

A photograph of a forest with several large, moss-covered tree trunks in the foreground. The ground is covered in fallen brown and orange leaves. The background shows more trees and a slightly hazy sky.

Appendix C

Regional Carbon Stock Inventory Report

Photo Credit: County of Napa



REGIONAL CARBON STOCK INVENTORY REPORT FOR NAPA COUNTY

AUGUST 2023

Report Organization

This report outlines the draft results of a carbon stock and sequestration analysis prepared for Napa County. The carbon stock analysis includes an inventory of existing carbon stored in vegetation and soils throughout the entire county within the jurisdictions of American Canyon, Calistoga, the City of Napa, St. Helena, Yountville, and the unincorporated areas of Napa County. All jurisdictions within Napa County are hereafter referred to collectively as the county or Napa County. The carbon sequestration analysis evaluates the annual rate of carbon dioxide emissions sequestered by vegetation and soil throughout the county.

This report is organized into four key parts:

INTRODUCTION

Provides information about the importance of carbon stock and sequestration in climate mitigation and resilience planning.

DATA AND METHODS

Outlines the specific data, methods, and sources used for the analysis.

SUMMARY OF RESULTS

Presents the findings of this carbon stock and sequestration analysis.

CONCLUSION

Describes the implications of the analysis for future climate mitigation and resilience planning in Napa County.

Key Terms

The following key terms are used throughout this technical memorandum and are defined as such:

Carbon Pool: A system which has the capacity to accumulate or release carbon, considered to be a reservoir. Examples include forest biomass, wood products, soils, and the atmosphere (Intergovernmental Panel on Climate Change [IPCC] 2000).

Carbon Sequestration: The process of increasing the carbon content of a carbon pool other than the atmosphere (IPCC 2000).

Carbon Stock: The absolute quantity of carbon held within a pool at a specified time (IPCC 2000).

Soil Carbon: Included inorganic and organic carbon, it constitutes 75 percent of terrestrial carbon (Ecological Society of America 2000).

Soil Organic Matter: A mixture of carbon compounds consisting of decomposing plant and animal tissue and carbon associated with soil minerals and microbes (Ecological Society of America 2000).

Natural Lands: Lands consisting of forests, grasslands, deserts, freshwater and riparian systems, wetlands, coastal and estuarine areas, watersheds, wildlands, or wildlife habitats, or lands used for recreational purposes such as parks, urban and community forests, greenbelts, trails, and other similar open-space lands. For purposes of this paragraph, “parks” includes, but is not limited to, areas that provide public green space (California Public Resources Code 9001.5).

Working Lands: Lands used for farming, grazing, or the production of forest products (California Public Resources Code 9001.5).

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Section 1. Introduction

1.1 CLIMATE CHANGE AND CARBON SEQUESTRATION

Carbon dioxide (CO₂), the most commonly produced greenhouse gas (GHG), acts as a global insulator for absorbing infrared radiation that is emitted by Earth and re-emitting it back down causing the planet's climate to warm at an unprecedented rate, an impact known as global climate change. Global climate change is the driver of more extreme weather patterns, increases in sea level, rapid melting of the polar ice caps, and other impacts to biological resources and humans. As GHG concentrations in the atmosphere have increased from the combustion of fossil fuels and other anthropogenic (i.e., human-caused) activities, the effects of global climate change have intensified.

Climate change mitigation involves reducing the sources of GHG emissions into the atmosphere and climate change adaptation involves reducing the impacts due to the hazards and risks posed by climate change. In recent years, there has been more attention shown to the potential of carbon sequestration as both a climate change mitigation and climate change adaptation strategy. Carbon sequestration is the process of capturing and storing atmospheric CO₂ (USGS, n.d.a). Biologic carbon sequestration refers to the accumulation of atmospheric CO₂ in vegetation, woody products, soils, and aquatic environments (USGS, n.d.b). This type of sequestration can occur on both natural lands (the original landscape before colonial human disturbance) and working lands (lands that are used to produce goods). The amount of CO₂ that is stored by vegetation or soils on these lands is known as carbon stock. Land use changes have direct impacts on the amount of CO₂ that is stored and sequestered within vegetation and soils in the county. New development that converts grasslands, forests, shrublands, or other natural land covers to urban land uses reduces the carbon sequestration potential of county lands. Reforesting or afforesting barren, unproductive lands to preserve them from development will have the opposite effect, increasing the county's carbon sequestration potential. This inextricable link between land use and carbon

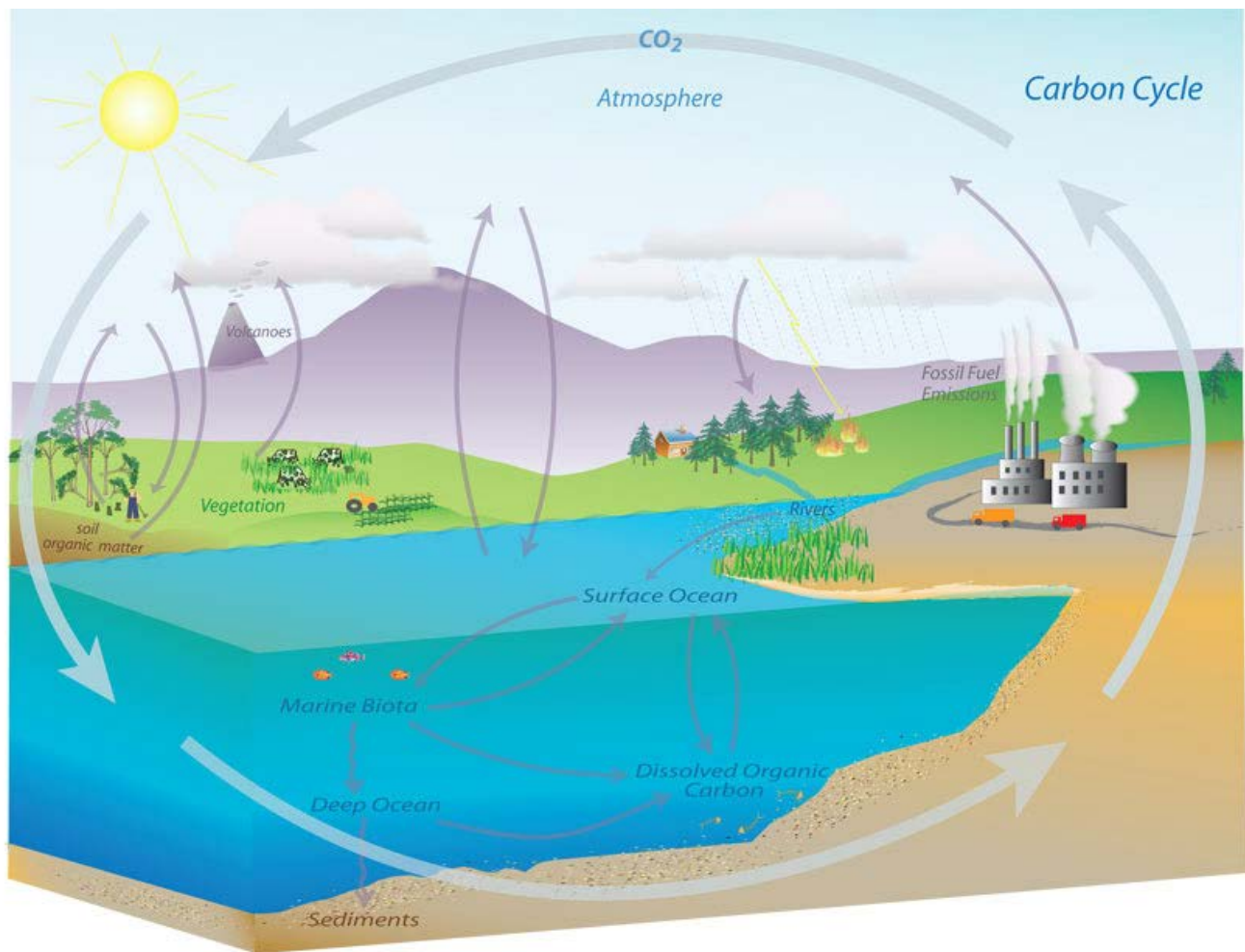
sequestration highlights the need for thoughtful land use planning that minimizes losses to current carbon stock and maximizes preservation/enhancements.

Biologic carbon sequestration in natural and working lands hold a prominent place in California's path toward carbon neutrality. Understanding the magnitude and nature of existing carbon stock and potential future sequestration opportunities from natural and working lands will be an important advancement in climate mitigation and resilience planning in Napa County. As stated in the California Air Resources Board's (CARB's) 2022 Scoping Plan for Achieving Carbon Neutrality, we must "re-envision our natural and working lands—forests, shrublands/chapparral, croplands, wetlands, and other lands—to ensure they play as robust a role as possible in incorporating and storing more carbon in trees, plants, soil, and wetlands that cover 90 percent of the state's 105 million acres while also thriving as a healthy ecosystem" (CARB 2022:2).

1.2 BIOLOGICAL CARBON SEQUESTRATION

The process of biological carbon sequestration is an integral part of the naturally occurring carbon cycle which occurs when plants, animals, and ecosystems take up CO₂. A carbon pool refers to the ability of a system to store and release carbon. The carbon cycle is depicted in Figure 1.

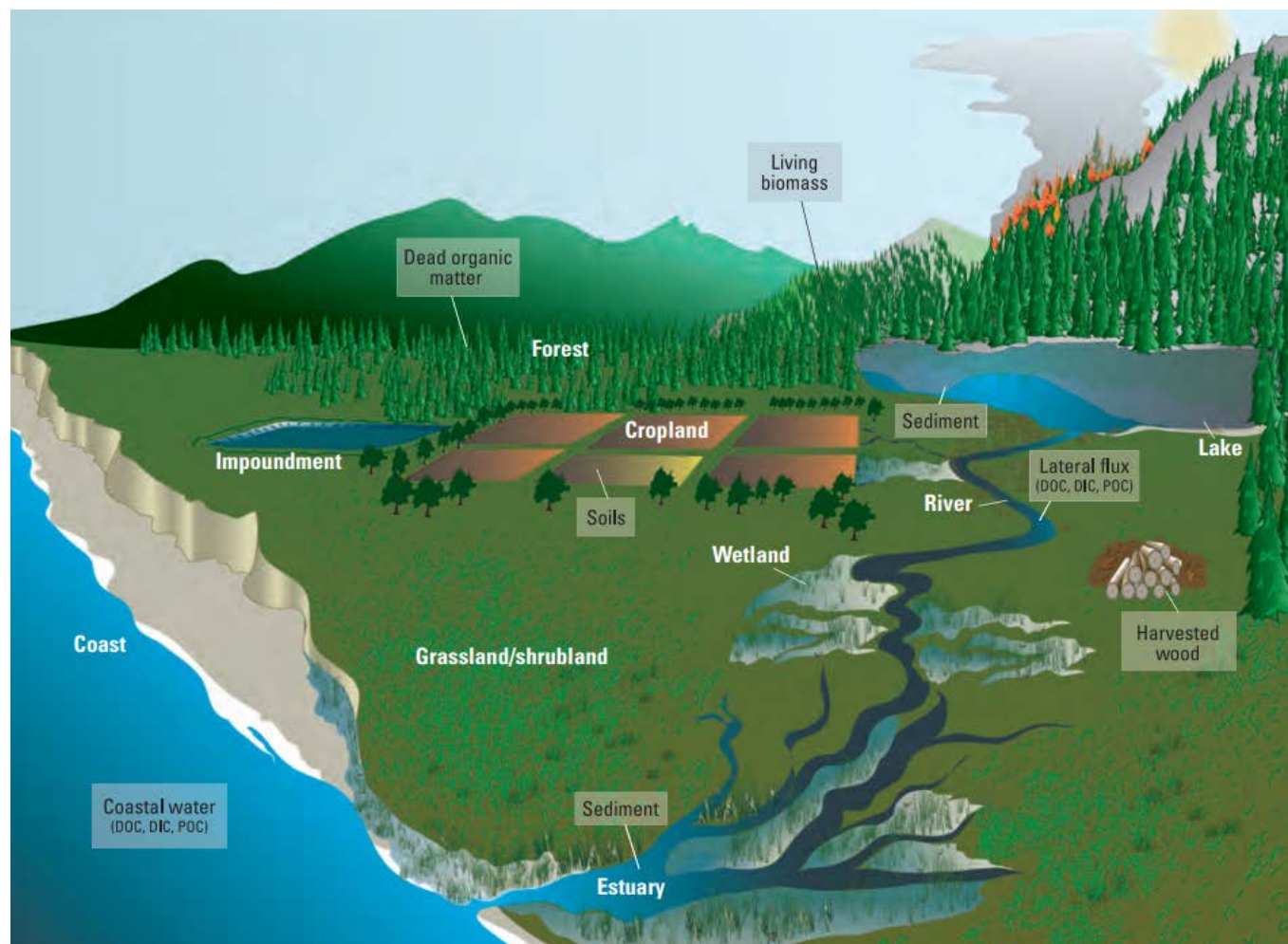
Figure 1 The Carbon Cycle



Source: NOAA 2019.

Shown in Figure 2 are examples of natural and working lands that serve as carbon pools. The forest ecosystem is a carbon pool because it stores carbon in individual trees and vegetation and can release this carbon in the event of a wildfire. If a system can store more carbon than it releases, it is classified as a carbon sink.

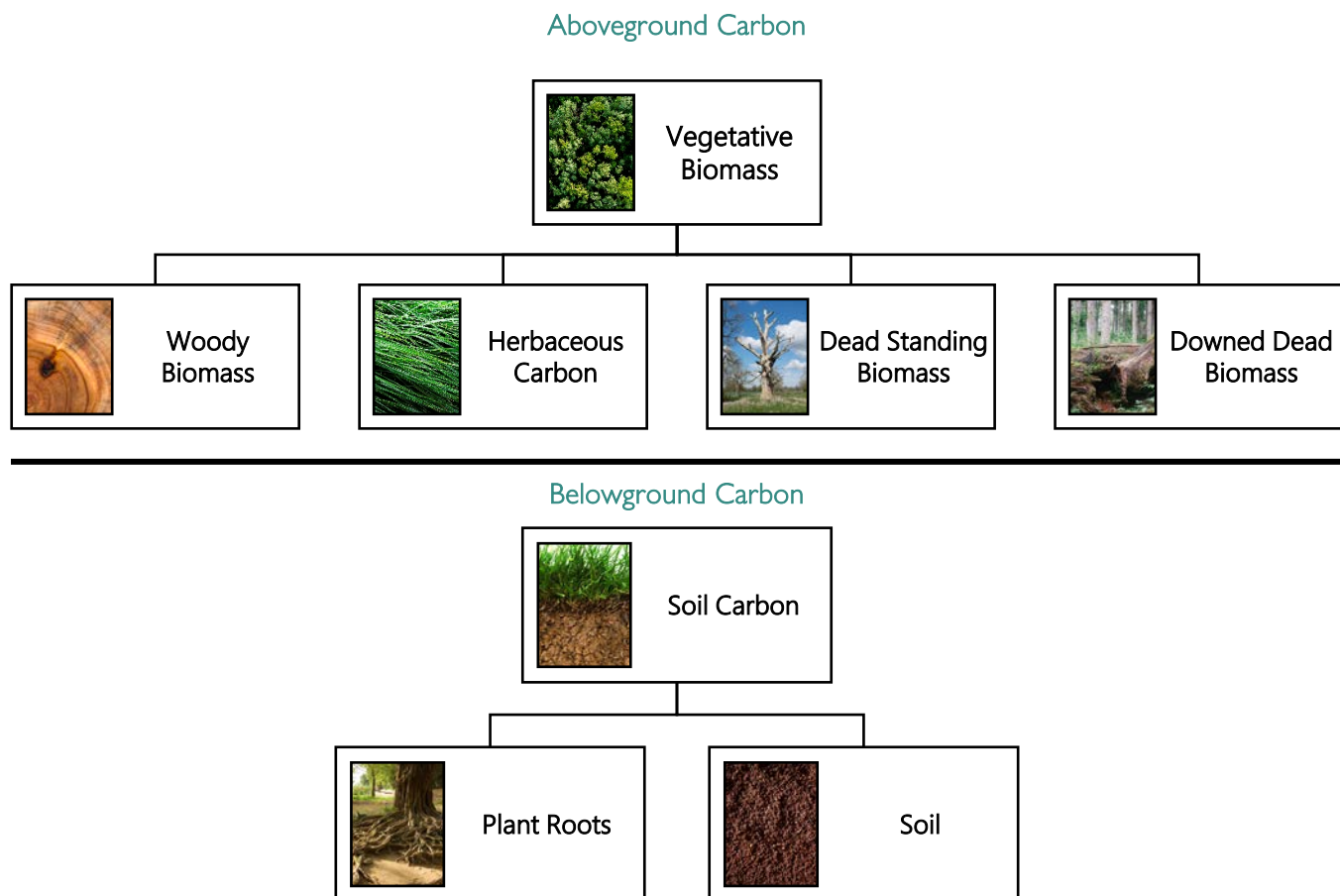
Figure 2 Natural and Working Lands Carbon Pools



Source: Zhu et al. 2010.

Ecosystems like forests, grasslands, and rangelands are known to capture 25 percent of global carbon emissions (UC Davis 2019). In order to assess the amount of carbon stored through biological sequestration, it is important to assess both aboveground and belowground carbon pools. The anatomy of a carbon stock inventory is depicted in Figure 3.

Figure 3 Types and Sources of Carbon included in a Carbon Stock Inventory

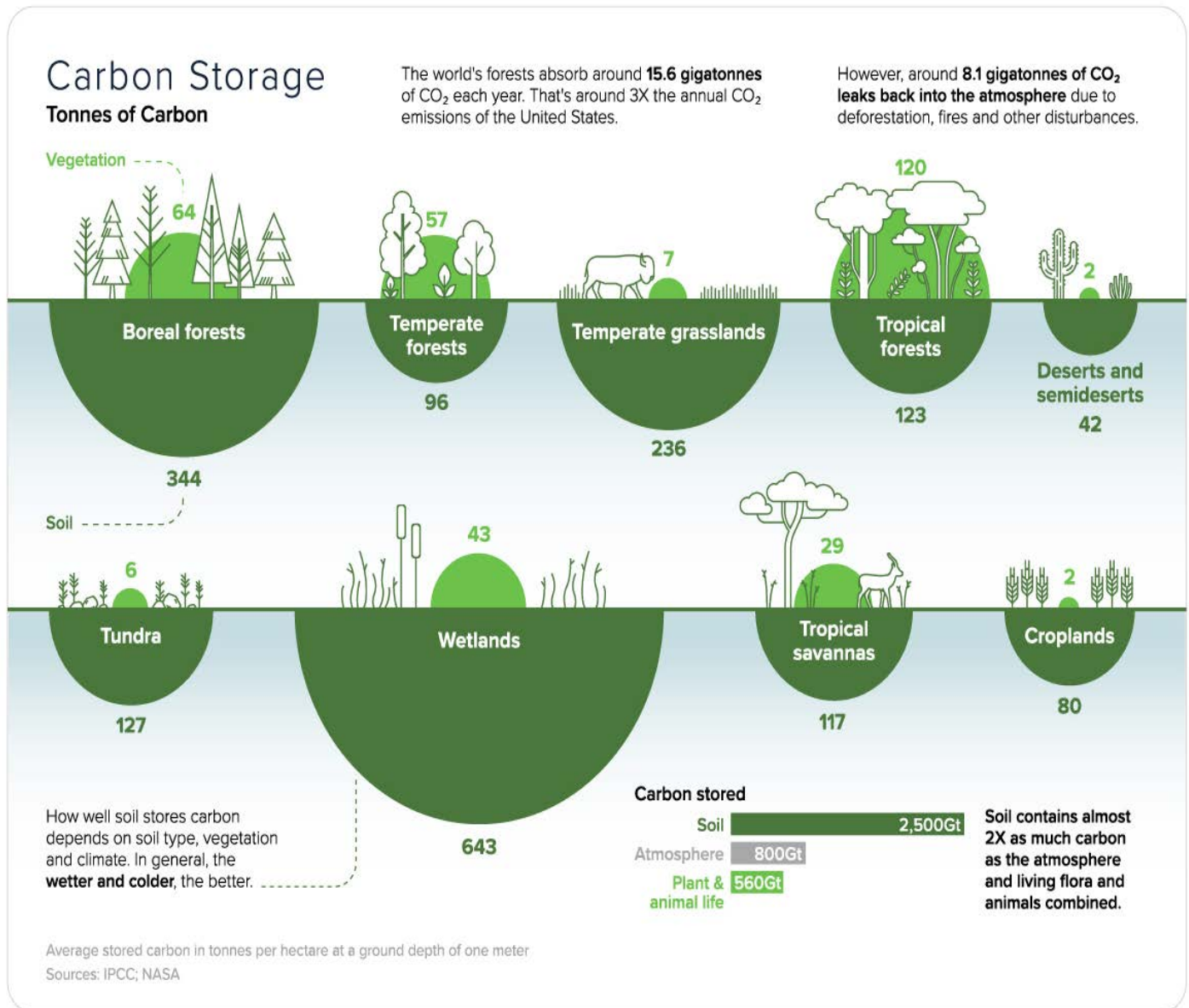


Source: Developed by Ascent in 2022.

Different ecosystems have different proportions of carbon in both aboveground and belowground pools. For example, while forests tend to have more aboveground carbon, grasslands include a large proportion of carbon belowground (Figure 4).



Figure 4 Comparative Carbon Storage Capacity Between Ecosystems



Source: Visual Capitalist 2022.

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Section 2. Carbon Stock & Sequestration Inventory

2.1 ABOVEGROUND CARBON STORAGE

Aboveground carbon is the amount of carbon stored within vegetative biomass (i.e., the mass of any given organism) that is above the soil. Vegetation uses photosynthesis to take CO₂ out of the atmosphere and then stores the carbon in the biomass. Aboveground carbon includes woody biomass in trunks, branches, and shoots as well as herbaceous carbon in leaves, flowers, fruiting bodies, and grasses. Additionally, aboveground carbon includes the carbon in leaf litter, dead standing biomass, and downed dead biomass. Approximately 45-50 percent of the dry biomass weight (excluding water content) of the vegetation is equivalent to its carbon stock (McGroddy et al. 2004; Schlesinger 1991).

2.2 BELOWGROUND CARBON STORAGE

Belowground carbon is the carbon stored within plant roots and soil. Plant root carbon stock is estimated the same way as aboveground carbon: estimating biomass by using the dry weight of the materials and converting the biomass to carbon. In soil, carbon is primarily stored as soil organic matter (SOM). SOM is a mixture of carbon compounds consisting of decomposing plant and animal tissue and carbon associated with soil minerals, and microbes. Within SOM, approximately 58 percent is soil organic carbon (SOC) which represents the distinct carbon pool in the soil (Lal 2004). Overall, soil carbon (i.e., organic and inorganic carbon) constitutes approximately 75 percent of the carbon in terrestrial environments, which is three times the amount stored in living plants and animals. Soils represent a massive sink potential for CO₂ from the atmosphere, although soil carbon can either be stored in the soil for millennia or can be quickly released back into the environment due to decomposition.

2.3 CARBON STOCK AND CARBON SEQUESTRATION

Carbon stock values are presented in terms of metric tons of carbon (MT C) (Figure 4). Carbon sequestration values are presented in terms of metric tons of carbon dioxide equivalent per year (MT CO₂e/year). Carbon stock is the amount of carbon stored at a given point in time, whereas carbon sequestration is the active exchange of carbon to and from the atmosphere and is thereby represented as a rate.

