structural panels	68	manufacturing, furniture
10	non-structural panels	69	new housing, multifamily
10	non-structural panels	70	new nonresidential, new nonres buildings
11	oriented strandboard (OSB)	71	rail and railcar, n/a
11	oriented strandboard (OSB)	72	new nonresidential, other
11	oriented strandboard (OSB)	73	new housing, manufactured housing
11	oriented strandboard (OSB)	74	residential r and r, n/a
11	oriented strandboard (OSB)	75	new nonresidential, new nonres buildings
11	oriented strandboard (OSB)	76	other, n/a
11	oriented strandboard (OSB)	77	packaging and shipping, n/a
11	oriented strandboard (OSB)	78	new housing, multifamily
11	oriented strandboard (OSB)	79	new housing, single family
11	oriented strandboard (OSB)	80	manufacturing, other manufacturing
11	oriented strandboard (OSB)	81	manufacturing, furniture
12	other industrial products	82	other industrial products
13	plywood	83	residential r and r, n/a
13	plywood	84	manufacturing, furniture
13	plywood	85	new housing, single family
13	plywood	86	new housing, multifamily
13	plywood	87	manufacturing, other manufacturing
13	plywood	88	other, n/a
13	plywood	89	rail and railcar, n/a
13	plywood	90	new nonresidential, new nonres buildings
13	plywood	91	new housing, manufactured housing
13	plywood	92	packaging and shipping, n/a

13	plywood	93	new nonresidential, other
14	wood pulp	94	wood pulp
15	fuelwood and other	95	fuelwood and other
16	lumber	96	rail and railcar, n/a
16	lumber	97	packaging and shipping, n/a
16	lumber	98	other, n/a
16	lumber	99	manufacturing, furniture
16	lumber	100	new housing, multifamily
16	lumber	101	new nonresidential, other
16	lumber	102	new housing, single family
16	lumber	103	new nonresidential, new nonres buildings
16	lumber	104	new housing, manufactured housing
16	lumber	105	residential r and r, n/a
16	lumber	106	manufacturing, other manufacturing
17	non-structural panels	107	manufacturing, other manufacturing
17	non-structural panels	108	new housing, multifamily
17	non-structural panels	109	other, n/a
17	non-structural panels	110	residential r and r, n/a
17	non-structural panels	111	new nonresidential, new nonres buildings
17	non-structural panels	112	packaging and shipping, n/a
17	non-structural panels	113	new nonresidential, other
17	non-structural panels	114	new housing, single family
17	non-structural panels	115	new housing, manufactured housing
17	non-structural panels	116	manufacturing, furniture
17	non-structural panels	117	rail and railcar, n/a
18	oriented strandboard (OSB)	118	manufacturing, other manufacturing
18	oriented strandboard (OSB)	119	packaging and shipping, n/a
18	oriented strandboard (OSB)	120	other, n/a
18	oriented strandboard (OSB)	121	manufacturing, furniture
18	oriented strandboard (OSB)	122	rail and railcar, n/a
18	oriented strandboard (OSB)	123	new nonresidential, new nonres buildings
18	oriented strandboard (OSB)	124	new housing, single family
18	oriented strandboard (OSB)	125	new housing, manufactured housing
18	oriented strandboard (OSB)	126	residential r and r, n/a
18	oriented strandboard (OSB)	127	new nonresidential, other
18	oriented strandboard (OSB)	128	new housing, multifamily
19	other industrial products	129	other industrial products
20	plywood	130	residential r and r, n/a
20	plywood	131	packaging and shipping, n/a
20	plywood	132	new housing, manufactured housing
20	plywood	133	new housing, single family
20	plywood	134	new housing, multifamily
20	plywood	135	other, n/a
20	plywood	136	manufacturing, other manufacturing
20	plywood	137	rail and railcar, n/a
20	plywood	138	new nonresidential, new nonres buildings
20	plywood	139	manufacturing, furniture