2.4 RELEVANCE OF CARBON SEQUESTRATION

In April 2019, the State of California prepared the Draft California 2030 Natural and Working Lands Climate Change Implementation Plan (NWLIP), in response to CARB's Resolution 17-46. The objectives of the NWLIP are to integrate climate goals into State-funded natural and working land conservation, restoration, and management programs; enhance natural and working lands' resilience to climate impacts, sequester carbon, and reduce GHG emissions; and identify next steps to address policy challenges facing natural and working lands (CalEPA, CNRA, CDFA, CARB, and SGC 2019). In October 2020, Governor Gavin Newsom highlighted the importance of California's natural and working lands for carbon sequestration through the signing of Executive Order N-82-20, which set a target of conserving 30 percent of the state's lands by 2030.

CARB's 2022 Scoping Plan for Achieving Carbon Neutrality states that reducing GHG emissions from and increasing sequestration on natural and working lands is crucial to the State's long-term climate change strategy to meet the requirements of Assembly Bill (AB) 1279 of 2022, which set forth a statewide target to achieve net zero GHGs no later than 2045 (CARB 2022). California has developed a Natural and Working Lands Climate Smart Strategy, which evaluates nature-based climate solutions, outlines regional opportunities for climate smart land management, and identifies options to track nature-based climate action and measure progress (CNRA 2022).

In addition, AB 1757 of 2022 requires the California Natural Resources Agency to set natural carbon sequestration targets and determine nature-based solutions to reduce GHG emissions to support achieving carbon neutrality no later than 2045. AB 1757 also requires CARB to develop standard methods to consistently track GHG emissions and reductions, carbon sequestration, and other benefits from natural and working lands.

Carbon stock inventories for cities and counties within California are imperative in understanding how to increase carbon sequestration statewide. These inventories can provide a baseline to improve upon into the future and can inform projects that will increase carbon removal from the atmosphere, as directed by AB 1279 and AB 1757.

Napa County, for example, has the benefits of its natural and working lands through arable land that produce food, wine, recreational amenities, tourism, and wildlife habitat. Historically, land has been converted from natural and working lands into agricultural land within the county. The consequences of lost natural lands and their impacts on carbon stock have not been evaluated. Management practices can affect a soil's potential to be either a source or a sink of carbon. For example, conservation farming practices such as reduced tillage, cover cropping, and crop rotation can be used to increase soil carbon compared to conventional practices (Ecological Society of America 2000).

This report seeks to provide a baseline estimate for the carbon that is already stored in the county's vast natural and working lands. Additionally, the analysis provides an annual rate of carbon sequestered by these lands.

2.5 DATA AND METHODS

2.5.1 Data Sources

VEGETATIVE CARBON

To estimate the carbon stock and sequestration in Napa County, a GIS-based analysis was performed using the best available data for land cover (i.e., vegetation), ownership types, and soil. The following data sources were used for vegetative carbon:

- ▶ County of Napa's GIS Department
- ▶ US Fish and Wildlife Service's National Wetlands Inventory (NWI)
- ▶ California Protected Areas Database and California Conservation Easement Database

Each source has data that is mapped; this is often referred to as a layer. For this analysis, multiple layers were overlapped in order to determine approximate land cover type across the county and assign corresponding sequestration values. The County of Napa's GIS Department's publicly available ArcGIS online data sources includes land cover vegetation data with categories such as Blue Oak woodland, Coastal Sage Scrub, and Coast Redwood, which are all prominent species in the natural landscapes of Napa County.

These data were then intersected with a Napa County-generated publicly available data layer of agricultural uses. This agricultural layer was used to identify vineyards and orchards and superseded the Napa County vegetation layer so as to not double county carbon stored by these types of vegetation. Both data layers from the County are described in greater detail in the section on data sources below.

Next, these GIS layers were intersected with the US Fish and Wildlife Service's National Wetlands Inventory (NWI). In the areas where the NWI layer overlapped with the land cover layer or the agricultural layer, these layers were removed because NWI is considered the most specific for this land cover type. The NWI contains more than 35 million wetland and deepwater features for all of the US. The data are updated twice a year and provides information on the status, extent, characteristics, and functions of wetland, riparian, and deepwater habitats which is used in this analysis. Wetlands are identified using aerial imagery based on vegetation, visible hydrology, and geography. A margin of error is inherent in the use of this imagery as it is not based on detailed on-the-ground inspection of individual wetland sites (USFWS n.d.).

To estimate vegetative carbon sequestration, additional GIS data layers for land ownership types (e.g., federal agencies, state agencies, private) from the California Protected Areas Database and California Conservation Easement Database were used. These land ownership types, in combination with land cover types and acreage values, were linked to vegetative carbon sequestration values from the CALAND Report to generate MT CO₂e/year estimates for carbon sequestered throughout the county.



Figure 5 Map of Aboveground Carbon Storage in Napa County



County Boundaries

- Boundary

Aboveground Carbon Storage

- 0 Metric tons CO₂/hectare
- 0-25 Metric tons CO₂/hectare
- 26-50 Metric tons CO₂/hectare
- 51-100 Metric tons CO₂/hectare
- More than 100 Metric tons CO₂/hectare

Urban Forest Carbon Storage

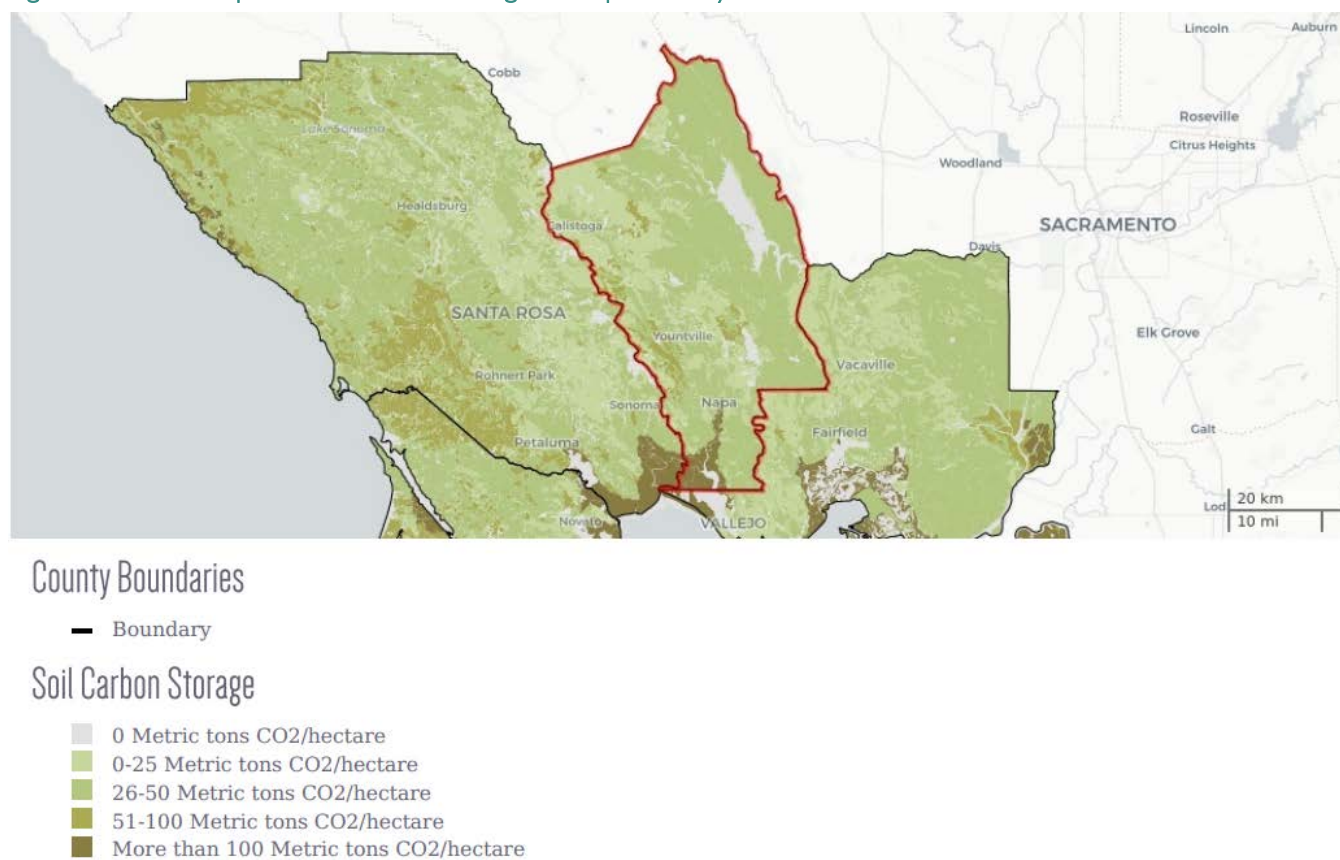
- 0 Metric tons CO₂/hectare
- 0-25 Metric tons CO₂/hectare
- 26-50 Metric tons CO₂/hectare
- 51-100 Metric tons CO₂/hectare
- More than 100 Metric tons CO₂/hectare

Source: Bay Area Greenprint n.d.

SOIL CARBON

Soil carbon stock was estimated using the US Department of Agriculture's Natural Resources Conservation Service's (NRCS's) SSURGO dataset, which provides soil type data throughout the state, inclusive of Napa County. Data are collected from soil surveys performed throughout the county, and therefore, is considered to be specific to the area of this analysis. Measurements of bulk density, soil organic matter, and soil depth are used in quantifying the amount of carbon within each soil type present within the county. These carbon stock values were then multiplied by the acreage of each soil type in order to account for carbon held within soils. The land cover data layers which were intersected for the vegetative carbon method, as outlined above, were also used to specify the soil carbon stored within each land cover type.

Figure 6 Map of Soil Carbon Storage in Napa County



Source: Bay Area Greenprint n.d.

2.5.2 Carbon Stock and Sequestration Quantification

Once land use cover types and acreages were obtained for the county, carbon storage and sequestration rates were applied to understand the carbon already stored in vegetation and soil (i.e., carbon storage), as well as the rate of additional carbon that could be taken up by vegetation and soil on an annual basis (i.e., carbon sequestration).

VEGETATIVE CARBON

The acreages of each land cover type from the GIS analysis described above were linked to carbon stock values found in scientific literature. These carbon stock and sequestration values were used in the analysis to multiply by the acreage of each land cover type. Where values for carbon stock or sequestration could not be found for specific land cover types, land cover types were combined into more general categories. For example, the land cover layer from Napa County identified a “Chamise Alliance” comprised of Sclerophyllous shrubland and Wedgeleaf Ceanothus. Because specific carbon stock and sequestration values were not available for these species, they were combined into a broader category of “shrubland,” for which carbon stock and sequestration values were available. Where possible, literature values that are regionally specific were used.

Carbon stock values for agricultural land cover types were used from scientific reports prepared for CARB and the California Environmental Protection Agency (Saah et al. 2016). Values for orchards and vineyards were calculated by averaging the carbon stock rates for different crops that fall under the orchard category and varieties of wine grapes found in Napa County. Carbon stock values for forest land cover types were provided by the California Forest Carbon Plan (Forest Climate Action Team 2018) and woodland carbon stock values were provided by An Inventory of Carbon and California Oaks (Gaman 2008).

Other carbon stock values for Riparian woodland, mixed shrubland, grassland, chapparral, and urban environments came from scientific literature values that are specific to the vegetation types found in Napa County.

Vegetative carbon sequestration rates from the CALAND Report were used to generate MT CO₂e/year estimates for carbon sequestered throughout the county on an annual basis for all land cover types. The CALAND Report provides annual net carbon exchanges in live vegetation and soil without interventions, and under a historical climate. A positive number indicates that carbon was taken up by vegetation and soil (i.e., carbon sequestration or a carbon sink), while a negative number indicates carbon was released by vegetation and soil (i.e., carbon emissions or a carbon source).

The sources and rates for metric tons of carbon per acre by vegetation/land cover type are presented in Table 1 below.

Table 1 Vegetation Carbon Stock Values by Land Cover Type

Ecosystem	Land Cover Type	Vegetation (MT C/acre)	Source
Agricultural Lands	Vineyard	1.78	Saah 2016
	Orchard	3.95	
Forests	Coast Redwood	122.4	Forest Climate Action Team 2018
	Douglas-fir	72.1	
	Mixed conifer	57.4	
	Douglas-fir/ponderosa pine	48.15	
	Coast Live Oak/ Blue Oak	18.21	Gaman 2008
	Blue Oak	12.55	
	Mixed Oak	29.14	
	Black Oak	21.04	
	Interior Live Oak/ Blue Oak	16.99	
	Coast Live Oak	23.87	
	Valley Oak	9.71	
	Canyon Live Oak	54.63	
	Interior Live Oak	21.45	
	Oregon Oak	24.69	
	Tanbark oak	49.78	
Grasslands/Shrublands	Riparian woodland	45.71	Dybala et al. 2018
	Mixed shrubland	16.18	Brown et al. 2004
	Grassland	1.416	Bolman et al. 2018
	Chamise chaparral	8.56	

Ecosystem	Land Cover Type	Vegetation (MT C/acre)	Source
	Mixed chaparral	14.01	
	Coastal sage scrub	6.40	
Developed	Urban	3.448	Bjorkman et al. 2015
Wetland	Estuarine and Marine Deepwater	7.5	USGS 2012

Notes: C=carbon; MT= metric tons.

Source: Compiled by Ascent in 2023.

Soil Carbon

The soil carbon stock inventory was conducted using the NRCS's gSSURGO dataset of soil types through Napa County. Each soil type's carbon stock was calculated first by identifying the soil mass per acre, which was measured by horizon depth and the bulk density of the soil types. The soil mass was then converted to soil organic matter with a percentage of 58, provided by a soil scientist. Each soil type's carbon value was averaged on a per acre basis and was multiplied by the acreage of each soil type found in the county.

Soil carbon sequestration was calculated by applying sequestration rates from the CALAND Report. These rates are sorted by ownership, region, and land cover type. As discussed above, a positive number indicates carbon was taken up by the soil, while a negative number means that carbon was lost from the soil.

2.6 SUMMARY OF RESULTS

2.6.1 Carbon Stock Results

Based on the modeling conducted, existing carbon stock by vegetation and soils on natural and working lands countywide is approximately 16,805,044 MT C. Table 2 and Figure 7 display the total carbon storage for vegetation and soils in the county by vegetation/land cover type and jurisdiction. It is important to note that the carbon stock values provided in Table 2 and Figure 7 include all landowner types in the county. These include the US Forest Service, US Bureau of Land Management, National Park Service, US Department of Defense, other federal government lands, California State lands, local government, private, and conservation easements. To provide a comprehensive estimate of carbon storage on lands located in the county, all landowners were included.

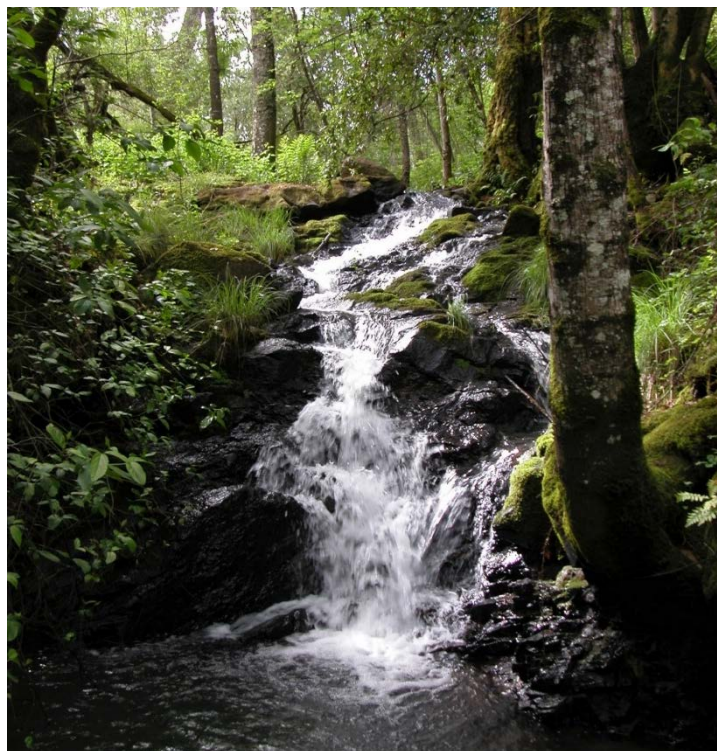


Table 2 Napa County Carbon Stock by Vegetation/Land Cover Type

Jurisdiction	Vegetation/Land Cover Type	Vegetation Carbon Stock (MT C)	Soils Carbon Stock (MT C)	Total Carbon Stock (MT C)
American Canyon	Wetlands	1,249	3,503	4,752
	Cultivated	14	119	133
	Forest	NA ¹	NA ¹	NA ¹
	Grassland	1,600	19,415	21,014
	Other Lands ¹	-	2,054	2,054
	Shrubland	NA ¹	NA ¹	NA ¹
	Urban	8,538	41,325	49,863
	Woodland	389	132	522
	Subtotal	11,791	66,547	78,338
Calistoga	Wetlands	181	850	1,031
	Cultivated	400	7,216	7,617
	Forest	9,546	1,306	10,852
	Grassland	234	5,519	5,753
	Other Lands ¹	-	1,033	1,033
	Shrubland	75	53	128
	Urban	2,920	28,753	31,672
	Woodland	7,365	4,464	11,829
	Subtotal	20,722	49,192	69,914
City of Napa	Wetlands	5,144	16,383	21,527
	Cultivated	727	7,282	8,009
	Forest	NA ¹	NA ¹	NA ¹
	Grassland	1,252	19,149	20,401
	Other Lands ¹	NA ¹	6,483	6,483
	Shrubland	NA ¹	NA ¹	NA ¹
	Urban	30,425	164,281	194,706
	Woodland	22,223	11,703	33,926
	Subtotal	59,771	225,281	285,052
St. Helena	Wetlands	389	825	1,214

Jurisdiction	Vegetation/Land Cover Type	Vegetation Carbon Stock (MT C)	Soils Carbon Stock (MT C)	Total Carbon Stock (MT C)
	Cultivated	1,977	29,244	31,221
	Forest	9,417	1,707	11,124
	Grassland	367	6,999	7,366
	Other Lands ¹	NA ¹	1,207	1,207
	Shrubland	48	42	91
	Urban	3,891	27,959	31,850
	Woodland	14,392	6,106	20,498
	Subtotal	30,481	74,090	104,571
Yountville	Wetlands	100	330	429
	Cultivated	99	970	1,068
	Forest	4,375	1,372	5,747
	Grassland	16	225	241
	Other Lands ¹	NA ¹	260	260
	Shrubland	311	603	915
	Urban	1,906	11,104	13,010
	Woodland	5,412	4,120	9,532
	Subtotal	12,219	18,984	31,203
Unincorporated	Wetlands	128,980	346,567	475,547
	Cultivated	92,055	1,100,623	1,192,678
	Forest	2,622,248	466,235	3,088,483
	Grassland	87,209	1,244,457	1,331,666
	Other Lands ¹	NA ¹	198,827	198,827
	Shrubland	497,912	580,279	1,078,191
	Urban	48,012	263,887	311,898
	Woodland	5,200,964	3,357,410	8,558,374
	Subtotal	8,677,381	7,558,284	16,235,664
All Jurisdictions	Wetlands	136,043	368,456	504,499
	Cultivated	95,272	1,145,454	1,240,726
	Forest	2,645,587	470,619	3,116,206

Carbon Stock and Sequestration Inventory

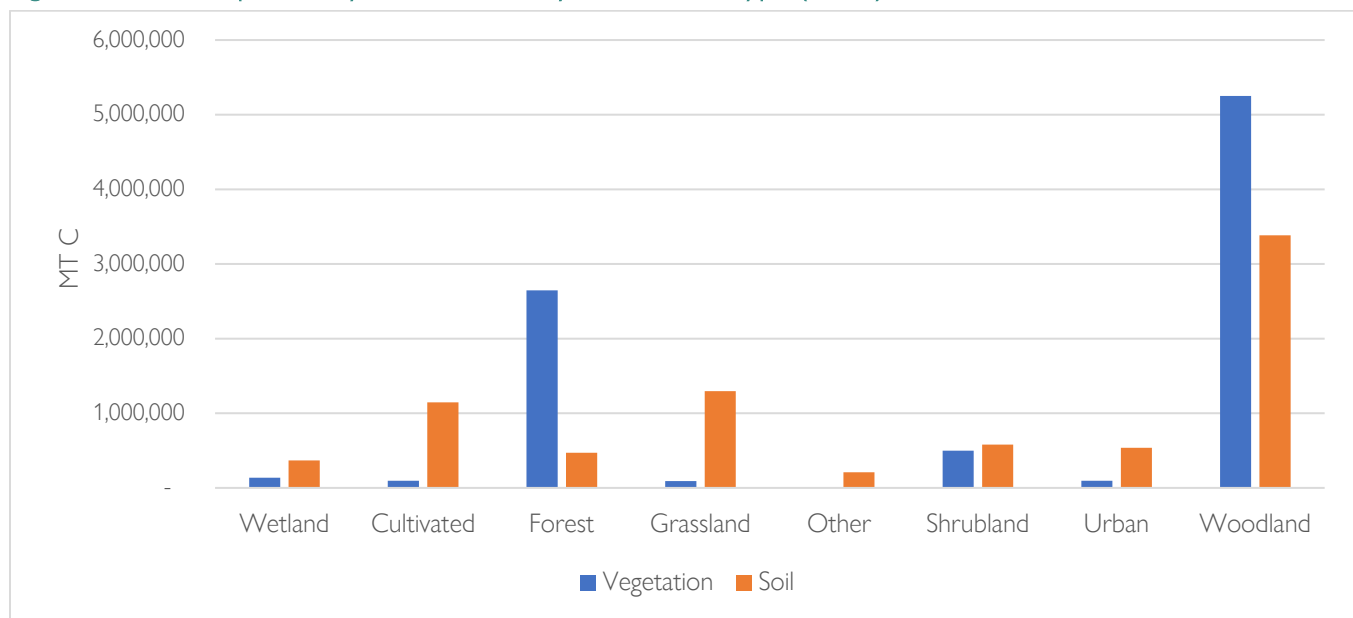
Jurisdiction	Vegetation/Land Cover Type	Vegetation Carbon Stock (MT C)	Soils Carbon Stock (MT C)	Total Carbon Stock (MT C)
	Grassland	90,678	1,295,763	1,386,441
	Other Lands ¹	NA ¹	209,864	209,864
	Shrubland	498,347	580,977	1,079,324
	Urban	95,692	537,309	633,000
	Woodland	5,251,048	3,383,935	8,634,983
	Carbon Stock Total	8,812,667	7,992,377	16,805,044

Notes: C=carbon; MT= metric tons; NA = not available.

¹ Land cover type not shown in spatial data used for this analysis. There may be carbon held where NA values are listed.

Source: Prepared by Ascent in 2023.

Figure 7 Napa County Carbon Stock by Land Cover Type (MT C)



Notes: C = carbon; MT = metric tons.

Source: Prepared by Ascent in 2023.

2.6.2 Carbon Sequestration Results

Table 3 displays the total carbon sequestration for vegetation/land cover type based on the rates provided in the CALAND Report and using acreages by land cover type derived from the GIS analysis described above. Based on the modeling conducted, carbon sequestered by vegetation and soils on natural and working lands ranges between a minimum of 5,347 MT CO₂e/year and a maximum of 1,295,292 MT CO₂e/year. In comparison, the amount of emissions generated by all jurisdictions within Napa County was reported as 1,221,816 MT CO₂e/year in 2019 (Ascent 2022). Minimum and maximum values are reported to show the error margin between estimates of carbon sequestration in both soils and vegetation. The CALAND Report includes carbon sequestration values based on land cover type, ownership, and region for both soil and vegetation. To provide a comprehensive estimate of carbon sequestration on lands located within the county, all landowner types and jurisdictions were analyzed, and the results are presented in Table 3.

Table 3 Napa County Carbon Sequestration by Vegetation/Land Cover Type¹

Vegetation/ Land Cover Type	Vegetation Carbon Sequestration (MT CO ₂ e/year)	Soil Carbon Sequestration (MT CO ₂ e/year)	Total Carbon Sequestration (MT CO ₂ e/year)	Vegetation Carbon Sequestration (MT CO ₂ e/ year)	Soil Carbon Sequestration (MT CO ₂ e/year)	Total Carbon Sequestration (MT CO ₂ e/year)
	Minimum			Maximum		
Wetlands	0	5,652	5,652	0	71,865	71,865
Cultivated	0	-5,467	-5,467	0	35,142	35,142
Forest	238,887	26,048	264,935	315,529	64,168	379,697
Grassland	0	-334,950	-334,950	0	-88,747	-88,747
Other Lands ²	0	0	0	0	0	0
Shrubland	45,101	14,549	59,650	90,202	26,188	116,389
Urban	71,808	0	71,808	76,891	0	76,891
Woodland	988,321	-1,044,513	-56,192	1,437,859	-733,804	704,055
Total	1,344,117	-1,338,680	5,437	1,920,481	-625,189	1,295,292

Notes: CO₂e= carbon dioxide equivalent; MT= metric tons; NA = not applicable.

¹ Negative values indicate a source of carbon dioxide emissions.

² Land cover types not shown in spatial data used for this analysis. There may be carbon held where NA values are listed.

Source: Prepared by Ascent in 2023.

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Section 3. Conclusion

This analysis is a baseline assessment of carbon storage and sequestration on natural and working lands in Napa County. Based on the availability and granularity of data, there is a margin of error in these estimates, but it still provides an important consideration in climate action planning in the region: there are highly productive lands that store and continually sequester carbon and these lands should be conserved and enhanced to increase the potential for future sequestration. To assess future carbon sequestration and storage levels would be challenging due to both changes in land use and climate change, which is discussed in further detail below.

The results of this analysis can be incorporated into climate action planning efforts and can lead to the development of strategies, measures, and actions to enhance carbon sequestration and provide credit for land management activities that promote carbon sequestration.

3.1.1 Carbon Stock and Sequestration Forecast Considerations

To consider future carbon stock held in natural and working lands in Napa County requires spatial datasets that include future climate-related impacts and future land use development patterns consistent with general plans and regional land use plans. Developing these estimates quantitatively is challenging for several reasons.

First, future land use data are currently not available in a GIS format that covers all jurisdictions within Napa County that would allow an analysis to compare existing land uses with future land uses. Without this spatial data, it is unknown what land cover types may be disturbed or removed to accommodate new development, and therefore, the associated carbon loss is unknown. If such data were available in the future, it could be incorporated into this analysis to provide such projections of future carbon stock.

Second, climate-related impacts such as wildfire can be expected to impact existing carbon stock and future sequestration opportunities. The impact of wildfires on carbon sequestration in ecosystems includes both the immediate release of GHG emissions from the burning of biomass, as well as the long-term combined effects of decomposing biomass after a wildfire, and regenerating vegetation which increases the uptake of carbon (USGS

Conclusion

2012:13). Predicting future wildfire severity and locations would require extensive modeling and analysis that is outside the scope of this effort. From available wildfire projection data, it is estimated that the average area burned in Napa County is 1,342 acres per year through 2050 (California Energy Commission 2023). This, however, does not consider vegetation management and treatment programs that may be occurring throughout the county between now and 2050.

Fuels and forest treatments such as prescribed burning, animal grazing, and thinning from below have the negative impact of removing carbon stock from natural and working lands. However, these types of treatments may provide benefits to reduce GHG emissions associated with a wildfire event.

These considerations make future carbon stock estimates challenging to conduct at a local scale with currently available data. It is important to note that although future carbon stock estimates have been completed by CARB as part of the 2022 Scoping Plan, these estimates are provided at a statewide level and are not able to be downscaled to a jurisdiction-wide level. The enactment of AB 1757 will continue to play a large role in the future of sequestration quantification and target setting and could eventually be incorporated into future climate action planning efforts in Napa County.



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Conclusion

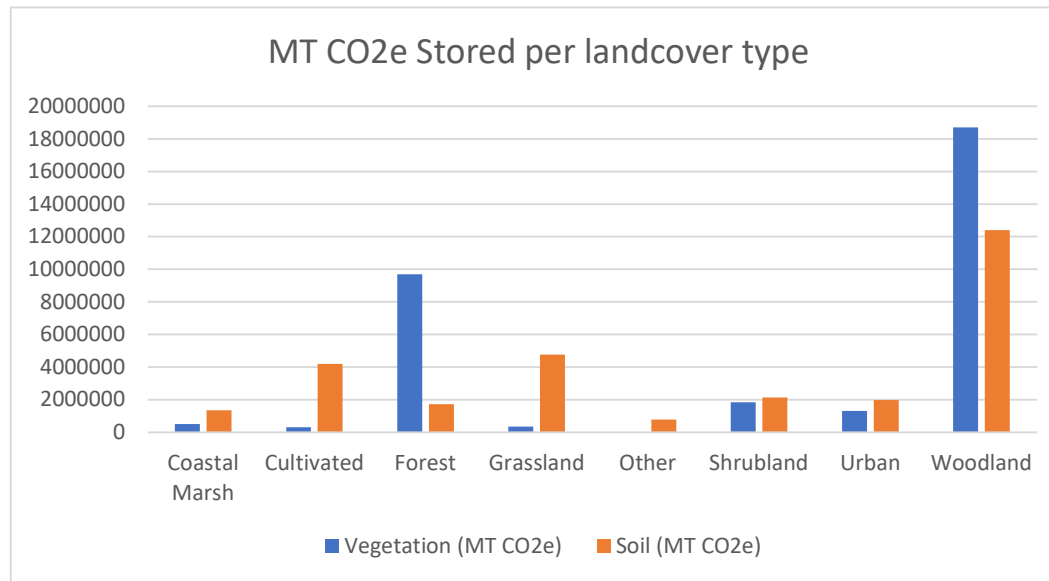
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Attachment A

Carbon Stock and Sequestration Calculations

Carbon stored in each landcover type

	Vegetation (MT CO2e)	Soil (MT CO2e)	Total (MT CO2e)
Coastal Marsh	498824.4057	1351005.59	1849829.995
Cultivated	312251.1012	4199997.175	4512248.277
Forest	9699755.489	1725603.549	11425359.04
Grassland	333771.9327	4751131.006	5084902.939
Other	0	769501.9504	769501.9504
Shrubland	1827052.055	2130250.142	3957302.197
Urban	1301514.578	1970131.429	3271646.007
Woodland	18708447.33	12407762.36	31116209.69
Total	32,681,616.89	58,610,766.39	61,987,000.09



MT CO2e stored and sequestered by Vegetation in each jurisdiction

Row Labels	Sum of Carbon stored in vegetation (MT CO2e)	Sum of Carbon Seq in vegetation (MTCO2e)
American Canyon	43033.12803	5374.789733
Coastal Marsh	4581.315992	0
Cultivated	46.35803228	0
Grassland	5888.880238	0
Other	0	0
Urban	31672.39333	5328.049331
Woodland	844.1804431	46.74040274
Calistoga	73095.76401	4734.236766
Coastal Marsh	665.2971689	0
Cultivated	1325.891116	0
Forest	35002.68092	981.487758
Grassland	861.8062962	0
Other	0	0
Shrubland	274.512999	6.385365893
Urban	10830.37839	2462.742778
Woodland	24135.19712	1283.620864
Napa	207418.3474	29620.87526
Coastal Marsh	18860.41833	0
Cultivated	2384.023558	0
Grassland	4607.620341	0
Other	0	0
Shrubland	7.24061E-05	4.25127E-06
Urban	112859.2452	25633.55814
Woodland	68707.03996	3987.317125
St Helena	108018.7557	6913.354901
Coastal Marsh	1425.281086	0
Cultivated	6478.204081	0
Forest	34529.72803	964.3170763
Grassland	1351.438864	0
Other	0	0
Shrubland	177.1996961	7.790952872
Urban	14434.03587	3282.18612
Woodland	49622.86809	2659.060752
Unincorporated	#N/A	1582238.255
Coastal Marsh	472926.8667	0
Cultivated	301692.8597	0
Forest	#N/A	274637.5575
Grassland	321004.1577	0
Other	0	0
Shrubland	1825459.024	67593.36268
Urban	178094.1037	36035.48772
Woodland	22932609.94	1203971.847
(blank)	#N/A	0
Yountville	47084.20061	3417.369628
Coastal Marsh	365.2264372	0
Cultivated	323.7646316	0
Forest	16043.28129	624.7618872
Grassland	58.02925345	0
Other	0	0
Shrubland	1141.318737	43.7563446
Urban	7068.869359	1607.40524
Woodland	22083.7109	1141.446156
Grand Total	26989087.34	1,632,299

MT CO2e stored and sequestered by Soil in each jurisdiction

Row Labels	Sum of MTCO2e stored in soil	Sum of MTCO2e Seq in soil
American Canyon	244004.4536	-3413.97455
Coastal Marsh	12842.55538	355.967168
Cultivated	435.9351452	2.050262589
Grassland	71186.50093	-3737.732666
Other	7529.920928	0
Urban	151524.1079	0
Woodland	485.4333144	-34.25931429
Calistoga	180371.4809	-1234.547334
Coastal Marsh	3115.00407	51.69343252
Cultivated	26459.05653	58.14791601
Forest	4787.327859	141.5417534
Grassland	20234.92436	-546.9972923
Other	3787.948726	0
Shrubland	193.6430509	1.922475753
Urban	105426.3742	0
Woodland	16367.20203	-940.8556195
Napa	826029.9042	-4268.689538
Coastal Marsh	60070.33893	1465.450041
Cultivated	26701.13582	112.9482328
Grassland	70213.04505	-2924.503871
Other	23771.40864	0
Shrubland	0.00036312	1.27995E-06
Urban	602364.0223	0
Woodland	42909.95309	-2922.583942
St Helena	271663.0301	-2247.407453
Coastal Marsh	3024.370105	110.744002
Cultivated	107228.8063	308.0081835
Forest	6258.675306	138.278634
Grassland	25662.43518	-857.7721036
Other	4426.771901	0
Shrubland	155.4242557	2.34566323
Urban	102516.7439	0
Woodland	22389.80328	-1949.011832
Unincorporated	27713706.29	-968884.33
Coastal Marsh	1270744.842	35896.30631
Cultivated	4035617.259	14267.16927
Forest	1709528.105	44299.33576
Grassland	4563007.434	-203248.5344
Other	729032.2497	0
Shrubland	2127688.45	20305.32074
Urban	967584.0574	0
Woodland	12310503.9	-880403.9277
Yountville	69608.03547	-741.8893014
Coastal Marsh	1208.478931	28.37800771

Cultivated	3554.982897	15.38016942
Forest	5029.440407	74.65615078
Grassland	826.6667241	-36.83176214
Other	953.6504889	0
Shrubland	2212.623867	13.17395321
Urban	40716.12367	0
Woodland	15106.06848	-836.6458203
(blank)		
(blank)		
Grand Total	29305383.2	(980,791)

Carbon (MTCO2e) Stored per Jurisdiction

Row Labels	Sum of Carbon stored in vegetation (MT CO2e)	Sum of MTCO2e stored in soil	Total
American Canyon	127492.6785	244004.4536	
Coastal Marsh	4581.315992	12842.55538	17423.87
Cultivated	46.35803228	435.9351452	482.2932
Grassland	5888.880238	71186.50093	77075.38
Other	0	7529.920928	7529.921
Urban	116131.9438	151524.1079	267656.1
Woodland	844.1804431	485.4333144	1329.614
Calistoga	100534.1715	180371.4809	280905.7
Coastal Marsh	665.2971689	3115.00407	3780.301
Cultivated	1325.891116	26459.05653	27784.95
Forest	35002.68092	4787.327859	39790.01
Grassland	861.8062962	20234.92436	21096.73
Other	0	3787.948726	3787.949
Shrubland	274.512999	193.6430509	468.156
Urban	39711.33096	105426.3742	145137.7
Woodland	22692.65209	16367.20203	39059.85
Napa	504640.1997	826029.9042	1330670
Coastal Marsh	18860.41833	60070.33893	78930.76
Cultivated	2384.023558	26701.13582	29085.16
Grassland	4607.620341	70213.04505	74820.67
Other	0	23771.40864	23771.41
Shrubland	7.24061E-05	0.00036312	0.000436
Urban	413816.644	602364.0223	1016181
Woodland	64971.49334	42909.95309	107881.4
St Helena	140947.7571	271663.0301	412610.8
Coastal Marsh	1425.281086	3024.370105	4449.651
Cultivated	6478.204081	107228.8063	113707
Forest	34529.72803	6258.675306	40788.4
Grassland	1351.438864	25662.43518	27013.87
Other	0	4426.771901	4426.772
Shrubland	177.1996961	155.4242557	332.624
Urban	52924.72297	102516.7439	155441.5
Woodland	44061.1824	22389.80328	66450.99
Unincorporated	31745376.96	27713706.29	59459083
Coastal Marsh	472926.8667	1270744.842	1743672
Cultivated	301692.8597	4035617.259	4337310
Forest	9614179.798	1709528.105	11323708

Grassland	321004.1577	4563007.434	4884012
Other	0	729032.2497	729032.2
Shrubland	1825459.024	2127688.45	3953147
Urban	653010.7852	967584.0574	1620595
Woodland	18557103.47	12310503.9	30867607
Yountville	62625.12644	69608.03547	132233.2
Coastal Marsh	365.2264372	1208.478931	1573.705
Cultivated	323.7646316	3554.982897	3878.748
Forest	16043.28129	5029.440407	21072.72
Grassland	58.02925345	826.6667241	884.696
Other	0	953.6504889	953.6505
Shrubland	1141.318737	2212.623867	3353.943
Urban	25919.1508	40716.12367	66635.27
Woodland	18774.35529	15106.06848	33880.42

Carbon Sequestration by Land Cover

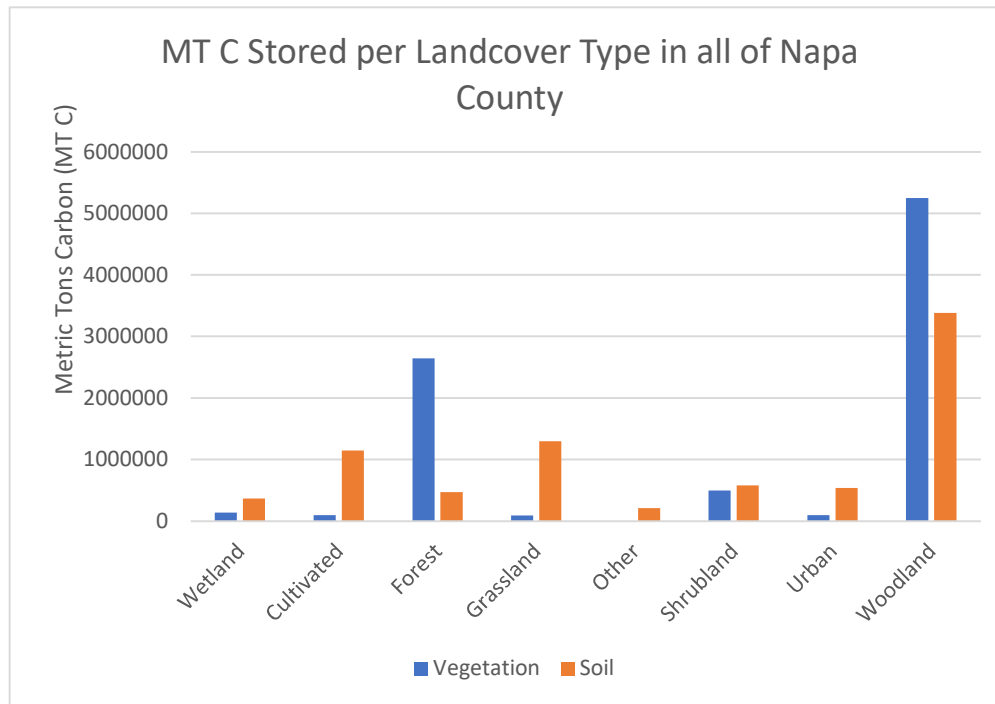
Vegetation/ Land Cover Type	Vegetation Carbon Sequestration	Soil Carbon Sequestration	Total Carbon Sequestration	Vegetation Carbon Sequestration	Soil Carbon Sequestration	Total Carbon Sequestration
	(MT CO ₂ e/year)	(MT CO ₂ e/year)	(MT CO ₂ e/year)	(MT CO ₂ e/ year)	(MT CO ₂ e/year)	(MT CO ₂ e/year)
	Minimum			Maximum		
Wetlands	0	5,652	5,652	0	71,865	71,865
Cultivated	0	-5,467	-5,467	0	35,142	35,142
Forest	238,887	26,048	264,935	315,529	64,168	379,697
Grassland	0	-334,950	-334,950	0	-88,747	-88,747
Other Lands'	0	0	0	0	0	0
Shrubland	45,101	14,549	59,650	90,202	26,188	116,389
Urban	71,808	0	71,808	76,891	0	76,891
Woodland	988,321	-1,044,513	-56,192	1,437,859	-733,804	704,055
Total	1,344,117	-1,338,680	5,437	1,920,481	-625,189	1,295,292

MT C stored in Vegetation and Soils within each jurisdiction and totals

Row Labels	Sum of Carbon stored in vegetation (MT C)	Sum of MT C stored in soil	Total
American Canyon	11,791	66,547	78,338
Coastal Marsh	1,249	3,503	4,752
Cultivated	14	119	133
Grassland	1,600	19,415	21,014
Other	-	2,054	2,054
Urban	8,538	41,325	49,863
Woodland	389	132	522
Calistoga	21,025	49,192	70,217
Coastal Marsh	181	850	1,031
Cultivated	400	7,216	7,617
Forest	9,546	1,306	10,852
Grassland	234	5,519	5,753
Other	-	1,033	1,033
Shrubland	75	53	128
Urban	2,920	28,753	31,672
Woodland	7,668	4,464	12,132
Napa	59,771	225,281	285,052
Coastal Marsh	5,144	16,383	21,527
Cultivated	727	7,282	8,009
Grassland	1,252	19,149	20,401
Other	-	6,483	6,483
Shrubland	0	0	0
Urban	30,425	164,281	194,706
Woodland	22,223	11,703	33,926
St Helena	30,481	74,090	104,571
Coastal Marsh	389	825	1,214
Cultivated	1,977	29,244	31,221
Forest	9,417	1,707	11,124
Grassland	367	6,999	7,366
Other	-	1,207	1,207
Shrubland	48	42	91
Urban	3,891	27,959	31,850
Woodland	14,392	6,106	20,498
Unincorporated	8,677,381	7,558,284	16,235,664
Coastal Marsh	128,980	346,567	475,547
Cultivated	92,055	1,100,623	1,192,678
Forest	2,622,248	466,235	3,088,483
Grassland	87,209	1,244,457	1,331,666
Other	-	198,827	198,827
Shrubland	497,912	580,279	1,078,191
Urban	48,012	263,887	311,898
Woodland	5,200,964	3,357,410	8,558,374
Yountville	12,219	18,984	31,203
Coastal Marsh	100	330	429
Cultivated	99	970	1,068
Forest	4,375	1,372	5,747
Grassland	16	225	241
Other	-	260	260
Shrubland	311	603	915
Urban	1,906	11,104	13,010
Woodland	5,412	4,120	9,532
Grand Total	8,782,189	7,992,377	16,774,566

Total MT C By Land Cover

	Vegetation	Soil	Total
Wetland	136,043	368,456	504,499
Cultivated	95,272	1,145,454	1,240,726
Forest	2,645,587	470,619	3,116,206
Grassland	90,678	1,295,763	1,386,441
Other	0	209,864	209,864
Shrubland	498,347	580,977	1,079,324
Urban	95,692	537,309	633,000
Woodland	5,251,048	3,383,935	8,634,983
	8,812,667	7,992,377	16,805,044



CALAND - Land Cover Lookup

Land Cover	Caland Land Cover Type
Developed	Urban
Wetland	Coastal Marsh
Grassland	Grassland
Other	Other
Coast Live Oak	Woodland
Mixed Oak	Woodland
Douglas-fir	Forest
Mixed Conifer	Forest
Riparian Woodland	Woodland
Mixed Shrubland	Shrubland
Coast Live Oak/Blue Oak	Woodland
Vineyard	Cultivated
Coastal Sage Scrub	Shrubland
Chamise Chaparral	Shrubland
Mixed Chaparral	Shrubland
Canyon Live Oak	Woodland
Blue Oak	Woodland
Douglas-fir/Ponderosa	Forest
Orchard	Cultivated
Coast Redwood	Forest
Valley Oak	Woodland
Oregon Oak	Woodland
Interior Live Oak	Woodland
Interior Live Oak/Blue Oak	Woodland
Black Oak	Woodland
Tanbark Oak	Woodland
Mixed-conifer	Forest

Land Cover	Carbon Storage Factor (MT CO2e/acre)	Carbon Storage Factor MT C/acre	Source
Agriculture			
Coast Redwood	448.8	122.4	https://resources.ca.gov/CNRALegacyFiles/wp-content/uploads/2016/04/CarbonResourcesFinal.pdf
Douglas-fir	264.3667	72.1	
Mixed Conifer	210.4667	57.4	
Douglas-fir/ponderosa pine	176.55	48.15	
Developed	12.79	3.448	https://escholarship.org/uc/item/8r83z5wb
Grassland	5.19	1.416	https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=db068c7c3fc0d3c9cc9b3a0f73a9745d96a25235
Coast Live Oak/Blue Oak	66.7732	18.21087273	https://californiaoaks.org/wp-content/uploads/2016/04/CarbonResourcesFinal.pdf
Blue Oak	45.9993	12.54526364	
Mixed Oak	106.837	29.13736364	
Black Oak	77.1602	21.04369091	
Interior Live Oak/Blue Oak	62.32165	16.99681364	
Coast Live Oak	87.5471	23.87648182	
Valley Oak	35.6124	9.712472727	
Canyon Live Oak	200.32	54.63272727	
Interior Live Oak	78.644	21.44836364	
Oregon Oak	90.5148	24.68585455	
Tanbark Oak	182.514	49.77654545	
Other			
Riparian woodland	100.9018	45.71	https://www.uvm.edu/seagrant/sites/default/files/files/publication/DybalaEtAl_2018_Carbon%20storage%20riparian%20forests.pdf