20	plywood	140	new nonresidential, other
21	wood pulp	141	wood pulp
22	fuelwood and other	142	fuelwood and other
23	lumber	143	residential r and r, n/a
23	lumber	144	manufacturing, furniture
23	lumber	145	new housing, manufactured housing
23	lumber	146	new housing, multifamily
23	lumber	147	new nonresidential, new nonres buildings
23	lumber	148	new nonresidential, other
23	lumber	149	manufacturing, other manufacturing
23	lumber	150	packaging and shipping, n/a
23	lumber	151	other, n/a
23	lumber	152	new housing, single family
23	lumber	153	rail and railcar, n/a
24	non-structural panels	154	new housing, single family
24	non-structural panels	155	manufacturing, furniture
24	non-structural panels	156	other, n/a
24	non-structural panels	157	packaging and shipping, n/a
24	non-structural panels	158	new nonresidential, new nonres buildings
24	non-structural panels	159	manufacturing, other manufacturing
24	non-structural panels	160	new nonresidential, other
24	non-structural panels	161	residential r and r, n/a
24	non-structural panels	162	new housing, multifamily
24	non-structural panels	163	rail and railcar, n/a
24	non-structural panels	164	new housing, manufactured housing
25	oriented strandboard (OSB)	165	manufacturing, furniture
25	oriented strandboard (OSB)	166	manufacturing, other manufacturing
25	oriented strandboard (OSB)	167	new nonresidential, other
25	oriented strandboard (OSB)	168	new housing, single family
25	oriented strandboard (OSB)	169	new housing, multifamily
25	oriented strandboard (OSB)	170	new housing, manufactured housing
25	oriented strandboard (OSB)	171	residential r and r, n/a
25	oriented strandboard (OSB)	172	rail and railcar, n/a
25	oriented strandboard (OSB)	173	packaging and shipping, n/a
25	oriented strandboard (OSB)	174	other, n/a
25	oriented strandboard (OSB)	175	new nonresidential, new nonres buildings
26	other industrial products	176	other industrial products
27	plywood	177	rail and railcar, n/a
27	plywood	178	new nonresidential, other
27	plywood	179	other, n/a
27	plywood	180	manufacturing, other manufacturing
27	plywood	181	new nonresidential, new nonres buildings
27	plywood	182	packaging and shipping, n/a
27	plywood	183	new housing, manufactured housing
27	plywood	184	new housing, multifamily
27	plywood	185	new housing, single family
27	plywood	186	manufacturing, furniture

27	plywood	187	residential r and r, n/a
28	wood pulp	188	wood pulp
29	hardwood, poles	189	hardwood, poles
30	softwood, poles	190	softwood, poles
31	hardwood, pilings	191	hardwood, pilings
32	softwood, pilings	192	softwood, pilings
33	hardwood, mine props	193	hardwood, mine props
34	softwood, mine props	194	softwood, mine props
35	hardwood, posts	195	hardwood, posts
36	softwood, posts	196	softwood, posts
37	hardwood, fuelwood	197	hardwood, fuelwood
38	softwood, fuelwood	198	softwood, fuelwood
39	hardwood, non-sawtimber	199	hardwood, non-sawtimber
40	softwood, non-sawtimber	200	softwood, non-sawtimber
41	hardwood, ties	201	hardwood, ties
42	softwood, ties	202	softwood, ties
43	hardwood, coop bolts	203	hardwood, coop bolts
44	softwood, coop bolts	204	softwood, coop bolts
45	hardwood, acid/dist.	205	hardwood, acid/dist.
46	softwood, acid/dist.	206	softwood, acid/dist.
47	hardwood, float logs	207	hardwood, float logs
48	softwood, float logs	208	softwood, float logs
49	hardwood, trap float	209	hardwood, trap float
50	softwood, trap float	210	softwood, trap float
51	hardwood, misc-conv.	211	hardwood, misc-conv.
52	softwood, misc-conv.	212	softwood, misc-conv.
53	hardwood, nav stores	213	hardwood, nav stores
54	softwood, nav stores	214	softwood, nav stores
55	hardwood, cull logs	215	hardwood, cull logs
56	softwood, cull logs	216	softwood, cull logs
57	hardwood, sm rnd wd	217	hardwood, sm rnd wd
58	softwood, sm rnd wd	218	softwood, sm rnd wd
59	hardwood, grn bio cv	219	hardwood, grn bio cv
60	softwood, grn bio cv	220	softwood, grn bio cv
61	hardwood, dry bio cv	221	hardwood, dry bio cv
62	softwood, dry bio cv	222	softwood, dry bio cv
63	hardwood, sp wood pr	223	hardwood, sp wood pr
64	softwood, sp wood pr	224	softwood, sp wood pr