Land Cover	Carbon Storage Factor MT C/acre
Agriculture	
Coast Redwood	122.4
Douglas-fir	72.1
Mixed Conifer	57.4
Douglas-fir/ponderosa pine	48.15
Developed	3.448
Grassland	1.41
Coast Live Oak/Blue Oak	18.21087273
Blue Oak	12.54526364
Mixed Oak	29.13736364
Black Oak	21.04369091
Interior Live Oak/Blue Oak	16.99681364
Coast Live Oak	23.87648182
Valley Oak	9.712472727
Canyon Live Oak	54.63272727
Interior Live Oak	21.44836364
Oregon Oak	24.68585455
Tanbark Oak	49.77654545
Other	
Riparian woodland	45.71

Mixed shrubland
Chamise chaparral
Mixed chaparral
Coastal sage scrub

		https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=db068c7c3fc0d3c9cc9b3a0f73a9745d96a25235
59.32667	16.18744	
31.38667	8.560000909	https://bioone.org/journals/madro% %b1o/volume-
51.37	14.01	
23.50333	6.409999091	
		https://pubs.usgs.gov/pp/1797/pdf/PP1797 WholeDocument.pdf
27.5	7.5	
5.845	1.7869	https://dokumen.ti
14.01	3.9533	ps/documents/tech

Wetland
Vineyard
Orchard

Mixed shrubland
Chamise chaparral
Mixed chaparral
Coastal sage scrub

	16.18744
	8.560000909
	14.01
	6.409999091
	7.5
	1.7869
	3.9533

Wetland
Vineyard
Orchard

Land Type	Region	Ownership	Net Carbon Exchange Vegetation Mg C ha-1 y-1	Net Carbon Exchange Soil Mg C ha-1 y-1	Data Source	Vegetation Carbon Sequestration (MT CO2e/acre/yr) (Number)	Vegetation Carbon Sequestration (MT CO2e/acre/yr) (±Range)	Soil Carbon Sequestration (MT CO2e/acre/yr) (Number)	Soil Carbon Sequestration (MT CO2e/acre/yr) (±Range)	Vegetation Carbon Sequestration (MT CO2e/acre/yr) (Min)	Soil Carbon Sequestration (MT CO2e/acre/yr) (Min)	Vegetation Carbon Sequestration (MT CO2e/acre/yr) (Max)	Soil Carbon Sequestration (MT CO2e/acre/yr) (Max)
Water	All	All	NA1	0	[1]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ice	All	All	NA1	0	[1]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barren	All	All	0	0	[1]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sparse	All	All	0	0	[1]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Desert	All	All	0	0.76 ± 0.07	[1]	0.00	0.00	1.13	0.10	0.00	1.02	0.00	1.23
Shrubland	All	All	0.93 ± 0.313	0.28 ± 0.08	[1]	1.38	0.46	0.42	0.12	0.92	0.30	1.84	0.53
Grassland	All	All	0	-2.22 ± 1.29	[1]	0.00	0.00	-3.29	1.91	0.00	-5.21	0.00	-1.38
Savanna	All	All	3.67 ± 0.684	-2.69 ± 0.475	[1]	5.45	1.01	-3.99	0.70	4.44	-4.69	6.45	-3.29
Woodland	All	All	3.67 ± 0.684	-2.69 ± 0.475	[1]	5.45	1.01	-3.99	0.70	4.44	-4.69	6.45	-3.29
Meadow	All	All	0	0.95 ± 0.25	[1]	0.00	0.00	1.41	0.37	0.00	1.04	0.00	1.78
Coastal Marsh	All	All	0	1.44 ± 1.23	[1]	0.00	0.00	2.14	1.83	0.00	0.31	0.00	3.96
Fresh Marsh	All	All	NA1	3.37 ± 0.33	[1]	0.00	0.00	5.00	0.49	0.00	4.51	0.00	5.49
Cultivated	Non-Delta	All	0	0.19 ± 0.26	[1]	0.00	0.00	0.28	0.39	0.00	-0.10	0.00	0.67
Urban	Central Coast	All	1.45 ± 0.046	0	[1]	2.15	0.06	0.00	0.00	2.09	0.00	2.21	0.00
Urban	Central Valley	All	0.95 ± 0.0066	0	[1]	1.41	0.00	0.00	0.00	1.41	0.00	1.41	0.00
Urban	Delta	All	0.95 ± 0.0066	0	[1]	1.41	0.00	0.00	0.00	1.41	0.00	1.41	0.00
Urban	Deserts	All	0.20 ± 0.016	0	[1]	0.30	0.01	0.00	0.00	0.28	0.00	0.31	0.00
Urban	Eastside	All	0.70 ± 0.016	0	[1]	1.04	0.01	0.00	0.00	1.02	0.00	1.05	0.00
Urban	Klamath	All	0.70 ± 0.016	0	[1]	1.04	0.01	0.00	0.00	1.02	0.00	1.05	0.00
Urban	North Coast	All	1.96 ± 0.076	0	[1]	2.91	0.10	0.00	0.00	2.80	0.00	3.01	0.00
Urban	Sierra Cascades	All	0.70 ± 0.016	0	[1]	1.04	0.01	0.00	0.00	1.02	0.00	1.05	0.00
Forest	Central Coast	Other federal	1.82 ± 0.128,9	0.71 ± 0.3010	[1]	2.70	0.18	1.05	0.45	2.52	0.61	2.88	1.50
Forest	Central Coast	U.S. Bureau of Land Management	0.44 ± 0.268,9	0.71 ± 0.3010	[1]	0.65	0.39	1.05	0.45	0.27	0.61	1.04	1.50
Forest	Central Coast	U.S. Department of Defense	0.44 ± 0.268,9	0.71 ± 0.3010	[1]	0.65	0.39	1.05	0.45	0.27	0.61	1.04	1.50
Forest	Central Coast	Conservation Easement Protected	1.85 ± 0.428,9	0.71 ± 0.3010	[1]	2.75	0.62	1.05	0.45	2.12	0.61	3.37	1.50
Forest	Central Coast	Local Government	2.62 ± 0.828,9	0.71 ± 0.3010	[1]	3.89	1.22	1.05	0.45	2.67	0.61	5.10	1.50
Forest	Central Coast	National Park Service	0.44 ± 0.268,9	0.71 ± 0.3010	[1]	0.65	0.39	1.05	0.45	0.27	0.61	1.04	1.50
Forest	Central Coast	Private	2.03 ± 0.398,9	0.71 ± 0.3010	[1]	3.01	0.58	1.05	0.45	2.43	0.61	3.59	1.50
Forest	Central Coast	State Government	2.62 ± 0.828,9	0.71 ± 0.3010	[1]	3.89	1.22	1.05	0.45	2.67	0.61	5.10	1.50
Forest	Central Coast	USFS (non-wilderness)	0.74 ± 0.358,9	0.71 ± 0.3010	[1]	1.10	0.52	1.05	0.45	0.58	0.61	1.62	1.50
Forest	Central Valley	U.S. Bureau of Land Management	0	0.71 ± 0.3010	[1]	0.00	0.00	1.05	0.45	0.00	0.61	0.00	1.50
Forest	Central Valley	U.S. Department of Defense	0	0.71 ± 0.3010	[1]	0.00	0.00	1.05	0.45	0.00	0.61	0.00	1.50
Forest	Central Valley	Conservation Easement Protected	1.26 ± 0.808,9	0.71 ± 0.3010	[1]	1.87	1.19	1.05	0.45	0.68	0.61	3.06	1.50
Forest	Central Valley	Local Government	0.79 ± 0.958,9	0.71 ± 0.3010	[1]	1.17	1.41	1.05	0.45	-0.24	0.61	2.58	1.50
Forest	Central Valley	Private	1.15 ± 0.748,9	0.71 ± 0.3010	[1]	1.71	1.10	1.05	0.45	0.61	0.61	2.80	1.50
Forest	Central Valley	State Government	0.79 ± 0.958,9	0.71 ± 0.3010	[1]	1.17	1.41	1.05	0.45	-0.24	0.61	2.58	1.50
Forest	Delta	U.S. Bureau of Land Management	0.00 ± 0.002	0.71 ± 0.3010	[1]	0.00	0.00	1.05	0.45	0.00	0.61	0.00	1.50
Forest	Delta	U.S. Department of Defense	0	0.71 ± 0.3010	[1]	0.00	0.00	1.05	0.45	0.00	0.61	0.00	1.50
Forest	Delta	Conservation Easement Protected	1.26 ± 0.808,9	0.71 ± 0.3010	[1]	1.87	1.19	1.05	0.45	0.68	0.61	3.06	1.50
Forest	Delta	Local Government	0.79 ± 0.958,9	0.71 ± 0.3010	[1]	1.17	1.41	1.05	0.45	-0.24	0.61	2.58	1.50
Forest	Delta	Private	1.15 ± 0.748,9	0.71 ± 0.3010	[1]	1.71	1.10	1.05	0.45	0.61	0.61	2.80	1.50
Forest	Delta	State Government	0.79 ± 0.958,9	0.71 ± 0.3010	[1]	1.17	1.41	1.05	0.45	-0.24	0.61	2.58	1.50
Forest	Deserts	U.S. Bureau of Land Management	0.05 ± 0.038,9	0.71 ± 0.3010	[1]	0.07	0.04	1.05	0.45	0.03	0.61	0.12	1.50
Forest	Deserts	U.S. Department of Defense	0.05 ± 0.038,9	0.71 ± 0.3010	[1]	0.07	0.04	1.05	0.45	0.03	0.61	0.12	1.50
Forest	Deserts	Conservation Easement Protected	0.32 ± 0.148,9	0.71 ± 0.3010	[1]	0.47	0.21	1.05	0.45	0.27	0.61	0.68	1.50
Forest	Deserts	Local Government	0.41 ± 0.358,9	0.71 ± 0.3010	[1]	0.61	0.52	1.05	0.45	0.09	0.61	1.13	1.50
Forest	Deserts	National Park Service	0.05 ± 0.038,9	0.71 ± 0.3010	[1]	0.07	0.04	1.05	0.45	0.03	0.61	0.12	1.50
Forest	Deserts	Private	0.27 ± 0.118,9	0.71 ± 0.3010	[1]	0.40	0.16	1.05	0.45	0.24	0.61	0.56	1.50
Forest	Deserts	State Government	0.41 ± 0.358,9	0.71 ± 0.3010	[1]	0.61	0.52	1.05	0.45	0.09	0.61	1.13	1.50
Forest	Deserts	USFS (non-wilderness)	0.65 ± 0.158,9	0.71 ± 0.3010	[1]	0.96	0.22	1.05	0.45	0.74	0.61	1.19	1.50
Forest	Eastside	U.S. Bureau of Land Management	0.20 ± 0.058,9	0.71 ± 0.3010	[1]	0.30	0.07	1.05	0.45	0.22	0.61	0.37	1.50
Forest	Eastside	U.S. Department of Defense	0.20 ± 0.058,9	0.71 ± 0.3010	[1]	0.30	0.07	1.05	0.45	0.22	0.61	0.37	1.50
Forest	Eastside	Conservation Easement Protected	0.50 ± 0.218,9	0.71 ± 0.3010	[1]	0.74	0.31	1.05	0.45	0.43	0.61	1.05	1.50
Forest	Eastside	Local Government	1.32 ± 1.528,9	0.71 ± 0.3010	[1]	1.96	2.26	1.05	0.45	-0.30	0.61	4.21	1.50
Forest	Eastside	National Park Service	0.20 ± 0.058,9	0.71 ± 0.3010	[1]	0.30	0.07	1.05	0.45	0.22	0.61	0.37	1.50
Forest	Eastside	Private	1.21 ± 0.308,9	0.71 ± 0.3010	[1]	1.80	0.45	1.05	0.45	1.35	0.61	2.24	1.50
Forest	Eastside	State Government	1.32 ± 1.528,9	0.71 ± 0.3010	[1]	1.96	2.26	1.05	0.45	-0.30	0.61	4.21	1.50
Forest	Eastside	USFS (non-wilderness)	0.74 ± 0.118,9	0.71 ± 0.3010	[1]	1.10	0.16	1.05	0.45	0.93	0.61	1.26	1.50
Forest	Klamath	U.S. Bureau of Land Management	3.00 ± 0.858,9	0.71 ± 0.3010	[1]	4.45	1.26	1.05	0.45	3.19	0.61	5.71	1.50
Forest	Klamath	U.S. Department of Defense	3.00 ± 0.858,9	0.71 ± 0.3010	[1]	4.45	1.26	1.05	0.45	3.19	0.61	5.71	1.50
Forest	Klamath	Conservation Easement Protected	2.38 ± 0.308,9	0.71 ± 0.3010	[1]	3.53	0.45	1.05	0.45	3.09	0.61	3.98	1.50
Forest	Klamath	Local Government	1.36 ± 0.798,9	0.71 ± 0.3010	[1]	2.02	1.17	1.05	0.45	0.85	0.61	3.19	1.50
Forest	Klamath	National Park Service	3.00 ± 0.858,9	0.71 ± 0.3010	[1]	4.45	1.26	1.05	0.45	3.19	0.61	5.71	1.50

Forest	Klamath	Private	2.74 ± 0.248,9	0.71 ± 0.3010	[1]	4.07	0.36	1.05	0.45	3.71	0.61	4.42	1.50
Forest	Klamath	State Government	1.36 ± 0.798,9	0.71 ± 0.3010	[1]	2.02	1.17	1.05	0.45	0.85	0.61	3.19	1.50
Forest	North Coast	USFS (non-wilderness)	2.61 ± 0.178,9	0.71 ± 0.3010	[1]	3.87	0.25	1.05	0.45	3.62	0.61	4.13	1.50
Forest	North Coast	U.S. Bureau of Land Management	5.18 ± 1.888,9	0.71 ± 0.3010	[1]	7.69	2.79	1.05	0.45	4.90	0.61	10.48	1.50
Forest	North Coast	U.S. Department of Defense	5.18 ± 1.888,9	0.71 ± 0.3010	[1]	7.69	2.79	1.05	0.45	4.90	0.61	10.48	1.50
Forest	North Coast	Conservation Easement Protected	4.11 ± 0.628,9	0.71 ± 0.3010	[1]	6.10	0.92	1.05	0.45	5.18	0.61	7.02	1.50
Forest	North Coast	Local Government	5.98 ± 1.538,9	0.71 ± 0.3010	[1]	8.87	2.27	1.05	0.45	6.60	0.61	11.14	1.50
Forest	North Coast	National Park Service	5.18 ± 1.888,9	0.71 ± 0.3010	[1]	7.69	2.79	1.05	0.45	4.90	0.61	10.48	1.50
Forest	North Coast	Private	4.91 ± 0.458,9	0.71 ± 0.3010	[1]	7.29	0.67	1.05	0.45	6.62	0.61	7.95	1.50
Forest	North Coast	State Government	5.98 ± 1.538,9	0.71 ± 0.3010	[1]	8.87	2.27	1.05	0.45	6.60	0.61	11.14	1.50
Forest	North Coast	USFS (non-wilderness)	7.94 ± 5.158,9	0.71 ± 0.3010	[1]	11.78	7.64	1.05	0.45	4.14	0.61	19.42	1.50
Forest	Sierra Cascades	U.S. Bureau of Land Management	1.48 ± 0.188,9	0.71 ± 0.3010	[1]	2.20	0.27	1.05	0.45	1.93	0.61	2.46	1.50
Forest	Sierra Cascades	U.S. Department of Defense	1.48 ± 0.188,9	0.71 ± 0.3010	[1]	2.20	0.27	1.05	0.45	1.93	0.61	2.46	1.50
Forest	Sierra Cascades	Conservation Easement Protected	1.20 ± 0.128,9	0.71 ± 0.3010	[1]	1.78	0.18	1.05	0.45	1.60	0.61	1.96	1.50
Forest	Sierra Cascades	Local Government	2.55 ± 0.828,9	0.71 ± 0.3010	[1]	3.78	1.22	1.05	0.45	2.57	0.61	5.00	1.50
Forest	Sierra Cascades	National Park Service	1.48 ± 0.188,9	0.71 ± 0.3010	[1]	2.20	0.27	1.05	0.45	1.93	0.61	2.46	1.50
Forest	Sierra Cascades	Private	2.09 ± 0.148,9	0.71 ± 0.3010	[1]	3.10	0.21	1.05	0.45	2.89	0.61	3.31	1.50
Forest	Sierra Cascades	State Government	2.55 ± 0.828,9	0.71 ± 0.3010	[1]	3.78	1.22	1.05	0.45	2.57	0.61	5.00	1.50
Forest	Sierra Cascades	USFS (non-wilderness)	2.45 ± 0.118,9	0.71 ± 0.3010	[1]	3.64	0.16	1.05	0.45	3.47	0.61	3.80	1.50
Forest	South Coast	U.S. Bureau of Land Management	0.05 ± 0.038,9	0.71 ± 0.3010	[1]	0.07	0.04	1.05	0.45	0.03	0.61	0.12	1.50
Forest	South Coast	U.S. Department of Defense	0.05 ± 0.038,9	0.71 ± 0.3010	[1]	0.07	0.04	1.05	0.45	0.03	0.61	0.12	1.50
Forest	South Coast	Conservation Easement Protected	0.32 ± 0.148,9	0.71 ± 0.3010	[1]	0.47	0.21	1.05	0.45	0.27	0.61	0.68	1.50
Forest	South Coast	Local Government	0.41 ± 0.358,9	0.71 ± 0.3010	[1]	0.61	0.52	1.05	0.45	0.09	0.61	1.13	1.50
Forest	South Coast	National Park Service	0.05 ± 0.038,9	0.71 ± 0.3010	[1]	0.07	0.04	1.05	0.45	0.03	0.61	0.12	1.50
Forest	South Coast	Private	0.27 ± 0.118,9	0.71 ± 0.3010	[1]	0.40	0.16	1.05	0.45	0.24	0.61	0.56	1.50
Forest	South Coast	State Government	0.41 ± 0.358,9	0.71 ± 0.3010	[1]	0.61	0.52	1.05	0.45	0.09	0.61	1.13	1.50
Forest	South Coast	USFS (non-wilderness)	0.65 ± 0.158,9	0.71 ± 0.3010	[1]	0.96	0.22	1.05	0.45	0.74	0.61	1.19	1.50
Seagrass	Ocean	Other Federal	NA1	0.45 ± 0.45	[1]	0.00	0.00	0.67	0.67	0.00	0.00	0.00	1.34
Other					[1]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

[1] CALAND v3 Technical Documentation (Appx B)
https://data.cnra.ca.gov/dataset/bb90d8db-39ca-4972-b19a-b613c1575cb0/resource/66e1ec60-0cff-4bda-95bb-e34816e1c68b/download/caland_technical_documentation_v3_june2019.pdf

Cultivated	Delta	All	0	-2.82 ± 2.51	[1]	0.00	0.00	-4.18	3.72	0.00	-7.91	0.00	-0.46
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Table 5.3. Minimum and maximum estimates of carbon stored in the Western United States in 2005, by carbon pool for each ecoregion and ecosystem.

[Only soil organic carbon (SOC) in the top 20 cm of the soil layer was calculated. km2, square kilometers; max, maximum; min, minimum; TgC, teragrams of carbon or 1012 grams of carbon].

[Only soil organic carbon (SOC) in the top 20 cm of the soil layer was calculated. km2, square kilometers; max, maximum; min, minimum; TgC, teragrams of carbon or 1012 grams of carbon].											MT C/acre	MT C/acre	MT C/acre	MT C/acre
Ecoregion	Ecosystem	Area (km2)	Live biomass (TgC)		Soil (TgC)		Dead biomass (TgC)		Total (TgC)		Vegetation (min)	Vegetation (max)	Soil (min)	Soil (max)
			Min	Max	Min	Max	Min	Max	Min	Max				
Western Cordillera	Forests	546,533	3,304.6	3,689.4	1,599.5	1,887.7	1,398.0	2,348.2	6,648.2	7,557.6	35	45	12	14
Western Cordillera	Grasslands/shrublands	277,874	71.5	148.6	629.1	718.9	0.0	222.5	745.8	1,090.0	1	5	9	10
Western Cordillera	Agricultural lands	16,722	0.1	2.4	64.4	65.3	0.0	8.1	67.7	72.6	0	3	16	16
Western Cordillera	Wetlands	3,656	4.7	5.2	13.8	18.4	2.4	5.7	23.2	28.8	8	12	15	20
Western Cordillera	Other lands	27,469	0.2	0.4	1.9	43.9	0.0	0.7	2.9	44.1	0	0	0	6
Western Cordillera	Total	872,253	3,381.1	3,846.0	2,308.7	2,734.2	1,400.4	2,585.2	7,487.7	8,793.1	22	30	11	13
Marine West Coast Forest	Forests	64,601	696.0	829.8	398.7	416.4	235.8	336.2	1,347.6	1,510.5	58	73	25	26
Marine West Coast Forest	Grasslands/shrublands	4,542	1.7	4.0	19.1	23.4	0.0	6.0	20.7	32.7	2	9	17	21
Marine West Coast Forest	Agricultural lands	10,418	0.1	1.5	61.1	64.6	0.0	6.0	65.9	67.2	0	3	24	25
Marine West Coast Forest	Wetlands	588	2.3	2.8	3.0	3.8	0.4	1.0	5.6	7.1	19	26	21	26
Marine West Coast Forest	Other lands	15,262	0.0	1.0	4.0	28.4	0.0	2.2	7.0	28.4	-	1	1	8
Marine West Coast Forest	Total	95,411	700.1	839.0	485.8	536.6	236.2	351.5	1,446.9	1,645.9	40	50	21	23
Cold Deserts	Forests	97,180	269.4	293.6	179.6	213.5	131.7	222.2	638.8	685.1	17	21	7	9
Cold Deserts	Grasslands/shrublands	804,658	275.1	371.8	960.1	1,191.0	0.0	519.6	1,370.9	2,066.1	1	4	5	6
Cold Deserts	Agricultural lands	81,191	0.1	12.9	222.0	254.3	0.0	41.9	234.9	296.3	0	3	11	13
Cold Deserts	Wetlands	4,635	2.6	3.7	14.9	20.0	1.9	5.3	21.0	27.9	4	8	13	17
Cold Deserts	Other lands	68,392	0.0	0.3	2.7	49.0	0.0	0.3	3.0	49.0	-	0	0	3
Cold Deserts	Total	1,056,055	547.2	682.4	1,379.3	1,727.9	133.6	789.4	2,268.6	3,124.4	3	6	5	7
Warm Deserts	Forests	8,084	20.1	22.7	7.3	10.4	8.7	19.8	39.9	49.8	14	21	4	5
Warm Deserts	Grasslands/shrublands	403,390	120.4	193.5	300.3	418.1	0.0	204.1	470.7	815.7	1	4	3	4
Warm Deserts	Agricultural lands	11,334	0.0	2.0	10.7	25.4	0.0	8.6	12.6	35.5	-	4	4	9
Warm Deserts	Wetlands	326	0.2	0.3	0.3	0.5	0.0	0.6	0.5	1.1	2	11	4	6
Warm Deserts	Other lands	42,150	0.0	0.2	0.8	18.4	0.0	0.2	0.9	18.9	-	0	0	2
Warm Deserts	Total	465,285	140.6	218.6	319.4	472.8	8.8	233.3	524.6	921.0	1	4	3	4
Mediterranean California	Forests	29,945	250.9	296.0	56.9	85.7	88.3	119.0	424.9	469.8	46	56	8	12
Mediterranean California	Grasslands/shrublands	74,294	28.1	37.2	125.9	179.9	0.0	62.9	154.0	279.8	2	5	7	10
Mediterranean California	Agricultural lands	41,046	0.0	7.4	94.2	146.6	0	35.1	101.6	188.4	-	4	9	14
Mediterranean California	Wetlands	910	0.5	0.9	4.4	5.0	0.4	1.5	5.8	7.0	4	11	20	22
Mediterranean California	Other lands	23,259	0.0	0.4	3.9	31.2	0.0	0.3	4.3	31.2	-	0	1	5
Mediterranean California	Total	169,455	279.5	341.8	285.3	448.4	88.7	218.8	690.5	976.3	9	13	7	11

Source: USGS 2012. https://pubs.usgs.gov/pp/1797/pdf/PP1797_WholeDocument.pdf

Map Unit Symbol		Component Name - Local Phase				g/cc		g/cc		g/cc		pct		pct		pct		Soil Carbon Calculations (from Carbon Cycle Institute)					
						Moist Bulk Density Range (low		Moist Bulk Density Range (High		Moist Bulk Density Range (High		Organic Matter Range (Low		Organic Matter Range (High		Organic matter Range (High							
AREAS	SYMBOL	MUNAME	horizon depth low	horizon depth high	Horizon Thickness (in)	Moist bulk density low	Med Density	moist bulk density high	organic matter low	Med OM	organic matter high	depth interval (inches)	depth interval (cm)	soil mass per area (g/cm2)	soil mass per area (g/acre)	soil mass per area (metric ton/acre)	mass of soil organic matter per acre (metric ton OM per acre)	mass of soil carbon per acre (metric ton C/acre)	mass of soil carbon per acre (metric ton CO2e/acre)				
CA550	100:	Aiken	0	8	8.00	1.4		1.45	1.5	2	5	8	8.00	20.32	29.5	1192370546	1192	17.3	10.0	36.8			
CA550	100:	Aiken	8	14	6.00	1.4		1.45	1.5	0.5	0.75	1	6.00	15.24	22.1	894277909	894	13.0	7.5	27.6			
CA550	100:	Aiken	14	44	30.00	1.35		1.4	1.45	0.5	0.75	1	30.00	76.2	106.7	4317203700	4317	60.4	35.1	128.5			
CA550	101:	Aiken	0	8	8.00	1.4		1.45	1.5	2	5	8	8.00	20.32	29.5	1192370546	1192	17.3	10.0	36.8			
CA550	101:	Aiken	8	14	6.00	1.4		1.45	1.5	0.5	0.75	1	6.00	15.24	22.1	894277909	894	13.0	7.5	27.6			
CA550	101:	Aiken	14	44	30.00	1.35		1.4	1.45	0.5	0.75	1	30.00	76.2	106.7	4317203700	4317	60.4	35.1	128.5			
CA550	102:	Aiken	0	8	8.00	1.4		1.45	1.5	2	5	8	8.00	20.32	29.5	1192370546	1192	17.3	10.0	36.8			
CA550	102:	Aiken	8	14	6.00	1.4		1.45	1.5	0.5	0.75	1	6.00	15.24	22.1	894277909	894	13.0	7.5	27.6			
CA550	102:	Aiken	14	44	30.00	1.35		1.4	1.45	0.5	0.75	1	30.00	76.2	106.7	4317203700	4317	60.4	35.1	128.5			
CA550	103:	Bale	0	24	24.00	1.4		1.45	1.5	1	2	3	24.00	60.96	88.4	3577111637	3577	51.9	30.1	110.3			
CA550	103:	Bale	24	60	36.00	1.4		1.45	1.5	0.5	0.75	1	36.00	91.44	132.6	5365667456	5366	77.8	45.1	165.5			
CA550	104:	Bale	0	24	24.00	1.3		1.375	1.45	1	2	3	24.00	60.96	83.8	3392088622	3392	46.6	27.1	99.2			
CA550	104:	Bale	24	60	36.00	1.4		1.45	1.5	0.5	0.75	1	36.00	91.44	132.6	5365667456	5366	77.8	45.1	165.5			
CA550	105:	Bale	0	24	24.00	1.3		1.375	1.45	1	2	3	24.00	60.96	83.8	3392088622	3392	46.6	27.1	99.2			
CA550	105:	Bale	24	60	36.00	1.4		1.45	1.5	0.5	0.75	1	36.00	91.44	132.6	5365667456	5366	77.8	45.1	165.5			
CA550	106:	Bale	0	24	24.00	1.4		1.45	1.5	1	2	3	24.00	60.96	88.4	3577111637	3577	51.9	30.1	110.3			
CA550	106:	Bale	24	60	36.00	1.4		1.45	1.5	0.5	0.75	1	36.00	91.44	132.6	5365667456	5366	77.8	45.1	165.5			
CA550	106:	Bale	0	24	24.00	1.3		1.375	1.45	1	2	3	24.00	60.96	83.8	3392088622	3392	46.6	27.1	99.2			
CA550	106:	Bale	24	60	36.00	1.4		1.45	1.5	1	3	5	36.00	91.44	132.6	5365667456	5366	77.8	45.1	165.5			
CA550	107:	Boomer	0	2	2.00	0.25		0.27	0.29	50	60	70	2.00	5.08	1.4	55506905	56	0.1	0.1	0.3			
CA550	107:	Boomer	2	6	4.00	1.18		1.265	1.35	3	4.5	6	4.00	10.16	12.9	520120255	520	6.6	3.8	14.0			
CA550	107:	Boomer	6	13	7.00	1.37		1.385	1.4	2	2.5	3	7.00	17.78	24.6	996554521	997	13.8	8.0	29.4			
CA550	107:	Boomer	13	24	11.00	1.31		1.41	1.51	0.6	0.8	1	11.00	27.94	39.4	1594281652	1594	22.5	13.0	47.8			
CA550	107:	Boomer	24	36	12.00	1.49		1.525	1.56	0.3	0.4	0.5	12.00	30.48	46.5	1881067327	1881	28.7	16.6	61.0			
CA550	107:	Boomer	36	46	10.00	1.51		1.52	1.53	0.2	0.25	0.3	10.00	25.4	38.6	1562416577	1562	23.7	13.8	50.5			
CA550	108:	Boomer	0	2	2.00	0.25		0.27	0.29	50	60	70	2.00	5.08	1.4	55506905	56	0.1	0.1	0.3			
CA550	108:	Boomer	2	6	4.00	1.18		1.265	1.35	3	4.5	6	4.00	10.16	12.9	520120255	520	6.6	3.8	14.0			
CA550	108:	Boomer	6	13	7.00	1.37		1.385	1.4	2	2.5	3	7.00	17.78	24.6	996554521	997	13.8	8.0	29.4			
CA550	108:	Boomer	13	24	11.00	1.31		1.41	1.51	0.6	0.8	1	11.00	27.94	39.4	1594281652	1594	22.5	13.0	47.8			
CA550	108:	Boomer	24	36	12.00	1.49		1.525	1.56	0.3	0.4	0.5	12.00	30.48	46.5	1881067327	1881	28.7	16.6	61.0			
CA550	108:	Boomer	36	46	10.00	1.51		1.52	1.53	0.2	0.25	0.3	10.00	25.4	38.6	1562416577	1562	23.7	13.8	50.5			
CA550	109:	Boomer	0	2	2.00	0.25		0.27	0.29	50	60	70	2.00	5.08	1.4	55506905	56	0.1	0.1	0.3			
CA550	109:	Boomer	2	6	4.00	1.18		1.265	1.35	3	4.5	6	4.00	10.16	12.9	520120255	520	6.6	3.8	14.0			
CA550	109:	Boomer	6	13	7.00	1.37		1.385	1.4	2	2.5	3	7.00	17.78	24.6	996554521	997	13.8	8.0	29.4			
CA550	109:	Boomer	13	24	11.00	1.31		1.41	1.51	0.6	0.8	1	11.00	27.94	39.4	1594281652	1594	22.5	13.0	47.8			
CA550	109:	Boomer	24	36	12.00	1.49		1.525	1.56	0.3	0.4	0.5	12.00	30.48	46.5	1881067327	1881	28.7	16.6	61.0			
CA550	109:	Boomer	36	46	10.00	1.51		1.52	1.53	0.2	0.25	0.3	10.00	25.4	38.6	1562416577	1562	23.7	13.8	50.5			
CA550	110:	Boomer	0	4	4.00	1.3		1.375	1.45	1	2	3	4.00	10.16	14.0	565348104	565	7.8	4.5	16.5			
CA550	110:	Boomer	4	44	40.00	1.3		1.375	1.45	0.5	0.75	1	40.00	101.6	139.7	5653481036	5653	77					

CA550	117:	Clear Lake	0	18	18.00	1.5	1.55	1.6	1	1.5	2	18.00	45.72	70.9	2867856744	2868	44.5	25.8	94.5
CA550	117:	Clear Lake	18	69	51.00	1.25	1.325	1.4	0.5	0.75	1	51.00	129.54	171.6	6946072382	6946	92.0	53.4	195.7
CA550	118:	Cole	0	8	8.00	1.26	1.36	1.46	2	3.5	5	8.00	20.32	27.6	1118361339	1118	15.2	8.8	32.3
CA550	118:	Cole	8	18	10.00	1.31	1.345	1.38	2	3	4	10.00	25.4	34.2	1382533090	1383	18.6	10.8	39.5
CA550	118:	Cole	18	32	14.00	1.27	1.32	1.37	1.5	2.25	3	14.00	35.56	46.9	1899569628	1900	25.1	14.5	53.3
CA550	118:	Cole	32	41	9.00	1.41	1.445	1.48	0.8	1	1.2	9.00	22.86	33.0	1336791289	1337	19.3	11.2	41.1
CA550	118:	Cole	41	48	7.00	1.42	1.445	1.47	0.5	0.65	0.8	7.00	17.78	25.7	1039726558	1040	15.0	8.7	32.0
CA550	118:	Cole	48	60	12.00	1.42	1.45	1.48	0.3	0.5	0.7	12.00	30.48	44.2	1788555819	1789	25.9	15.0	55.2
CA550	118:	Cole	60	64	4.00	1.37	1.405	1.44	0.2	0.35	0.5	4.00	10.16	14.3	577682971	578	8.1	4.7	17.3
CA550	119:	Cole	0	8	8.00	1.26	1.36	1.46	2	3.5	5	8.00	20.32	27.6	1118361339	1118	15.2	8.8	32.3
CA550	119:	Cole	8	18	10.00	1.31	1.345	1.38	2	3	4	10.00	25.4	34.2	1382533090	1383	18.6	10.8	39.5
CA550	119:	Cole	18	32	14.00	1.27	1.32	1.37	1.5	2.25	3	14.00	35.56	46.9	1899569628	1900	25.1	14.5	53.3
CA550	119:	Cole	32	41	9.00	1.41	1.445	1.48	0.8	1	1.2	9.00	22.86	33.0	1336791289	1337	19.3	11.2	41.1
CA550	119:	Cole	41	48	7.00	1.42	1.445	1.47	0.5	0.65	0.8	7.00	17.78	25.7	1039726558	1040	15.0	8.7	32.0
CA550	119:	Cole	48	60	12.00	1.42	1.45	1.48	0.3	0.5	0.7	12.00	30.48	44.2	1788555819	1789	25.9	15.0	55.2
CA550	119:	Cole	60	64	4.00	1.37	1.405	1.44	0.2	0.35	0.5	4.00	10.16	14.3	577682971	578	8.1	4.7	17.3
CA550	120:	Contra Costa	0	5	5.00	1.45	1.5	1.55	0.5	0.75	1	5.00	12.7	19.1	770929232	771	11.6	6.7	24.6
CA550	120:	Contra Costa	5	22	17.00	1.3	1.375	1.45	0.5	0.75	1	17.00	43.18	59.4	2402729440	2403	33.0	19.2	70.3
CA550	120:	Contra Costa	22	34	12.00	1.3	1.375	1.45	0.5	0.75	1	12.00	30.48	41.9	1696044311	1696	23.3	13.5	49.6
CA550	121:	Contra Costa	0	5	5.00	1.45	1.5	1.55	0.5	0.75	1	5.00	12.7	19.1	770929232	771	11.6	6.7	24.6
CA550	121:	Contra Costa	5	34	29.00	1.3	1.375	1.45	0.5	0.75	1	29.00	73.66	101.3	4098773751	4099	56.4	32.7	119.9
CA550	122:	Coombs	0	14	14.00	1.45	1.5	1.55	0.5	0.75	1	14.00	35.56	53.3	2158601850	2159	32.4	18.8	68.9
CA550	122:	Coombs	14	54	40.00	1.4	1.45	1.5	0.5	0.75	1	40.00	101.6	147.3	5961852729	5962	86.4	50.1	183.8
CA550	122:	Coombs	54	60	6.00	1.55	1.6	1.65	0.1	0.3	0.5	6.00	15.24	24.4	986789417	987	15.8	9.2	33.6
CA550	123:	Coombs	0	14	14.00	1.45	1.5	1.55	0.5	0.75	1	14.00	35.56	53.3	2158601850	2159	32.4	18.8	68.9
CA550	123:	Coombs	14	54	40.00	1.4	1.45	1.5	0.5	0.75	1	40.00	101.6	147.3	5961852729	5962	86.4	50.1	183.8
CA550	123:	Coombs	54	60	6.00	1.55	1.6	1.65	0.1	0.3	0.5	6.00	15.24	24.4	986789417	987	15.8	9.2	33.6
CA550	124:	Cortina	0	11	11.00	1.46	1.505	1.55	0.8	1.4	2	11.00	27.94	42.0	1701697792	1702	25.6	14.9	54.5
CA550	124:	Cortina	11	21	10.00	1.54	1.56	1.58	0.5	0.65	0.8	10.00	25.4	39.6	1603532803	1604	25.0	14.5	53.2
CA550	124:	Cortina	21	32	11.00	1.59	1.595	1.6	0.35	0.35	0.5	11.00	27.94	44.6	1803460450	1803	28.8	16.7	61.2
CA550	124:	Cortina	32	60	28.00	1.6	1.635	1.67	0.1	0.2	0.3	28.00	71.12	116.3	4705752033	4706	76.9	44.6	163.6
CA550	125:	Cortina	0	21	21.00	1.45	1.5	1.55	0.5	0.75	1	21.00	53.34	80.0	3237902775	3238	48.6	28.2	103.3
CA550	125:	Cortina	21	60	39.00	1.45	1.5	1.55	0.5	0.75	1	39.00	99.06	148.6	6013248011	6013	90.2	52.3	191.8
CA550	126:	Diablo	0	5	5.00	1.18	1.28	1.38	1	2.5	4	5.00	12.7	16.3	657859611	658	8.4	4.9	17.9
CA550	126:	Diablo	5	18	13.00	1.18	1.28	1.38	1	2.5	4	13.00	33.02	42.3	1710434990	1710	21.9	12.7	46.6
CA550	126:	Diablo	18	30	12.00	1.24	1.345	1.45	0	0.5	1	12.00	30.48	41.0	1659039708	1659	22.3	12.9	47.5
CA550	126:	Diablo	30	39	9.00	1.24	1.345	1.45	0	0.5	1	9.00	22.86	30.7	1244279781	1244	16.7	9.7	35.6
CA550	126:	Diablo	39	53	14.00	1.31	1.365	1.42	0	0	1	14.00	35.56	48.5	1964327684	1964	26.8	15.6	57.0
CA550	127:	Diablo	0	5	5.00	1.18	1.28	1.38	1	2.5	4	5.00	12.7	16.3	657859611	658	8.4	4.9	17.9
CA550	127:	Diablo	5	18	13.00	1.18	1.28	1.38	1	2.5	4	13.00	33.02	42.3	1710434990	1710	21.9	12.7	46.6
CA550	127:	Diablo	18	30	12.00	1.24	1.345	1.45	0	0.5	1	12.00	30.48	41.0	1659039708	1659	22.3	12.9	47.5
CA550	127:	Diablo	30	39	9.00	1.24	1.345	1.45	0	0.5	1	9.00	22.86	30.7	1244279781	1244	16.7	9.7	35.6
CA550	127:	Diablo	39	53	14.00	1.31	1.365	1.42	0	0	1	14.00	35.56	48.5	1964327684	1964	26.8	15.6	57.0
CA550	128:	Diablo	0	60	60.00	1.25	1.3	1.35	1	2.5	4	60.00	152.4	198.1	8017664015	8018	104.2	60.5	221.7
CA550	129:	Diablo	0	5	5.00	1.18	1.28	1.38	1	2.5	4	5.00	12.7	16.3	657859611	658	8.4	4.9	17.9
CA550	129:	Diablo	5	18	13.00	1.18	1.28	1.38	1	2.5	4	13.00	33.02	42.3	1710434990	1710	21.9	12.7	46.6
CA550	129:	Diablo	18	30	12.00	1.24	1.345	1.45	0	0.5	1	12.00	30.48	41.0	1659039708	1659	22.3	12.9	47.5
CA550	129:	Diablo	30	39	9.00	1.24	1.345	1.45	0	0.5	1	9.00	22.86	30.7	1244279781	1244	16.7	9.7	35.6
CA550	129:	Diablo	39	53	14.00	1.31	1.365	1.42	0	0	1	14.00	35.56	48.5	1964327684	1964	26.8	15.6	57.0
CA550	129:	Collayomi	0	15	15.00	1.45	1.5	1.55	0	1	2	15.00	38.1	57.2	2312787697	2313	34.7	20.1	73.8
CA550	129:	Collayomi	15	60	45.00	1.4	1.475	1.55	0	0.25	0.5	45.00	114.3	168.6	6822723705	6823	100.6	58.4	214.0
CA550	129:	Whispering	0	5	5.00	1.45	1.5	1.55	1	1.5	2	5.00	12.7	19.1	770929232	771	11.6	6.7	24.6
CA550	129:	Whispering	5	15	10.00	1.45	1.5	1.55	1	1.5	2	10.00	25.4	38.1	1541858464	1542	23.1	13.4	49.2
CA550	129:	Whispering	15	26	11.00	1.4	1.475	1.55	0.5	0.75	1	11.00	27.94	41.2	1667776906	1668	24.6	14.3	52.3
CA550	130:	Egbert	0	33	33.00	1.4	1.45	1.5	2	6	10	33.00	83.82	121.5	4918528501	4919	71.3	41.4	151.7
CA550	130:	Egbert	33	60	27.00	1.3	1.35	1.4	0.5	0.75	1	27.00	68.58	92.6	3746716068	3747	50.6	29.3	107.6
CA550	131:	Fagan	0	16	16.00	1.4	1.45	1.5	1	2	3	16.00	40.64	58.9	2384741092	2385	34.6	20.1	73.5
CA550	131:	Fagan	16	28	12.00	1.4	1.45	1.5	0.5	0.75	1	12.00	30.48	44.2	1788555819	1789	25.9	15.0	55.2
CA550	131:	Fagan	28	46	18.00	1.35	1.425	1.5	0.5	0.75	1	18.00	45.72	65.2	2636577974	2637	37.6	21.8	79.9
CA550	132:	Fagan	0	16	16.00	1.4	1.45	1.5	1	2	3	16.00	40.64	58.9	2384741092	2385	34.6	20.1	73.5
CA550	132:	Fagan	16	28	12.00	1.4	1.45	1.5	0.5	0.75	1	12.00	30.48	44.2	1788555819	1789	25.9	15.0	55.2
CA550	132:	Fagan	28	46	18.00	1.35	1.425	1.5	0.5	0.75	1	18.00	45.72	65.2	2636577974	2637	37.6	21.8	79.9
CA550	133:	Fagan	0	16	16.00	1.4	1.45	1.5	1	2	3	16.00	40.64	58.9	2384741092	2385	34.6	20.1	73.5
CA550	133:	Fagan	16	28	12.00	1.4	1.45	1.5	0.5	0.75	1	12.00	30.48	44.2	1788555819	1789	25.9	15.0	55.2
CA550	133:	Fagan	28	46	18.00	1.35	1.425	1.5	0.5	0.75	1	18.00	45.72	65.2	2636577974	2637	37.6	21.8	79.9
CA550	134:	Fagan	0	16	16.00	1.4	1.45	1.5	1	2	3	16.00	40.64	58.9	2384741092	2385	34.6	20.1	73.5
CA550	134:	Fagan	16	28	12.00	1.4	1.45	1.5	0.5	0.75	1	12.00	30.48	44.2	1788555819	1789	25.9	15.0	55.2
CA550	134:	Fagan	28	46	18.00	1.35	1.425	1.5	0	0	1	18.00	45.72	65.2	2636577974	2637	37.6	21.8	79.9
CA550	134:	Forward variant	0	7	7.00	1.45	1.5	1.55	1	2	3	7.00	17.78	26.7	1079300925	1079	16.2	9.4	34.4
CA550	134:	Forward variant	7	62	55.00														