Table 3.12: Disposition of HWP C for all years. This table shows the fate of all carbon removed from the ecosystem by harvesting.

Inventory Year	Emitted with energy capture^a (metric ton CO₂e)	Emitted without energy capture^a (metric ton CO₂e)	Products in use (metric ton C)	Products in SWDS^d (metric ton C)	Total in HWP C pools^b (metric tons C)
1953	6,891,031	273,669	4,082,670	174,153	4,256,823
1954	15,053,434	1,051,893	8,527,602	647,578	9,175,180
1955	22,684,395	2,330,436	12,267,929	1,355,112	13,623,041
1956	30,880,865	4,089,680	16,061,917	2,233,344	18,295,260
1957	38,868,846	6,313,918	19,470,968	3,238,646	22,709,615
1958	46,155,052	8,960,070	22,249,512	4,318,278	26,567,790
1959	53,888,213	12,007,054	25,152,491	5,445,097	30,597,588
1960	61,908,899	15,456,377	28,083,244	6,615,140	34,698,385
1961	68,908,943	19,339,671	30,476,403	7,562,884	38,039,287
1962	76,188,335	23,646,750	32,924,462	8,515,737	41,440,199
1963	83,736,173	28,343,512	35,424,775	9,478,795	44,903,570
1964	91,177,723	33,391,140	37,757,803	10,446,638	48,204,442
1965	98,639,713	38,753,118	40,019,110	11,413,319	51,432,429
1966	105,822,355	44,395,962	42,035,837	12,372,392	54,408,228
1967	112,646,615	50,272,767	43,785,306	13,309,647	57,094,953
1968	119,544,459	56,365,673	45,538,932	14,230,062	59,768,994
1969	127,000,998	62,677,627	47,587,359	15,147,112	62,734,471
1970	132,479,288	69,192,814	49,549,702	16,055,183	65,604,885
1971	137,481,062	74,903,161	51,033,318	17,257,251	68,290,569
1972	142,728,215	80,779,096	52,686,952	18,452,296	71,139,248
1973	148,815,569	86,844,681	54,981,773	19,667,183	74,648,956
1974	153,430,435	93,097,232	56,837,890	20,889,088	77,726,978
1975	157,840,009	99,528,973	58,439,770	22,103,577	80,543,347
1976	161,902,741	106,117,037	59,666,272	23,291,313	82,957,585
1977	166,337,625	112,856,738	61,255,419	24,460,779	85,716,198
1978	171,671,989	119,748,784	62,631,390	25,621,481	88,252,871
1979	176,869,288	126,741,454	63,917,879	26,730,745	90,648,625
1980	181,420,269	133,799,370	64,718,902	27,772,594	92,491,496
1981	185,734,929	139,622,937	65,461,476	29,013,883	94,475,359
1982	189,319,821	145,432,907	65,664,220	30,194,535	95,858,755
1983	192,450,802	151,196,279	65,577,159	31,301,907	96,879,066
1984	198,171,223	156,905,582	66,399,863	32,394,197	98,794,060
1985	203,995,137	162,555,323	67,290,841	33,497,274	100,788,115
1986	210,355,342	168,155,980	68,493,821	34,627,243	103,121,064
1987	216,666,465	173,726,546	70,081,996	35,813,097	105,895,093
1988	223,397,462	179,280,760	71,906,600	37,052,608	108,959,208
1989	230,404,995	184,838,437	73,853,749	38,356,749	112,210,499
1990	237,574,946	190,415,212	75,520,876	39,722,556	115,243,431
1991	244,895,926	196,959,966	77,473,338	40,634,954	118,108,293
1992	250,878,774	203,542,350	78,562,093	41,550,907	120,112,999
1993	256,413,854	210,108,459	79,375,258	42,462,496	121,837,754
1994	260,304,742	216,613,008	80,421,062	43,362,771	123,783,832
1995	263,918,164	223,094,689	81,164,766	44,306,099	125,470,865
1996	268,124,172	229,553,192	81,247,339	45,285,479	126,532,818
1997	272,310,269	235,877,602	81,410,881	46,207,096	127,617,977
1998	276,720,356	242,049,732	81,797,320	47,097,703	128,895,023
1999	280,596,188	248,045,757	81,908,178	47,953,291	129,861,470
2000	284,541,705	253,869,331	82,130,799	48,790,927	130,921,726
2001	288,045,882	259,808,778	82,241,234	49,412,888	131,654,122
2002	291,831,032	265,641,053	81,819,797	49,999,510	131,819,307
2003	295,804,063	271,249,385	81,545,276	50,587,444	132,132,719
2004	299,720,828	276,741,695	81,314,720	51,136,954	132,451,674