CA550	137:	Felton	10	33	23.00	1.4	1.45	1.5	0.5	0.75	1	23.00	58.42	84.7	3428065319	3428	49.7	28.8	105.7
CA550	138:	Forward	0	2	2.00	0.18	0.215	0.25	55	67.5	80	2.00	5.08	1.1	44199943	44	0.1	0.1	0.2
CA550	138:	Forward	2	6	4.00	1.13	1.18	1.23	4	5	6	4.00	10.16	12.0	485171463	485	5.7	3.3	12.2
CA550	138:	Forward	6	12	6.00	1.37	1.405	1.44	1	1.75	2.5	6.00	15.24	21.4	866524457	867	12.2	7.1	25.9
CA550	138:	Forward	12	19	7.00	1.47	1.505	1.54	0.7	0.95	1.2	7.00	17.78	26.8	1082898595	1083	16.3	9.5	34.7
CA550	138:	Forward	19	28	9.00	1.37	1.46	1.55	0.3	0.55	0.8	9.00	22.86	33.4	1350668015	1351	19.7	11.4	41.9
CA550	138:	Forward	28	37	9.00	1.44	1.505	1.57	0.2	0.45	0.7	9.00	22.86	34.4	1392298193	1392	21.0	12.2	44.6
CA550	139:	Forward	0	2	2.00	0.18	0.215	0.25	55	67.5	80	2.00	5.08	1.1	44199943	44	0.1	0.1	0.2
CA550	139:	Forward	2	6	4.00	1.13	1.18	1.23	4	5	6	4.00	10.16	12.0	485171463	485	5.7	3.3	12.2
CA550	139:	Forward	6	12	6.00	1.37	1.405	1.44	1	1.75	2.5	6.00	15.24	21.4	866524457	867	12.2	7.1	25.9
CA550	139:	Forward	12	19	7.00	1.47	1.505	1.54	0.7	0.95	1.2	7.00	17.78	26.8	1082898595	1083	16.3	9.5	34.7
CA550	139:	Forward	19	28	9.00	1.37	1.46	1.55	0.3	0.55	0.8	9.00	22.86	33.4	1350668015	1351	19.7	11.4	41.9
CA550	139:	Forward	28	37	9.00	1.44	1.505	1.57	0.2	0.45	0.7	9.00	22.86	34.4	1392298193	1392	21.0	12.2	44.6
CA550	140:	Forward	0	2	2.00	0.18	0.215	0.25	55	67.5	80	2.00	5.08	1.1	44199943	44	0.1	0.1	0.2
CA550	140:	Forward	2	6	4.00	1.13	1.18	1.23	4	5	6	4.00	10.16	12.0	485171463	485	5.7	3.3	12.2
CA550	140:	Forward	6	12	6.00	1.37	1.405	1.44	1	1.75	2.5	6.00	15.24	21.4	866524457	867	12.2	7.1	25.9
CA550	140:	Forward	12	19	7.00	1.47	1.505	1.54	0.7	0.95	1.2	7.00	17.78	26.8	1082898595	1083	16.3	9.5	34.7
CA550	140:	Forward	19	28	9.00	1.37	1.46	1.55	0.3	0.55	0.8	9.00	22.86	33.4	1350668015	1351	19.7	11.4	41.9
CA550	140:	Forward	28	37	9.00	1.44	1.505	1.57	0.2	0.45	0.7	9.00	22.86	34.4	1392298193	1392	21.0	12.2	44.6
CA550	141:	Forward	0	2	2.00	0.18	0.215	0.25	55	67.5	80	2.00	5.08	1.1	44199943	44	0.1	0.1	0.2
CA550	141:	Forward	2	6	4.00	1.13	1.18	1.23	4	5	6	4.00	10.16	12.0	485171463	485	5.7	3.3	12.2
CA550	141:	Forward	6	12	6.00	1.37	1.405	1.44	1	1.75	2.5	6.00	15.24	21.4	866524457	867	12.2	7.1	25.9
CA550	141:	Forward	12	19	7.00	1.47	1.505	1.54	0.7	0.95	1.2	7.00	17.78	26.8	1082898595	1083	16.3	9.5	34.7
CA550	141:	Forward	19	28	9.00	1.37	1.46	1.55	0.3	0.55	0.8	9.00	22.86	33.4	1350668015	1351	19.7	11.4	41.9
CA550	141:	Forward	28	37	9.00	1.44	1.505	1.57	0.2	0.45	0.7	9.00	22.86	34.4	1392298193	1392	21.0	12.2	44.6
CA550	141:	Kidd	0	4	4.00	1.05	1.18	1.31	4	6.5	9	4.00	10.16	12.0	485171463	485	5.7	3.3	12.2
CA550	141:	Kidd	4	10	6.00	1.29	1.355	1.42	1	2.5	4	6.00	15.24	20.7	835687288	836	11.3	6.6	24.1
CA550	141:	Kidd	10	14	4.00	1.29	1.36	1.43	0.5	2.15	3.8	4.00	10.16	13.8	559180670	559	7.6	4.4	16.2
CA550	142:	Guenoc	0	3	3.00	1.22	1.31	1.4	3	4	5	3.00	7.62	10.0	403966918	404	5.3	3.1	11.3
CA550	142:	Guenoc	3	12	9.00	1.3	1.39	1.48	1	1.75	2.5	9.00	22.86	31.8	1285909959	1286	17.9	10.4	38.0
CA550	142:	Guenoc	12	22	10.00	1.35	1.415	1.48	0.8	1.15	1.5	10.00	25.4	35.9	1454486485	1454	20.6	11.9	43.8
CA550	142:	Guenoc	22	30	8.00	1.42	1.48	1.54	0.5	0.75	1	8.00	20.32	30.1	1217040281	1217	18.0	10.4	38.3
CA550	142:	Henneke	0	3	3.00	1.15	1.27	1.39	2	3.5	5	3.00	7.62	9.7	391632050	392	5.0	2.9	10.6
CA550	142:	Henneke	3	11	8.00	1.29	1.365	1.44	1	2	3	8.00	20.32	27.7	1122472962	1122	15.3	8.9	32.6
CA550	142:	Henneke	11	16	5.00	1.38	1.455	1.53	0.7	1.1	1.5	5.00	12.7	18.5	747801355	748	10.9	6.3	23.1
CA550	142:	Henneke	16	19	3.00	1.4	1.455	1.51	0.5	0.75	1	3.00	7.62	11.1	448680813	449	6.5	3.8	13.9
CA550	142:	Montara	0	6	6.00	1.17	1.28	1.39	2	3.5	5	6.00	15.24	19.5	789431534	789	10.1	5.9	21.5
CA550	142:	Montara	6	12	6.00	1.44	1.485	1.53	0.8	1.4	2	6.00	15.24	22.6	915863928	916	13.6	7.9	28.9
CA550	143:	Guenoc	0	12	12.00	1.4	1.45	1.5	0.5	1.25	2	12.00	30.48	44.2	1788555819	1789	25.9	15.0	55.2
CA550	143:	Guenoc	12	30	18.00	1.4	1.475	1.55	0.5	0.75	1	18.00	45.72	67.4	2729089482	2729	40.3	23.3	85.6
CA550	143:	Henneke	0	3	3.00	1.15	1.27	1.39	2	3.5	5	3.00	7.62	9.7	391632050	392	5.0	2.9	10.6
CA550	143:	Henneke	3	11	8.00	1.29	1.365	1.44	1	2	3	8.00	20.32	27.7	1122472962	1122	15.3	8.9	32.6
CA550	143:	Henneke	11	16	5.00	1.38	1.455	1.53	0.7	1.1	1.5	5.00	12.7	18.5	747801355	748	10.9	6.3	23.1
CA550	143:	Henneke	16	19	3.00	1.4	1.455	1.51	0.5	0.75	1	3.00	7.62	11.1	448680813	449	6.5	3.8	13.9
CA550	143:	Okiota	0	1	1.00	1.21	1.3	1.39	3	4	5	1.00	2.54	3.3	133627734	134	1.7	1.0	3.7
CA550	143:	Okiota	1	3	2.00	1.25	1.32	1.39	2	2.5	3	2.00	5.08	6.7	271367090	271	3.6	2.1	7.6
CA550	143:	Okiota	3	5	2.00	1.36	1.42	1.48	0.8	1.05	1.3	2.00	5.08	7.2	291925203	292	4.1	2.4	8.8
CA550	143:	Okiota	5	14	9.00	1.38	1.46	1.54	0.5	0.7	0.9	9.00	22.86	33.4	1350668015	1351	19.7	11.4	41.9
CA550	144:	Guenoc	0	12	12.00	1.4	1.45	1.5	0.5	1.25	2	12.00	30.48	44.2	1788555819	1789	25.9	15.0	55.2
CA550	144:	Guenoc	12	30	18.00	1.4	1.45	1.5	0.5	0.75	1	18.00	45.72	66.3	2682833728	2683	38.9	22.6	82.7
CA550	145:	Haire	0	22	22.00	1.4	1.45	1.5	1	2	3	22.00	55.88	81.0	3279019001	3279	47.5	27.6	101.1
CA550	145:	Haire	22	27	5.00	1.45	1.5	1.55	0.5	0.75	1	5.00	12.7	19.1	770929232	771	11.6	6.7	24.6
CA550	145:	Haire	27	45	18.00	1.25	1.325	1.4	0.5	0.75	1	18.00	45.72	60.6	2451554958	2452	32.5	18.8	69.1
CA550	145:	Haire	45	60	15.00	1.35	1.4	1.45	0.5	0.75	1	15.00	38.1	53.3	2158601850	2159	30.2	17.5	64.3
CA550	146:	Haire	0	22	22.00	1.4	1.45	1.5	1	2	3	22.00	55.88	81.0	3279019001	3279	47.5	27.6	101.1
CA550	146:	Haire	22	27	5.00	1.45	1.5	1.55	0.5	0.75	1	5.00	12.7	19.1	770929232	771	11.6	6.7	24.6
CA550	146:	Haire	27	45	18.00	1.25	1.325	1.4	0.5	0.75	1	18.00	45.72	60.6	2451554958	2452	32.5	18.8	69.1
CA550	146:	Haire	45	60	15.00	1.35	1.4	1.45	0.5	0.75	1	15.00	38.1	53.3	2158601850	2159	30.2	17.5	64.3
CA550	147:	Haire	0	22	22.00	1.35	1.4	1.45	0.5	0.75	1	22.00	55.88	78.2	3165949380	3166	44.3	25.7	94.3
CA550	147:	Haire	22	27	5.00	1.35	1.4	1.45	0.5	0.75	1	5.00	12.7	17.8	719533950	720	10.1	5.8	21.4
CA550	147:	Haire	27	45	18.00	1.35	1.4	1.45	0.5	0.75	1	18.00	45.72	64.0	2590322220	2590	36.3	21.0	77.1
CA550	147:	Haire	45	60	15.00	1.35	1.4	1.45	0.5	0.75	1	15.00	38.1	53.3	2158601850	2159	30.2	17.5	64.3
CA550	148:	Haire	0	22	22.00	1.45	1.5	1.55	0.5	0.75	1	22.00	55.88	83.8	3392088622	3392	50.9	29.5	108.2
CA550	148:	Haire	22	27	5.00	1.35	1.4	1.45	0.5	0.75	1	5.00	12.7	17.8	719533950	720	10.1	5.8	21.4
CA550	148:	Haire	27	45	18.00	1.35	1.4	1.45	0.5	0.75	1	18.00	45.72	64.0	2590322220	2590	36.3	21.0	77.1
CA550	148:	Haire	45	60	15.00	1.35	1.4	1.45	0.5	0.75	1	15.00	38.1	53.3	2158601850	2159	30.2	17.5	64.3
CA550	148:	Kidd	0	9	9.00	1.45	1.5	1.55	1	2	3	9.00	22.86	34.3	1387672618	1388	20.8	12.1	44.3
CA550	148:	Kidd	9	16	7.00	1.45	1.525	1.6	0.5	0.75	1	7.00	17.78	27.1	1097289274	1097	16.7	9.7	35.6
CA550	148:	Forward	0	9	9.00	1.45	1.5	1.55	2	3	4	9.00	22.86	34.3	1387672618	1388	20.8	12.1	44.3
CA550	148:	Forward	9	25	16.00	1.45	1.525	1.6	0	0.25	0.5	16.00	40.64	62.0	2508089769	2508	38.2	22.2	81.3
CA550	149:	Haire	0	2															

CA550	149:	Forward	9	25	16.00	1.45	1.525	1.6	0	0.25	0.5	16.00	40.64	62.0	2508089769	2508	38.2	22.2	81.3
CA550	150:	Haire	0	22	22.00	1.35	1.4	1.45	0.5	0.75	1	22.00	55.88	78.2	3165949380	3166	44.3	25.7	94.3
CA550	150:	Haire	22	27	5.00	1.45	1.5	1.55	0.5	0.75	1	5.00	12.7	19.1	770929232	771	11.6	6.7	24.6
CA550	150:	Haire	27	45	18.00	1.35	1.4	1.45	0.5	0.75	1	18.00	45.72	64.0	2590322220	2590	36.3	21.0	77.1
CA550	150:	Haire	45	60	15.00	1.35	1.4	1.45	0.5	0.75	1	15.00	38.1	53.3	2158601850	2159	30.2	17.5	64.3
CA550	151:	Hambright	0	12	12.00	1.4	1.45	1.5	2	5	8	12.00	30.48	44.2	1788555819	1789	25.9	15.0	55.2
CA550	152:	Hambright	0	12	12.00	1.4	1.45	1.5	2	5	8	12.00	30.48	44.2	1788555819	1789	25.9	15.0	55.2
CA550	153:	Henneke	0	5	5.00	1.29	1.38	1.47	2	3	4	5.00	12.7	17.5	709254894	709	9.8	5.7	20.8
CA550	153:	Henneke	5	16	11.00	1.35	1.43	1.51	0.8	1.4	2	11.00	27.94	40.0	1616895576	1617	23.1	13.4	49.2
CA550	154:	Henneke	0	7	7.00	1.4	1.45	1.5	2	4.5	7	7.00	17.78	25.8	1043324228	1043	15.1	8.8	32.2
CA550	154:	Henneke	7	15	8.00	1.35	1.4	1.45	0.5	1.25	2	8.00	20.32	28.4	1151254320	1151	16.1	9.3	34.3
CA550	155:	Kidd	0	14	14.00	0.85	0.9	0.95	1	2	3	14.00	35.56	32.0	1295161110	1295	11.7	6.8	24.8
CA550	156:	Kidd	0	14	14.00	0.85	0.9	0.95	1	2	3	14.00	35.56	32.0	1295161110	1295	11.7	6.8	24.8
CA550	157:	Lodo	0	7	7.00	1.4	1.475	1.55	1	3.5	6	7.00	17.78	26.2	1061312576	1061	15.7	9.1	33.3
CA550	157:	Maymen	0	12	12.00	1.45	1.5	1.55	0.5	0.75	1	12.00	30.48	45.7	1850230157	1850	27.8	16.1	59.0
CA550	157:	Felton	0	10	10.00	1.4	1.45	1.5	5	7.5	10	10.00	25.4	36.8	1490463182	1490	21.6	12.5	46.0
CA550	157:	Felton	10	33	23.00	1.4	1.45	1.5	0.5	0.75	1	23.00	58.42	84.7	3428065319	3428	49.7	28.8	105.7
CA550	158:	Los Gatos	0	25	25.00	1.4	1.45	1.5	1	2.5	4	25.00	63.5	92.1	3726157956	3726	54.0	31.3	114.9
CA550	158:	Los Gatos	25	36	11.00	1.4	1.45	1.5	0.5	0.75	1	11.00	27.94	40.5	1639509500	1640	23.8	13.8	50.6
CA550	159:	Los Gatos	0	25	25.00	1.4	1.45	1.5	1	2.5	4	25.00	63.5	92.1	3726157956	3726	54.0	31.3	114.9
CA550	159:	Los Gatos	25	36	11.00	1.4	1.45	1.5	0.5	0.75	1	11.00	27.94	40.5	1639509500	1640	23.8	13.8	50.6
CA550	160:	Los Gatos	0	25	25.00	1.4	1.45	1.5	1	2.5	4	25.00	63.5	92.1	3726157956	3726	54.0	31.3	114.9
CA550	160:	Los Gatos	25	36	11.00	1.4	1.45	1.5	0.5	0.75	1	11.00	27.94	40.5	1639509500	1640	23.8	13.8	50.6
CA550	161:	Maxwell	0	62	62.00	1.3	1.375	1.45	1	2	3	62.00	157.48	216.5	8762895606	8763	120.5	69.9	256.2
CA550	162:	Maymen	0	12	12.00	1.45	1.5	1.55	0.5	0.75	1	12.00	30.48	45.7	1850230157	1850	27.8	16.1	59.0
CA550	162:	Los Gatos	0	25	25.00	1.4	1.45	1.5	1	2.5	4	25.00	63.5	92.1	3726157956	3726	54.0	31.3	114.9
CA550	162:	Los Gatos	25	36	11.00	1.4	1.45	1.5	0.5	0.75	1	11.00	27.94	40.5	1639509500	1640	23.8	13.8	50.6
CA550	163:	Maymen	0	12	12.00	1.45	1.5	1.55	0.5	0.75	1	12.00	30.48	45.7	1850230157	1850	27.8	16.1	59.0
CA550	163:	Millsholm	0	12	12.00	1.4	1.45	1.5	1	2	3	12.00	30.48	44.2	1788555819	1789	25.9	15.0	55.2
CA550	163:	Lodo	0	7	7.00	1.4	1.475	1.55	1	3.5	6	7.00	17.78	26.2	1061312576	1061	15.7	9.1	33.3
CA550	164:	Millsholm	0	8	8.00	1.29	1.36	1.43	2	2.75	3.5	8.00	20.32	27.6	1118361339	1118	15.2	8.8	32.3
CA550	164:	Millsholm	8	17	9.00	1.38	1.47	1.56	0.5	0.75	1	9.00	22.86	33.6	1359919166	1360	20.0	11.6	42.5
CA550	165:	Millsholm	0	4	4.00	1.3	1.385	1.47	2	2.5	3	4.00	10.16	14.1	569459726	569	7.9	4.6	16.8
CA550	165:	Millsholm	4	12	8.00	1.38	1.425	1.47	0.5	0.75	1	8.00	20.32	29.0	1171812433	1172	16.7	9.7	35.5
CA550	166:	Montara	0	12	12.00	1.4	1.45	1.5	1	2	3	12.00	30.48	44.2	1788555819	1789	25.9	15.0	55.2
CA550	167:	Montara	0	12	12.00	1.4	1.45	1.5	1	2	3	12.00	30.48	44.2	1788555819	1789	25.9	15.0	55.2
CA550	168:	Perkins	0	7	7.00	1.39	1.435	1.48	1	1.5	2	7.00	17.78	25.5	1032531218	1033	14.8	8.6	31.5
CA550	168:	Perkins	7	19	12.00	1.36	1.475	1.59	0.5	0.75	1	12.00	30.48	45.0	1819392988	1819	26.8	15.6	57.1
CA550	168:	Perkins	19	29	10.00	1.41	1.485	1.56	0.4	0.6	0.8	10.00	25.4	37.7	1526439880	1526	22.7	13.1	48.2
CA550	168:	Perkins	29	44	15.00	1.48	1.495	1.51	0.3	0.5	0.7	15.00	38.1	57.0	2305078404	2305	34.5	20.0	73.3
CA550	168:	Perkins	44	57	13.00	1.58	1.59	1.6	0.1	0.15	0.2	13.00	33.02	52.5	2124680964	2125	33.8	19.6	71.8
CA550	168:	Perkins	57	60	3.00	1.54	1.585	1.63	0	0.05	0.1	3.00	7.62	12.1	488769133	489	7.7	4.5	16.5
CA550	169:	Perkins	0	29	29.00	1.45	1.5	1.55	1	2.5	4	29.00	73.66	110.5	4471389547	4471	67.1	38.9	142.6
CA550	169:	Perkins	29	60	31.00	1.4	1.45	1.5	0.5	0.75	1	31.00	78.74	114.2	4620435865	4620	67.0	38.9	142.5
CA550	170:	Pleasanton	0	5	5.00	1.45	1.49	1.53	0.5	0.75	1	5.00	12.7	18.9	765789704	766	11.4	6.6	24.3
CA550	170:	Pleasanton	5	18	13.00	1.39	1.455	1.52	0.5	0.75	1	13.00	33.02	48.0	1944283524	1944	28.3	16.4	60.2
CA550	170:	Pleasanton	18	23	5.00	1.44	1.475	1.51	0.3	0.55	0.8	5.00	12.7	18.7	758080412	758	11.2	6.5	23.8
CA550	170:	Pleasanton	23	44	21.00	1.44	1.52	1.6	0.3	0.55	0.8	21.00	53.34	81.1	3281074812	3281	49.9	28.9	106.1
CA550	170:	Pleasanton	44	66	22.00	1.52	1.585	1.65	0.2	0.5	0.8	22.00	55.88	88.6	3584306977	3584	56.8	33.0	120.8
CA550	171:	Pleasanton	0	21	21.00	1.41	1.46	1.51	1	1.5	2	21.00	53.34	77.9	3151558701	3152	46.0	26.7	97.9
CA550	171:	Pleasanton	21	33	12.00	1.37	1.42	1.47	1	1.5	2	12.00	30.48	43.3	1751551216	1752	24.9	14.4	52.9
CA550	171:	Pleasanton	33	45	12.00	1.37	1.42	1.47	1	1.5	2	12.00	30.48	43.3	1751551216	1752	24.9	14.4	52.9
CA550	171:	Pleasanton	45	55	10.00	1.44	1.475	1.51	0.5	0.75	1	10.00	25.4	37.5	1516160823	1516	22.4	13.0	47.6
CA550	171:	Pleasanton	55	79	24.00	1.4	1.47	1.54	0	0.25	0.5	24.00	60.96	89.6	3626451108	3626	53.3	30.9	113.4
CA550	172:	Reyes	0	14	14.00	1.18	1.275	1.37	2	6	10	14.00	35.56	45.3	1834811573	1835	23.4	13.6	49.8
CA550	172:	Reyes	14	60	46.00	1.35	1.36	1.37	0.5	1.25	2	46.00	116.84	158.9	6430577702	6431	87.5	50.7	186.0
CA550	173:	Reyes, salt ponds	0	14	14.00	1.18	1.275	1.37	2	6	10	14.00	35.56	45.3	1834811573	1835	23.4	13.6	49.8
CA550	173:	Reyes, salt ponds	14	60	46.00	1.35	1.36	1.37	0.5	1.25	2	46.00	116.84	158.9	6430577702	6431	87.5	50.7	186.0
CA550	175:	Maymen	0	12	12.00	1.45	1.5	1.55	0	0.5	1	12.00	30.48	45.7	1850230157	1850	27.8	16.1	59.0
CA550	175:	Millsholm	0	3	3.00	1.45	1.5	1.55	1	2	3	3.00	7.62	11.4	462557539	463	6.9	4.0	14.8
CA550	175:	Millsholm	3	11	8.00	1.4	1.45	1.5	0.5	0.75	1	8.00	20.32	29.5	1192370546	1192	17.3	10.0	36.8
CA550	175:	Bressa	0	12	12.00	1.45	1.5	1.55	0.5	1.75	3	12.00	30.48	45.7	1850230157	1850	27.8	16.1	59.0
CA550	175:	Bressa	12	26	14.00	1.4	1.45	1.5	0.5	0.75	1	14.00	35.56	51.6	2086648455	2087	30.3	17.5	64.3
CA550	176:	Hambright	0	12	12.00	1.4	1.475	1.55	2	5	8	12.00	30.48	45.0	1819392988	1819	26.8	15.6	57.1
CA550	177:	Kidd	0	14	14.00	0.85	0.9	0.95	1	2	3	14.00	35.56	32.0	1295161110	1295	11.7	6.8	24.8
CA550	178:	Sobranite	0	6	6.00	1.4	1.45	1.5	1	2	3	6.00	15.24	22.1	894277909	894	13.0	7.5	27.6
CA550	178:	Sobranite	6	30	24.00	1.35	1.425	1.5	0.5	0.75	1	24.00	60.96	86.9	3515437299	3515	50.1	29.1	106.5
CA550	179:	Sobranite	0	6	6.00	1.4	1.45	1.5	1	2	3	6.00	15.24	22.1	894277909	894	13.0	7.5	27.6
CA550	179:	Sobranite	6	30	24.00	1.35	1.425	1.5	0.5	0.75	1	24.00	60.96	86.9	3515437299	3515	50.1	29.1	106.5
CA550	180:	Tehama	0	12	12.00	1.45													

CA550	182:	Yolo, moist	24	45	21.00	1.38	1.42	1.46	0.8	1	1.2	21.00	53.34	75.7	3065214627	3065	43.5	25.2	92.6
CA550	182:	Yolo, moist	45	60	15.00	1.38	1.43	1.48	0.5	0.75	1	15.00	38.1	54.5	2204857604	2205	31.5	18.3	67.1
CA550	192l:	Okiota	0	1	1.00	1.4	1.45	1.5	2	3	4	1.00	2.54	3.7	149046318	149	2.2	1.3	4.6
CA550	192l:	Okiota	1	3	2.00	1.4	1.45	1.5	1	1.5	2	2.00	5.08	7.4	298092636	298	4.3	2.5	9.2
CA550	192l:	Okiota	3	14	11.00	1.35	1.4	1.45	1	1.5	2	11.00	27.94	39.1	1582974690	1583	22.2	12.9	47.1
CA550	192l:	Henneke	0	3	3.00	1.45	1.5	1.55	2	4.5	7	3.00	7.62	11.4	462557539	463	6.9	4.0	14.8
CA550	192l:	Henneke	3	11	8.00	1.4	1.45	1.5	1	1.5	2	8.00	20.32	29.5	1192370546	1192	17.3	10.0	36.8
CA550	192l:	Henneke	11	19	8.00	1.35	1.425	1.5	1	1.5	2	8.00	20.32	29.0	1171812433	1172	16.7	9.7	35.5
CA550	193l:	Okiota	0	1	1.00	1.4	1.45	1.5	2	3	4	1.00	2.54	3.7	149046318	149	2.2	1.3	4.6
CA550	193l:	Okiota	1	3	2.00	1.4	1.45	1.5	1	1.5	2	2.00	5.08	7.4	298092636	298	4.3	2.5	9.2
CA550	193l:	Okiota	3	14	11.00	1.35	1.425	1.5	1	1.5	2	11.00	27.94	39.8	1611242095	1611	23.0	13.3	48.8
CA550	193l:	Dubakella	0	7	7.00	1.45	1.5	1.55	4	7	10	7.00	17.78	26.7	1079300925	1079	16.2	9.4	34.4
CA550	193l:	Dubakella	7	30	23.00	1.35	1.425	1.5	1	1.5	2	23.00	58.42	83.2	3368960745	3369	48.0	27.8	102.1
CA550	193l:	Henneke	0	3	3.00	1.45	1.5	1.55	2	4.5	7	3.00	7.62	11.4	462557539	463	6.9	4.0	14.8
CA550	193l:	Henneke	3	11	8.00	1.4	1.45	1.5	1	1.5	2	8.00	20.32	29.5	1192370546	1192	17.3	10.0	36.8
CA550	193l:	Henneke	11	19	8.00	1.35	1.425	1.5	1	1.5	2	8.00	20.32	29.0	1171812433	1172	16.7	9.7	35.5
CA550	202l:	Sanhedrin	0	8	8.00	1.45	1.5	1.55	1	1.5	2	8.00	20.32	30.5	1233486771	1233	18.5	10.7	39.3
CA550	202l:	Sanhedrin	8	57	49.00	1.4	1.475	1.55	0.5	0.75	1	49.00	124.46	183.6	7429188034	7429	109.6	63.6	233.0
CA550	202l:	Kekawaka	0	9	9.00	1.45	1.5	1.55	1	1.5	2	9.00	22.86	34.3	1387672618	1388	20.8	12.1	44.3
CA550	202l:	Kekawaka	9	28	19.00	1.4	1.45	1.5	0.5	0.75	1	19.00	48.26	70.0	2831880046	2832	41.1	23.8	87.3
CA550	202l:	Kekawaka	28	42	14.00	1.35	1.5	1.65	0.5	0.75	1	14.00	35.56	53.3	2158601850	2159	32.4	18.8	68.9
CA550	202l:	Kekawaka	42	68	26.00	1.35	1.5	1.65	0	0.25	0.5	26.00	66.04	99.1	4008832007	4009	60.1	34.9	127.9
CA550	202l:	Speaker	0	8	8.00	1.45	1.5	1.55	2	3.5	5	8.00	20.32	30.5	1233486771	1233	18.5	10.7	39.3
CA550	202l:	Speaker	8	27	19.00	1.4	1.475	1.55	0.5	0.75	1	19.00	48.26	71.2	2880705564	2881	42.5	24.6	90.4
CA550	209l:	Skyhigh	0	2	2.00	1.45	1.5	1.55	2	3	4	2.00	5.08	7.6	308371693	308	4.6	2.7	9.8
CA550	209l:	Skyhigh	2	8	6.00	1.4	1.45	1.5	1	1.5	2	6.00	15.24	22.1	894277909	894	13.0	7.5	27.6
CA550	209l:	Skyhigh	8	38	30.00	1.35	1.425	1.5	0.5	0.75	1	30.00	76.2	108.6	4394296623	4394	62.6	36.3	133.2
CA550	209l:	Millsholm	0	6	6.00	1.45	1.5	1.55	1	2	3	6.00	15.24	22.9	925115079	925	13.9	8.0	29.5
CA550	209l:	Millsholm	6	16	10.00	1.4	1.45	1.5	0.5	0.75	1	10.00	25.4	36.8	1490463182	1490	21.6	12.5	46.0
CA550	219l:	Sobranite	0	10	10.00	1.45	1.5	1.55	1	2	3	10.00	25.4	38.1	1541858464	1542	23.1	13.4	49.2
CA550	219l:	Sobranite	10	38	28.00	1.35	1.425	1.5	1	1.5	2	28.00	71.12	101.3	4101343515	4101	58.4	33.9	124.3
CA550	219l:	Guenoc	0	11	11.00	1.4	1.45	1.5	0	1	2	11.00	27.94	40.5	1639509500	1640	23.8	13.8	50.6
CA550	219l:	Guenoc	11	36	25.00	1.35	1.45	1.55	0.5	0.75	1	25.00	63.5	92.1	3726157956	3726	54.0	31.3	114.9
CA550	219l:	Hambricht	0	4	4.00	1.45	1.5	1.55	2	5	8	4.00	10.16	15.2	616743386	617	9.3	5.4	19.7
CA550	219l:	Hambricht	4	16	12.00	1.45	1.5	1.55	1	1.5	2	12.00	30.48	45.7	1850230157	1850	27.8	16.1	59.0
CA550	220l:	Sobranite	0	10	10.00	1.4	1.45	1.5	1	2	3	10.00	25.4	36.8	1490463182	1490	21.6	12.5	46.0
CA550	220l:	Sobranite	10	38	28.00	1.35	1.425	1.5	1	1.5	2	28.00	71.12	101.3	4101343515	4101	58.4	33.9	124.3
CA550	220l:	Hambricht	0	4	4.00	1.45	1.5	1.55	2	5	8	4.00	10.16	15.2	616743386	617	9.3	5.4	19.7
CA550	220l:	Hambricht	4	16	12.00	1.45	1.5	1.55	1	1.5	2	12.00	30.48	45.7	1850230157	1850	27.8	16.1	59.0
CA550	220l:	Guenoc	0	11	11.00	1.4	1.45	1.5	0	1	2	11.00	27.94	40.5	1639509500	1640	23.8	13.8	50.6
CA550	220l:	Guenoc	11	36	25.00	1.35	1.45	1.55	0.5	0.75	1	25.00	63.5	92.1	3726157956	3726	54.0	31.3	114.9
CA550	AcF2so:	Altamont	0	22	22.00	1.25	1.35	1.45	1	2	3	22.00	55.88	75.4	3052879759	3053	41.2	23.9	87.6
CA550	AcF2so:	Altamont	22	34	12.00	1.2	1.275	1.35	0.5	0.75	1	12.00	30.48	38.9	1572695634	1573	20.1	11.6	42.6
CA550	AmE2so:	Altamont	0	28	28.00	1.25	1.35	1.45	1	2	3	28.00	71.12	96.0	3885483330	3885	52.5	30.4	111.6
CA550	AmE2so:	Altamont	28	38	10.00	1.2	1.275	1.35	0.5	0.75	1	10.00	25.4	32.4	1310579695	1311	16.7	9.7	35.5
CA550	AmE2so:	Diablo	0	30	30.00	1.2	1.275	1.35	1	2.5	4	30.00	76.2	97.2	3931739084	3932	50.1	29.1	106.6
CA550	AmE2so:	Diablo	30	40	10.00	1.2	1.275	1.35	0.5	0.75	1	10.00	25.4	32.4	1310579695	1311	16.7	9.7	35.5
CA550	CmEsn:	Cohasset	0	19	19.00	1.1	1.15	1.2	2	6	10	19.00	48.26	55.5	2245973830	2246	25.8	15.0	54.9
CA550	CmEsn:	Cohasset	19	53	34.00	1.1	1.2	1.3	0.5	0.75	1	34.00	86.36	103.6	4193855023	4194	50.3	29.2	107.0
CA550	CmFsn:	Cohasset	0	9	9.00	1.16	1.275	1.39	3	4.5	6	9.00	22.86	29.1	1179521725	1180	15.0	8.7	32.0
CA550	CmFsn:	Cohasset	9	19	10.00	1.35	1.41	1.47	1	1.5	2	10.00	25.4	35.8	1449346957	1449	20.4	11.9	43.5
CA550	CmFsn:	Cohasset	19	29	10.00	1.38	1.46	1.54	0.5	1	1.5	10.00	25.4	37.1	1500742239	1501	21.9	12.7	46.6
CA550	CmGsn:	Cohasset	0	15	15.00	1.25	1.3	1.35	2	4	6	15.00	38.1	49.5	2004416004	2004	26.1	15.1	55.4
CA550	CmGsn:	Cohasset	15	27	12.00	1.25	1.3	1.35	0.5	0.75	1	12.00	30.48	39.6	1603532803	1604	20.8	12.1	44.3
CA550	DaF2y:	Dibble	0	4	4.00	1.25	1.335	1.42	2	2.5	3	4.00	10.16	13.6	548901613	549	7.3	4.3	15.6
CA550	DaF2y:	Dibble	4	15	11.00	1.34	1.415	1.49	1	1.5	2	11.00	27.94	39.5	1599935133	1600	22.6	13.1	48.1
CA550	DaF2y:	Dibble	15	20	5.00	1.41	1.42	1.43	0.5	0.85	1.2	5.00	12.7	18.0	729813006	730	10.4	6.0	22.0
CA550	DaF2y:	Dibble	20	30	10.00	1.41	1.48	1.55	0.3	0.55	0.8	10.00	25.4	37.6	1521300352	1521	22.5	13.1	47.9
CA550	DaG2y:	Dibble	0	4	4.00	1.4	1.45	1.5	0.5	0.75	1	4.00	10.16	14.7	596185273	596	8.6	5.0	18.4
CA550	DaG2y:	Dibble	4	30	26.00	1.3	1.35	1.4	0	0.25	0.5	26.00	66.04	89.2	3607948807	3608	48.7	28.3	103.6
CA550	DbEso:	Dibble	0	13	13.00	1.45	1.5	1.55	0.5	0.75	1	13.00	33.02	49.5	2004416004	2004	30.1	17.4	63.9
CA550	DbEso:	Dibble	13	30	17.00	1.3	1.35	1.4	0	0.25	0.5	17.00	43.18	58.3	2359043450	2359	31.8	18.5	67.7
CA550	DbEso:	Los Osos	0	7	7.00	1.45	1.5	1.55	2	3	4	7.00	17.78	26.7	1079300925	1079	16.2	9.4	34.4
CA550	DbEso:	Los Osos	7	25	18.00	1.35	1.4	1.45	0	0.35	0.7	18.00	45.72	64.0	2590322220	2590	36.3	21.0	77.1
CA550	DbF2so:	Dibble	0	3	3.00	1.45	1.5	1.55	0.5	0.75	1	3.00	7.62	11.4	462557539	463	6.9	4.0	14.8
CA550	DbF2so:	Dibble	3	20	17.00	1.3	1.35	1.4	0	0.25	0.5	17.00	43.18	58.3	2359043450	2359	31.8	18.5	67.7
CA550	DbF2so:	Los Osos	0	1	1.00	1.45	1.5	1.55	2	3	4	1.00	2.54	3.8	154185846	154	2.3	1.3	4.9
CA550	DbF2so:	Los Osos	1	20	19.00	1.35	1.4	1.45	0	0.35	0.7	19.00	48.26	67.6	2734229010	2734	38.3	22.2	81.4
CA550	DI Eso:	Dibble	0	13	13.00	1.4	1.45	1.5	0.5	0.75	1	13.00	33.02	47.9	1937602137	1938	28.1	16.3	59.7
CA550	DI Eso:	Dibble	13	30	17.00	1.3	1.35	1.4	0	0.25	0.5	17.00	43.18	58.3	2359043450	2359			

CA550	FaDsn:	Felta	5	24	19.00	1.3	1.35	1.4	0.7	0.85	1	19.00	48.26	65.2	2636577974	2637	35.6	20.6	75.7
CA550	FaDsn:	Felta	24	60	36.00	1.35	1.425	1.5	0	0.25	0.5	36.00	91.44	130.3	5273155948	5273	75.1	43.6	159.8
CA550	FaEsn:	Felta	0	5	5.00	1.4	1.45	1.5	1	2	3	5.00	12.7	18.4	745231591	745	10.8	6.3	23.0
CA550	FaEsn:	Felta	5	24	19.00	1.3	1.35	1.4	0.7	0.85	1	19.00	48.26	65.2	2636577974	2637	35.6	20.6	75.7
CA550	FaEsn:	Felta	24	60	36.00	1.35	1.425	1.5	0	0.25	0.5	36.00	91.44	130.3	5273155948	5273	75.1	43.6	159.8
CA550	GgEsn:	Goulding	0	11	11.00	1.35	1.425	1.5	1	1.5	2	11.00	27.94	39.8	1611242095	1611	23.0	13.3	48.8
CA550	GgEsn:	Goulding	11	20	9.00	1.35	1.425	1.5	0	0.25	0.5	9.00	22.86	32.6	1318288987	1318	18.8	10.9	40.0
CA550	GgFsn:	Goulding	0	9	9.00	1.35	1.425	1.5	1	1.5	2	9.00	22.86	32.6	1318288987	1318	18.8	10.9	40.0
CA550	GgFsn:	Goulding	9	18	9.00	1.35	1.425	1.5	0	0.25	0.5	9.00	22.86	32.6	1318288987	1318	18.8	10.9	40.0
CA550	GgGsn:	Goulding	0	9	9.00	1.35	1.425	1.5	1	1.5	2	9.00	22.86	32.6	1318288987	1318	18.8	10.9	40.0
CA550	GgGsn:	Goulding	9	18	9.00	1.35	1.425	1.5	0	0.25	0.5	9.00	22.86	32.6	1318288987	1318	18.8	10.9	40.0
CA550	GlDsn:	Goulding	0	11	11.00	1.35	1.425	1.5	1	1.5	2	11.00	27.94	39.8	1611242095	1611	23.0	13.3	48.8
CA550	GlDsn:	Goulding	11	20	9.00	1.35	1.425	1.5	0	0.25	0.5	9.00	22.86	32.6	1318288987	1318	18.8	10.9	40.0
CA550	GlEsn:	Goulding	0	9	9.00	1.35	1.425	1.5	1	1.5	2	9.00	22.86	32.6	1318288987	1318	18.8	10.9	40.0
CA550	GlEsn:	Goulding	9	18	9.00	1.35	1.425	1.5	0	0.25	0.5	9.00	22.86	32.6	1318288987	1318	18.8	10.9	40.0
CA550	GlEso:	Gilroy	0	12	12.00	1.45	1.5	1.55	1	1.5	2	12.00	30.48	45.7	1850230157	1850	27.8	16.1	59.0
CA550	GlEso:	Gilroy	12	38	26.00	1.4	1.45	1.5	0	0.25	0.5	26.00	66.04	95.8	3875204274	3875	56.2	32.6	119.5
CA550	GlF2sn:	Goulding	0	6	6.00	1.35	1.425	1.5	1	1.5	2	6.00	15.24	21.7	878859325	879	12.5	7.3	26.6
CA550	GlF2sn:	Goulding	6	15	9.00	1.35	1.425	1.5	0	0.25	0.5	9.00	22.86	32.6	1318288987	1318	18.8	10.9	40.0
CA550	GlFsn:	Goulding	0	9	9.00	1.35	1.425	1.5	1	1.5	2	9.00	22.86	32.6	1318288987	1318	18.8	10.9	40.0
CA550	GlFsn:	Goulding	9	18	9.00	1.35	1.425	1.5	0	0.25	0.5	9.00	22.86	32.6	1318288987	1318	18.8	10.9	40.0
CA550	GrGsn:	Guenoc	0	12	12.00	1.4	1.45	1.5	0.5	1.25	2	12.00	30.48	44.2	1788555819	1789	25.9	15.0	55.2
CA550	GrGsn:	Guenoc	12	25	13.00	1.35	1.4	1.45	0.4	0.7	1	13.00	33.02	46.2	1870788270	1871	26.2	15.2	55.7
CA550	HaFso:	Hambright	0	5	5.00	1.45	1.5	1.55	1	1.5	2	5.00	12.7	19.1	770929232	771	11.6	6.7	24.6
CA550	HaFso:	Hambright	5	19	14.00	1.45	1.5	1.55	0	0.25	0.5	14.00	35.56	53.3	2158601850	2159	32.4	18.8	68.9
CA550	HbCsn:	Haire	0	24	24.00	1.35	1.4	1.45	1	2	3	24.00	60.96	85.3	3453762960	3454	48.4	28.0	102.8
CA550	HbCsn:	Haire	24	36	12.00	1.35	1.4	1.45	0	0.25	0.5	12.00	30.48	42.7	1726881480	1727	24.2	14.0	51.4
CA550	HbCsn:	Haire	36	60	24.00	1.4	1.45	1.5	0	0.25	0.5	24.00	60.96	88.4	3577111637	3577	51.9	30.1	110.3
CA550	HcCsn:	Haire	0	24	24.00	1.35	1.4	1.45	1	2	3	24.00	60.96	85.3	3453762960	3454	48.4	28.0	102.8
CA550	HcCsn:	Haire	24	36	12.00	1.35	1.4	1.45	0	0.25	0.5	12.00	30.48	42.7	1726881480	1727	24.2	14.0	51.4
CA550	HcCsn:	Haire	36	60	24.00	1.4	1.45	1.5	0	0.25	0.5	24.00	60.96	88.4	3577111637	3577	51.9	30.1	110.3
CA550	HcEsn:	Haire	0	14	14.00	1.35	1.4	1.45	1	2	3	14.00	35.56	49.8	2014695060	2015	28.2	16.4	60.0
CA550	HcEsn:	Haire	14	27	13.00	1.35	1.4	1.45	0	0.25	0.5	13.00	33.02	46.2	1870788270	1871	26.2	15.2	55.7
CA550	HcEsn:	Haire	27	60	33.00	1.4	1.45	1.5	0	0.25	0.5	33.00	83.82	121.5	4918528501	4919	71.3	41.4	151.7
CA550	HgG2sn:	Henneke	0	5	5.00	1.4	1.45	1.5	2	4.5	7	5.00	12.7	18.4	745231591	745	10.8	6.3	23.0
CA550	HgG2sn:	Henneke	5	16	11.00	1.35	1.4	1.45	0	0.25	0.5	11.00	27.94	39.1	1582974690	1583	22.2	12.9	47.1
CA550	HiEso:	Hambright	0	5	5.00	1.45	1.5	1.55	1	1.5	2	5.00	12.7	19.1	770929232	771	11.6	6.7	24.6
CA550	HiEso:	Hambright	5	19	14.00	1.45	1.5	1.55	0	0.25	0.5	14.00	35.56	53.3	2158601850	2159	32.4	18.8	68.9
CA550	HiEso:	Toomes	0	19	19.00	1.45	1.5	1.55	1	1.5	2	19.00	48.26	72.4	2929531082	2930	43.9	25.5	93.5
CA550	JoFsn:	Josephine	0	13	13.00	1.2	1.25	1.3	2	3.5	5	13.00	33.02	41.3	1670346670	1670	20.9	12.1	44.4
CA550	JoFsn:	Josephine	13	35	22.00	1.2	1.3	1.4	0.7	1.35	2	22.00	55.88	72.6	2939810139	2940	38.2	22.2	81.3
CA550	JoFsn:	Josephine	35	45	10.00	1.5	1.55	1.6	0.5	0.75	1	10.00	25.4	39.4	1593253747	1593	24.7	14.3	52.5
CA550	LaE2sn:	Laniger	0	10	10.00	0.85	0.875	0.9	1	3	5	10.00	25.4	22.2	899417438	899	7.9	4.6	16.7
CA550	LaE2sn:	Laniger	10	22	12.00	0.9	1	1.1	0.5	0.75	1	12.00	30.48	30.5	1233486771	1233	12.3	7.2	26.2
CA550	LaEsn:	Laniger	0	17	17.00	0.85	0.875	0.9	1	3	5	17.00	43.18	37.8	1529009644	1529	13.4	7.8	28.5
CA550	LaEsn:	Laniger	17	29	12.00	0.9	1	1.1	0.5	0.75	1	12.00	30.48	30.5	1233486771	1233	12.3	7.2	26.2
CA550	LaFsn:	Laniger	0	11	11.00	0.85	0.875	0.9	1	3	5	11.00	27.94	24.4	989359181	989	8.7	5.0	18.4
CA550	LaFsn:	Laniger	11	25	14.00	0.9	1	1.1	0.5	0.75	1	14.00	35.56	35.6	1439067900	1439	14.4	8.3	30.6
CA550	LgFsn:	Laughlin	0	4	4.00	1.45	1.5	1.55	2	3.5	5	4.00	10.16	15.2	616743386	617	9.3	5.4	19.7
CA550	LgFsn:	Laughlin	4	22	18.00	1.45	1.5	1.55	1	1.5	2	18.00	45.72	68.6	2775345236	2775	41.6	24.1	88.5
CA550	McFsn:	Maymen	0	12	12.00	1.45	1.5	1.55	1	1.5	2	12.00	30.48	45.7	1850230157	1850	27.8	16.1	59.0
CA550	McFsn:	Maymen	12	18	6.00	1.45	1.5	1.55	0.5	0.75	1	6.00	15.24	22.9	925115079	925	13.9	8.0	29.5
CA550	MIGsn:	Maymen	0	5	5.00	1.5	1.525	1.55	1	1.5	2	5.00	12.7	19.4	783778053	784	12.0	6.9	25.4
CA550	MIGsn:	Maymen	5	12	7.00	1.5	1.525	1.55	1	1.5	2	7.00	17.78	27.1	1097289274	1097	16.7	9.7	35.6
CA550	MIGsn:	Maymen	12	18	6.00	1.4	1.41	1.42	0.5	0.75	1	6.00	15.24	21.5	869608174	870	12.3	7.1	26.1
CA550	MIGsn:	Los Gatos	0	2	2.00	1.26	1.385	1.51	1	2.5	4	2.00	5.08	7.0	284729863	285	3.9	2.3	8.4
CA550	MIGsn:	Los Gatos	2	7	5.00	1.26	1.385	1.51	1	2.5	4	5.00	12.7	17.6	711824658	712	9.9	5.7	21.0
CA550	MIGsn:	Los Gatos	7	17	10.00	1.43	1.485	1.54	0.7	0.85	1	10.00	25.4	37.7	1526439880	1526	22.7	13.1	48.2
CA550	MIGsn:	Los Gatos	17	25	8.00	1.48	1.55	1.62	0.5	0.6	0.7	8.00	20.32	31.5	1274602997	1275	19.8	11.5	42.0
CA550	MmG2so:	Millsholm, eroded	0	6	6.00	1.39	1.435	1.48	1	1.75	2.5	6.00	15.24	21.9	885026759	885	12.7	7.4	27.0
CA550	MmG2so:	Millsholm, eroded	6	15	9.00	1.38	1.47	1.56	0.5	0.75	1	9.00	22.86	33.6	1359919166	1360	20.0	11.6	42.5
CA550	MoEsn:	Montara	0	10	10.00	1.35	1.4	1.45	1	2	3	10.00	25.4	35.6	1439067900	1439	20.1	11.7	42.8
CA550	MoGsn:	Montara	0	10	10.00	1.35	1.4	1.45	1	2	3	10.00	25.4	35.6	1439067900	1439	20.1	11.7	42.8
CA550	RaDsn:	Raynor	0	17	17.00	1.3	1.35	1.4	1	2.5	4	17.00	43.18	58.3	2359043450	2359	31.8	18.5	67.7
CA550	RaDsn:	Raynor	17	35	18.00	1.3	1.35	1.4	0.5	0.75	1	18.00	45.72	61.7	2497810712	2498	33.7	19.6	71.7
CA550	RaDsn:	Raynor	35	45	10.00	1.3	1.35	1.4	0.5	0.6	0.7	10.00	25.4	34.3	1387672618	1388	18.7	10.9	39.8
CA550	RhFsn:	Red Hill	0	16	16.00	1.3	1.35	1.4	1	2	3	16.00	40.64	54.9	2220276189	2220	30.0	17.4	63.7
CA550	RhFsn:	Red Hill	16	48	32.00	1.3	1.35	1.4	0.5	0.6	0.7	32.00	81.28	109.7	4440552377	4441	59.9	34.8	127.5
CA550	RhFsn:	Red Hill	48	80	32.00	1.25	1.3	1.35	0	0.25	0.5	32.00	81.28	105.7	4276087474	4276	55.6	32.2	118.2
CA550	RoAso:	Rincon	0	6	6.00	1.4	1.415	1.43	1	1.5	2	6.00	15.24	21.6	872691891	873			