2005	303,772,799	282,050,821	81,201,884	51,681,421	132,883,306
2006	307,855,381	287,175,842	81,152,769	52,226,577	133,379,346
2007	311,689,795	292,114,144	81,040,800	52,770,394	133,811,194
2008	318,040,086	296,867,228	80,791,611	53,309,501	134,101,112
2009	323,393,711	301,441,131	80,349,089	53,841,855	134,190,944
2010	326,665,185	305,825,332	79,462,483	54,349,938	133,812,421
2011	331,322,580	310,071,852	78,946,397	54,871,235	133,817,631
2012	336,558,687	314,192,400	78,598,005	55,403,746	134,001,752
2013	341,696,621	318,193,150	78,252,143	55,941,878	134,194,021
2014	347,532,813	322,097,173	78,090,983	56,496,104	134,587,087
2015	352,468,670	325,894,689	77,735,969	57,048,339	134,784,308
2016	358,093,994	329,612,449	77,560,493	57,615,008	135,175,501
2017	363,667,094	333,252,273	77,385,155	58,189,749	135,574,903
2018	369,267,624	336,821,957	77,227,292	58,772,995	136,000,287
2019	374,964,846	340,328,971	77,101,416	59,365,498	136,466,914
2020	380,483,298	343,775,092	76,941,856	59,963,639	136,905,495

^a HWP C emissions were converted to reporting units in CO2 equivalents.

^b Sum of Products in use and SWDS.

^c Although no records are entered for 2020, the cumulative dispositions from prior year harvests are estimated in 2020.

^d Previous report did not move harvested carbon to SWDS pool until 2 years following harvest, rather than 1 year following harvest in this report. Lag times built into the original model were modified in this data update to allow for better quality assurance of calculations.

Table 3.13: Annualized HWP C flux by owner and pool for 2019 California AB 1504 ten-year reporting intervals and the 2019 reporting period.

	2002-2012	2003-2013	2004-2014	2005-2015	2006-2016	2007-2017	2008-2018	2009-2019	2010-2020	2019 reporting period average
	<i>Metric tons CO₂e</i>									
Private:										
Products in use	-130,536	-203,029	-233,230	-355,857	-407,942	-473,977	-473,251	-422,768	-221,257	-324,650
SWDS	1,490,550	1,482,637	1,488,310	1,493,463	1,503,615	1,514,333	1,529,147	1,547,245	1,575,084	1,513,820
Total	1,360,014	1,279,608	1,255,080	1,137,605	1,095,672	1,040,356	1,055,896	1,124,477	1,353,827	1,189,171
USFS:										
Products in use	-990,855	-952,454	-905,258	-876,258	-877,111	-853,459	-819,595	-756,479	-694,543	-858,446
SWDS	459,847	450,119	446,222	443,826	441,161	440,429	441,142	444,273	448,559	446,175
Total	-531,008	-502,334	-459,036	-432,432	-435,951	-413,031	-378,453	-312,206	-245,984	-412,270
BLM:										
Products in use	-13,810	-13,235	-12,257	-11,849	-11,130	-10,608	-12,732	-13,578	-13,452	-12,517
SWDS	3,799	3,714	3,713	3,712	3,745	3,783	3,672	3,580	3,518	3,693
Total	-10,012	-9,521	-8,544	-8,136	-7,386	-6,825	-9,060	-9,999	-9,934	-8,824
State and other public:										
Products in use	-41,041	-32,381	-22,163	-16,278	-10,117	7,842	14,072	20,195	23,149	-6,302
SWDS	14,625	14,093	14,062	14,116	14,384	15,534	16,468	17,546	18,575	15,489
Total	-26,416	-18,289	-8,101	-2,162	4,267	23,376	30,541	37,741	41,725	9,187
Tribal:										
Products in use	-5,081	-6,382	-9,129	-10,593	-10,867	-10,202	-15,411	-18,183	-18,128	-11,553
SWDS	12,732	12,729	12,714	12,752	12,854	13,019	12,852	12,692	12,621	12,774
Total	7,651	6,346	3,585	2,159	1,987	2,817	-2,560	-5,491	-5,507	1,221
All owners:										
Products in use	-1,181,323	-1,207,482	-1,182,037	-1,270,835	-1,317,168	-1,340,403	-1,306,917	-1,190,813	-924,230	-1,213,468
SWDS	1,981,553	1,963,293	1,965,021	1,967,870	1,975,758	1,987,097	2,003,281	2,025,336	2,058,357	1,991,952
Total	800,230	755,811	782,985	697,034	658,590	646,693	696,364	834,522	1,134,127	778,484

Table 3.14: Average annual timber harvest between 2001 to 2019 weighted by the proportion of FIA plots remeasured each year.

Harvest year	Timber		Weight value	Weight value	Weighted harvest values	
	Harvest (mbf Scribner)	product output (MT C)			(mbf Scribner)	(MT C)
2001	1,751,800	2,788,119	1/99	0.010	17,695	28,163
2002	1,838,753	2,926,511	2/99	0.020	37,147	59,121
2003	1,812,713	2,885,066	3/99	0.030	54,931	87,426
2004	1,875,287	2,984,658	4/99	0.040	75,769	120,592
2005	1,889,454	3,007,205	5/99	0.051	95,427	151,879
2006	1,774,600	2,824,407	6/99	0.061	107,552	171,176
2007	1,776,300	3,318,111	7/99	0.071	125,597	234,614
2008	1,497,513	2,797,340	8/99	0.081	121,011	226,048
2009	915,095	1,709,389	9/99	0.091	83,190	155,399
2010	1,302,764	2,433,550	9/99	0.091	118,433	221,232
2011	1,464,641	2,735,935	9/99	0.091	133,149	248,721
2012	1,437,180	2,684,638	8/99	0.081	116,136	216,940
2013	1,767,033	3,049,488	7/99	0.071	124,942	215,620
2014	1,494,437	2,579,050	6/99	0.061	90,572	156,306
2015	1,703,188	2,939,306	5/99	0.051	86,020	148,450
2016	1,687,376	2,912,018	4/99	0.040	68,177	117,657
2017	1,695,956	2,926,825	3/99	0.030	51,393	88,692
2018	1,724,957	2,976,874	2/99	0.020	34,848	60,139
2019	1,670,830	2,883,464	1/99	0.010	16,877	29,126
					Weighted average (sum of weighted values)	
					1,558,864	2,737,302