CA550	RoCso:	Rincon	52	64	12.00	1.51	1.535	1.56	0	0.25	0.5	12.00	30.48	46.8	1893402194	1893	29.1	16.9	61.8
CA550	SkFsn:	Spreckels	0	9	9.00	1.45	1.5	1.55	0.5	1.25	2	9.00	22.86	34.3	1387672618	1388	20.8	12.1	44.3
CA550	SkFsn:	Spreckels	9	18	9.00	1.4	1.45	1.5	0.5	0.6	0.7	9.00	22.86	33.1	1341416864	1341	19.5	11.3	41.4
CA550	SkFsn:	Spreckels	18	37	19.00	1.35	1.4	1.45	0	0.25	0.5	19.00	48.26	67.6	2734229010	2734	38.3	22.2	81.4
CA550	StEsn:	Suther	0	3	3.00	1.4	1.475	1.55	1	1.5	2	3.00	7.62	11.2	454848247	455	6.7	3.9	14.3
CA550	StEsn:	Suther	3	14	11.00	1.4	1.45	1.5	0.7	0.85	1	11.00	27.94	40.5	1639509500	1640	23.8	13.8	50.6
CA550	StEsn:	Suther	14	36	22.00	1.35	1.4	1.45	0.5	0.6	0.7	22.00	55.88	78.2	3165949380	3166	44.3	25.7	94.3
CA550	ToG2so:	Toomes	0	10	10.00	1.45	1.5	1.55	1	1.5	2	10.00	25.4	38.1	1541858464	1542	23.1	13.4	49.2
CA550	ToGsn:	Toomes	0	4	4.00	1.4	1.45	1.5	1	1.5	2	4.00	10.16	14.7	596185273	596	8.6	5.0	18.4
CA550	ToGsn:	Toomes	4	13	9.00	1.4	1.45	1.5	1	1.5	2	9.00	22.86	33.1	1341416864	1341	19.5	11.3	41.4
CA550	Ysso:	Yolo	0	9	9.00	1.36	1.41	1.46	2	2.5	3	9.00	22.86	32.2	1304412261	1304	18.4	10.7	39.1
CA550	Ysso:	Yolo	9	18	9.00	1.26	1.325	1.39	1	1.5	2	9.00	22.86	30.3	1225777479	1226	16.2	9.4	34.5
CA550	Ysso:	Yolo	18	28	10.00	1.29	1.38	1.47	0.7	1.1	1.5	10.00	25.4	35.1	1418509787	1419	19.6	11.4	41.6
CA550	Ysso:	Yolo	28	36	8.00	1.42	1.445	1.47	0.5	0.85	1.2	8.00	20.32	29.4	1188258923	1188	17.2	10.0	36.5
CA550	Ysso:	Yolo	36	44	8.00	1.38	1.405	1.43	0.5	0.75	1	8.00	20.32	28.5	1155365943	1155	16.2	9.4	34.5
CA550	Ysso:	Yolo	44	60	16.00	1.4	1.415	1.43	0.3	0.5	0.7	16.00	40.64	57.5	2327178376	2327	32.9	19.1	70.0

Conversion Units

2.54 cm per inch

40,468,726 cm² per acre

58% Percent of Organic Matter that is Carbon

3.67 grams of CO₂ per gram of C

Row Labels	Sum of mass of soil carbon per acre (metric ton CO2e/acre)
100:	192.8828277
Aiken	192.8828277
101:	192.8828277
Aiken	192.8828277
102:	192.8828277
Aiken	192.8828277
103:	275.765498
Bale	275.765498
104:	264.6496236
Bale	264.6496236
105:	264.6496236
Bale	264.6496236
106:	540.4151215
Bale	540.4151215
107:	202.981933
Boomer	202.981933
108:	202.981933
Boomer	202.981933
109:	202.981933
Boomer	202.981933
110:	499.2210791
Boomer	181.8489288
Felta	258.7938421
Forward	58.57830819
111:	499.2210791
Boomer	181.8489288
Felta	258.7938421
Forward	58.57830819
112:	291.5976947
Bressa	147.7307361
Dibble	143.8669587
113:	291.5976947
Bressa	147.7307361
Dibble	143.8669587
114:	291.5976947
Bressa	147.7307361
Dibble	143.8669587
115:	291.5976947
Bressa	147.7307361
Dibble	143.8669587
116:	225.2781145
Clear Lake, drained	225.2781145
117:	290.2628607
Clear Lake	290.2628607
118:	270.6614863
Cole	270.6614863
119:	270.6614863
Cole	270.6614863
120:	144.4476183
Contra Costa	144.4476183
121:	144.4476183
Contra Costa	144.4476183
122:	286.2802189
Coombs	286.2802189

123:	286.2802189
Coombs	286.2802189
124:	332.4615946
Cortina	332.4615946
125:	295.1117101
Cortina	295.1117101
126:	204.536188
Diablo	204.536188
127:	204.536188
Diablo	204.536188
128:	221.6616845
Diablo	221.6616845
129:	204.536188
Diablo	204.536188
129l:	413.8887084
Collayomi	287.7953989
Whispering	126.0933094
130:	259.2392422
Egbert	259.2392422
131:	208.5920612
Fagan	208.5920612
132:	208.5920612
Fagan	208.5920612
133:	208.5920612
Fagan	208.5920612
134:	208.5920612
Fagan	208.5920612
134l:	368.8896376
Forward variant	304.9487671
Kidd	63.94087052
135:	151.6710239
Felton	151.6710239
136:	151.6710239
Felton	151.6710239
137:	151.6710239
Felton	151.6710239
138:	159.4280898
Forward	159.4280898
139:	159.4280898
Forward	159.4280898
140:	159.4280898
Forward	159.4280898
141:	211.8577455
Forward	159.4280898
Kidd	52.42965571
142:	131.341434
Guenoc	131.341434
142l:	130.5977525
Henneke	80.18447484
Montara	50.41327763
143:	140.7600882
Guenoc	140.7600882
143l:	142.2497465
Henneke	80.18447484
Okiota	62.06527165

144:		137.882749
	Guenoc	137.882749
145:		259.0561636
	Haire	259.0561636
146:		259.0561636
	Haire	259.0561636
147:		257.0750897
	Haire	257.0750897
148:		271.0218505
	Haire	271.0218505
148l:		205.4619643
	Forward	125.6082879
	Kidd	79.85367648
149:		257.0750897
	Haire	257.0750897
149l:		205.4619643
	Forward	125.6082879
	Kidd	79.85367648
150:		260.244808
	Haire	260.244808
151:		55.15309959
	Hambright	55.15309959
152:		55.15309959
	Hambright	55.15309959
153:		69.98716295
	Henneke	69.98716295
154:		66.44932005
	Henneke	66.44932005
155:		24.78938365
	Kidd	24.78938365
156:		24.78938365
	Kidd	24.78938365
157:		243.9849726
	Felton	151.6710239
	Lodo	33.29160666
	Maymen	59.02234202
158:		165.4592988
	Los Gatos	165.4592988
159:		165.4592988
	Los Gatos	165.4592988
160:		165.4592988
	Los Gatos	165.4592988
161:		256.2416723
	Maxwell	256.2416723
162:		224.4816408
	Los Gatos	165.4592988
	Maymen	59.02234202
163:		147.4670483
	Lodo	33.29160666
	Maymen	59.02234202
	Millsholm	55.15309959
164:		74.85978519
	Millsholm	74.85978519
165:		52.28483237
	Millsholm	52.28483237

166:	55.15309959
Montara	55.15309959
167:	55.15309959
Montara	55.15309959
168:	298.3943907
Perkins	298.3943907
169:	285.1161672
Perkins	285.1161672
170:	335.0879795
Pleasanton	335.0879795
171:	364.5723719
Pleasanton	364.5723719
172:	235.7403711
Reyes	235.7403711
173:	235.7403711
Reyes, salt ponds	235.7403711
175l:	233.9142855
Bressa	123.3676249
Maymen	59.02234202
Millsholm	51.52431857
176:	57.07132571
Hambright	57.07132571
177:	24.78938365
Kidd	24.78938365
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Sobrante	134.1118771
179:	134.1118771
Sobrante	134.1118771
180:	279.6347404
Tehama	279.6347404
181:	258.8241184
Yolo, moist	258.8241184
182:	257.7538466
Yolo, moist	257.7538466
192l:	147.9548024
Henneke	87.03609435
Okiota	60.918708
193l:	286.1791158
Dubakella	136.5260549
Henneke	87.03609435
Okiota	62.6169666
202l:	730.4342726
Kekawaka	328.3336376
Sanhedrin	272.3894747
Speaker	129.7111604
209l:	246.0548533
Millsholm	75.47208734
Skyhigh	170.582766
219l:	417.632255
Guenoc	165.4592988
Hambright	78.69645602
Sobrante	173.4765002
220l:	414.4078864
Guenoc	165.4592988
Hambright	78.69645602

Sobranate	170.2521316
AcF2so:	130.29182
Altamont	130.29182
AmE2so:	289.2340685
Altamont	147.0885948
Diablo	142.1454737
CmEsn:	161.9562135
Cohasset	161.9562135
CmFsn:	122.0398954
Cohasset	122.0398954
CmGsn:	99.74775801
Cohasset	99.74775801
DaF2y:	133.6514482
Dibble	133.6514482
DaG2y:	121.9685768
Dibble	121.9685768
DbEso:	243.2212344
Dibble	131.669008
Los Osos	111.5522264
DbF2so:	168.8093632
Dibble	82.48372297
Los Osos	86.32564023
DIEso:	236.772497
Dibble	127.4773287
Los Osos	109.2951683
DIF2so:	167.5196157
Dibble	81.51641236
Los Osos	86.00320336
FaDsn:	258.4796028
Felta	258.4796028
FaEsn:	258.4796028
Felta	258.4796028
GgEsn:	88.77943945
Goulding	88.77943945
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Goulding	79.9014955
GgGsn:	79.9014955
Goulding	79.9014955
GlDsn:	88.77943945
Goulding	88.77943945
GlEsn:	79.9014955
Goulding	79.9014955
GlEso:	178.5207245
Gilroy	178.5207245
GlF2sn:	66.58457959
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GrGsn:	110.8527024
Guenoc	110.8527024
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Hambright	93.45204152
HbCsn:	264.551253
Haire	264.551253
HcCsn:	264.551253

Haire	264.551253
HcEsn:	267.3548142
Haire	267.3548142
HgG2sn:	70.11089127
Henneke	70.11089127
HtEso:	186.904083
Hambright	93.45204152
Toomes	93.45204152
JoFsn:	178.1982876
Josephine	178.1982876
LaE2sn:	42.96881149
Laniger	42.96881149
LaEsn:	54.68447313
Laniger	54.68447313
LaFsn:	49.01450277
Laniger	49.01450277
LgFsn:	108.207627
Laughlin	108.207627
McFsn:	88.53351302
Maymen	88.53351302
MIgSn:	206.6567296
Los Gatos	119.5745103
Maymen	87.08221921
MmG2so:	69.52274456
Millsholm, eroded	69.52274456
MoEsn:	42.84584828
Montara	42.84584828
MoGsn:	42.84584828
RaDsn:	179.2803639
RhFsn:	309.4519532
RoAso:	365.7020486
RoCso:	293.1845213
SkFsn:	167.0386929
StEsn:	159.0857056
ToG2so:	49.18528501
ToGsn:	59.74919123
Ysso:	256.3526671
Grand Total	28152.47555

MT C stored by soil type

100	17.53480252
101	17.53480252
102	17.53480252
103	37.60438609
104	36.08858503
105	36.08858503
106	36.84648556
107	9.226451498
108	9.226451498
109	9.226451498
110	19.45017191
111	19.45017191
112	19.881661
113	19.881661
114	19.881661
115	19.881661
116	15.35987144
117	39.58129919
118	10.54525271
119	10.54525271
120	13.13160166
121	19.69740249
122	26.02547445
123	26.02547445
124	22.667836
125	40.24250592
126	11.15651934
127	11.15651934
128	60.45318667
129	11.15651934
129I	22.57574773
130	35.35080576
131	18.96291466
132	18.96291466
133	18.96291466
134	18.96291466
134I	25.1515662
135	20.68241235
136	20.68241235
137	20.68241235
138	7.246731356
139	7.246731356
140	7.246731356
141	6.419931683
142	8.955097772
142I	5.936261476
143	19.19455748
143I	4.849423176
144	18.80219304
145	17.66292025
146	17.66292025

147	17.52784702
148	18.47876253
148I	14.0087703
149	17.52784702
149I	14.0087703
150	17.74396418
151	15.04175443
152	15.04175443
153	9.543704039
154	9.061270916
155	6.760740995
156	6.760740995
157	16.63533904
158	22.56263165
159	22.56263165
160	22.56263165
161	69.88409246
162	20.40742189
163	13.4060953
164	10.20815253
165	7.129749869
166	15.04175443
167	15.04175443
168	13.56338139
169	38.87947734
170	18.27752616
171	19.88576574
172	32.14641425
173	32.14641425
175I	12.75896103
176	15.56490701
177	6.760740995
178	18.28798325
179	18.28798325
180	38.13201005
181	17.64709898
182	17.5741259
192I	6.725218289
193I	9.756106221
202I	24.90116839
209I	13.42117382
219I	18.98328432
220I	18.83672211
AcF2so	17.76706636
AmE2so	19.72050467
CmEsn	22.0849382
CmFsn	11.09453595
CmGsn	13.601967
DaF2y	9.112598742
DaG2y	16.63207865
DbEso	16.58326598
DbF2so	11.50972931
DI Eso	16.14357934

DIF2so	11.42179198
FaDsn	23.49814571
FaEsn	23.49814571
GgEsn	12.1062872
GgFsn	10.89565848
GgGsn	10.89565848
GlDsn	12.1062872
GlEsn	10.89565848
GlEso	24.34373516
GIF2sn	9.079715398
GlFsn	10.89565848
GrGsn	15.11627759
HaFso	12.74346021
HbCsn	24.05011391
HcCsn	24.05011391
HcEsn	24.30498311
HgG2sn	9.560576082
HtEso	16.99128028
JoFsn	16.19984433
LaE2sn	5.859383385
LaEsn	7.456973609
LaFsn	6.683795833
LgFsn	14.7555855
McFsn	12.07275178
MIGsn	8.051560892
MmG2so	9.480374258
MoEsn	11.68523135
MoGsn	11.68523135
RaDsn	16.2982149
RhFsn	28.13199574
RoAso	19.94738447
RoCso	19.98985373
SkFsn	15.18533572
StEsn	14.46233687
ToG2so	13.41416864
ToGsn	8.147616986
Ysso	11.65239396

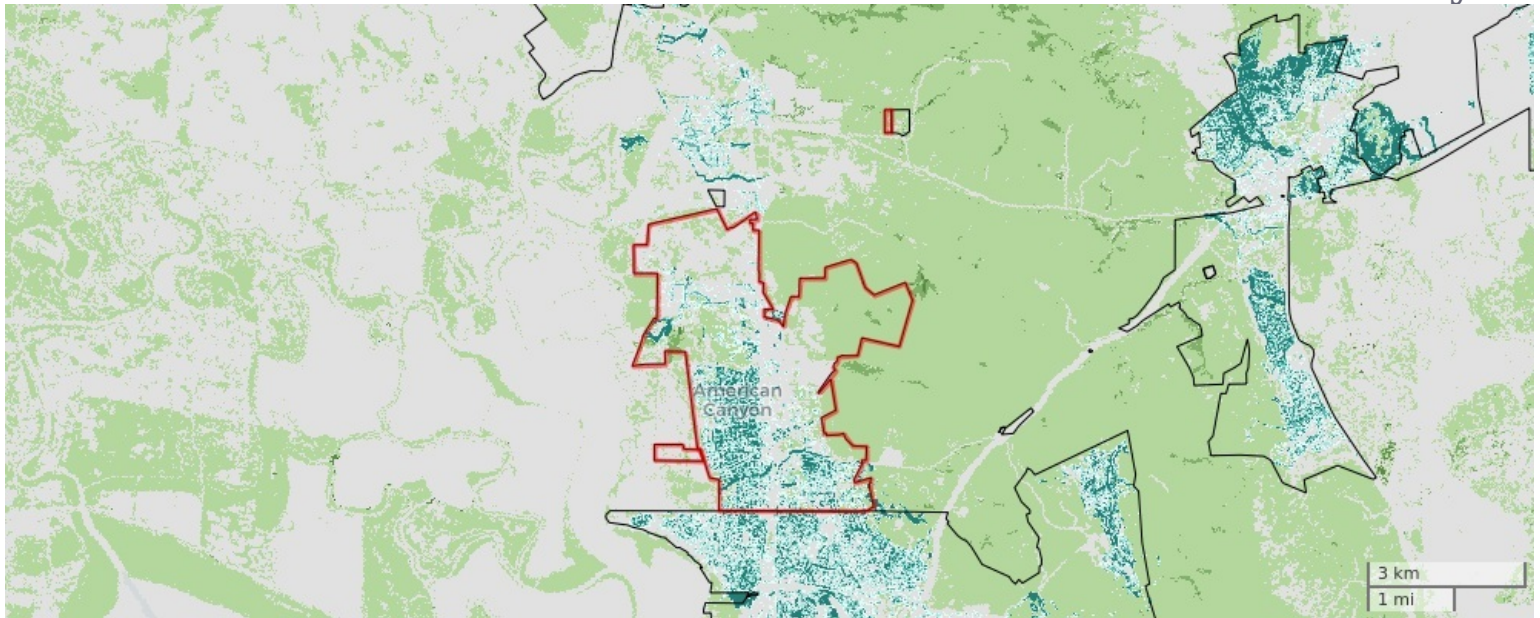
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174	0 Note: Not relevant to carbon, so assigned val of 0
184	0 Note: Not relevant to carbon, so assigned val of 0
185	0 Note: Not relevant to carbon, so assigned val of 0

Attachment B

Carbon Stock Maps by Jurisdiction

BAY AREA GREENPRINT

American Canyon



City Limits

- Boundary

Aboveground Carbon Storage

- 0 Metric tons CO₂/hectare
- 0-25 Metric tons CO₂/hectare
- 26-50 Metric tons CO₂/hectare
- 51-100 Metric tons CO₂/hectare
- More than 100 Metric tons CO₂/hectare

Urban Forest Carbon Storage

- 0 Metric tons CO₂/hectare
- 0-25 Metric tons CO₂/hectare
- 26-50 Metric tons CO₂/hectare
- 51-100 Metric tons CO₂/hectare
- More than 100 Metric tons CO₂/hectare

BAY AREA GREENPRINT

American Canyon

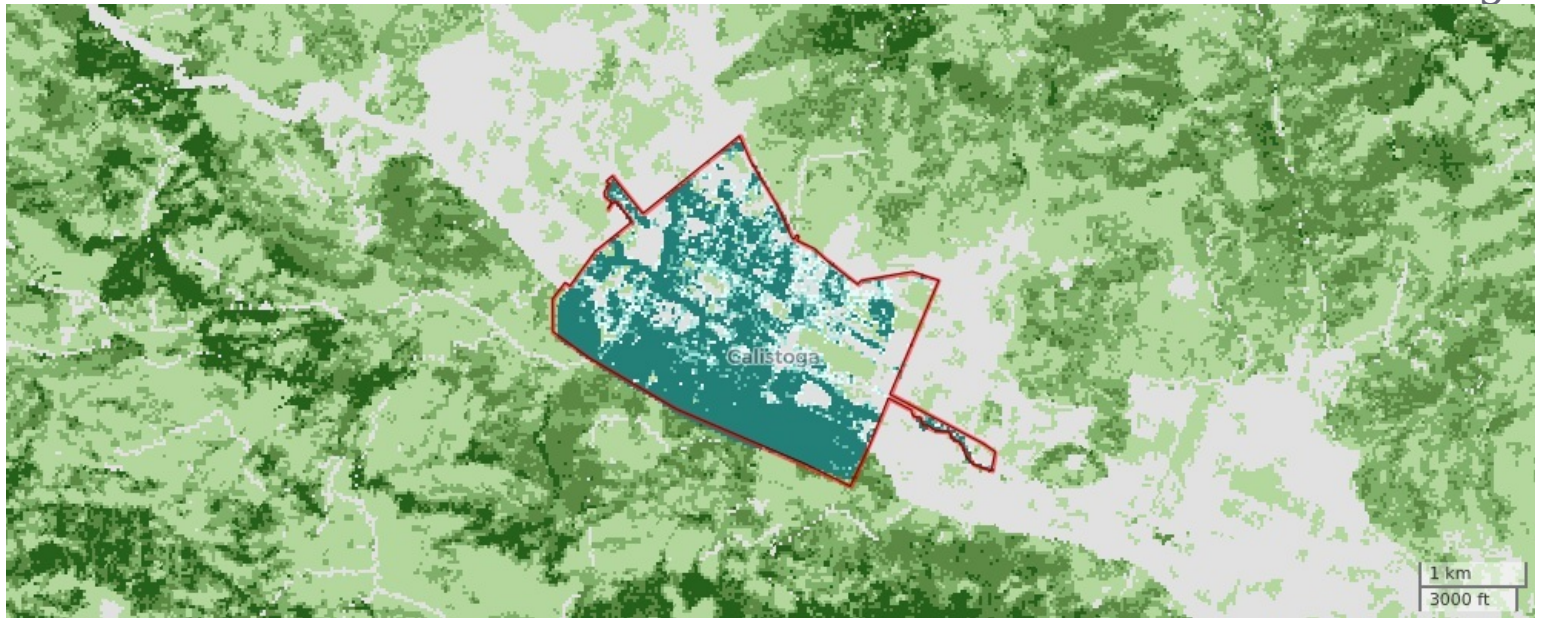


City Limits

— Boundary

Soil Carbon Storage

- 0 Metric tons CO2/hectare
- 0-25 Metric tons CO2/hectare
- 26-50 Metric tons CO2/hectare
- 51-100 Metric tons CO2/hectare
- More than 100 Metric tons CO2/hectare



City Limits

- Boundary

Aboveground Carbon Storage

- 0 Metric tons CO₂/hectare
- 0-25 Metric tons CO₂/hectare
- 26-50 Metric tons CO₂/hectare
- 51-100 Metric tons CO₂/hectare
- More than 100 Metric tons CO₂/hectare

Urban Forest Carbon Storage

- 0 Metric tons CO₂/hectare
- 0-25 Metric tons CO₂/hectare
- 26-50 Metric tons CO₂/hectare
- 51-100 Metric tons CO₂/hectare
- More than 100 Metric tons CO₂/hectare



City Limits

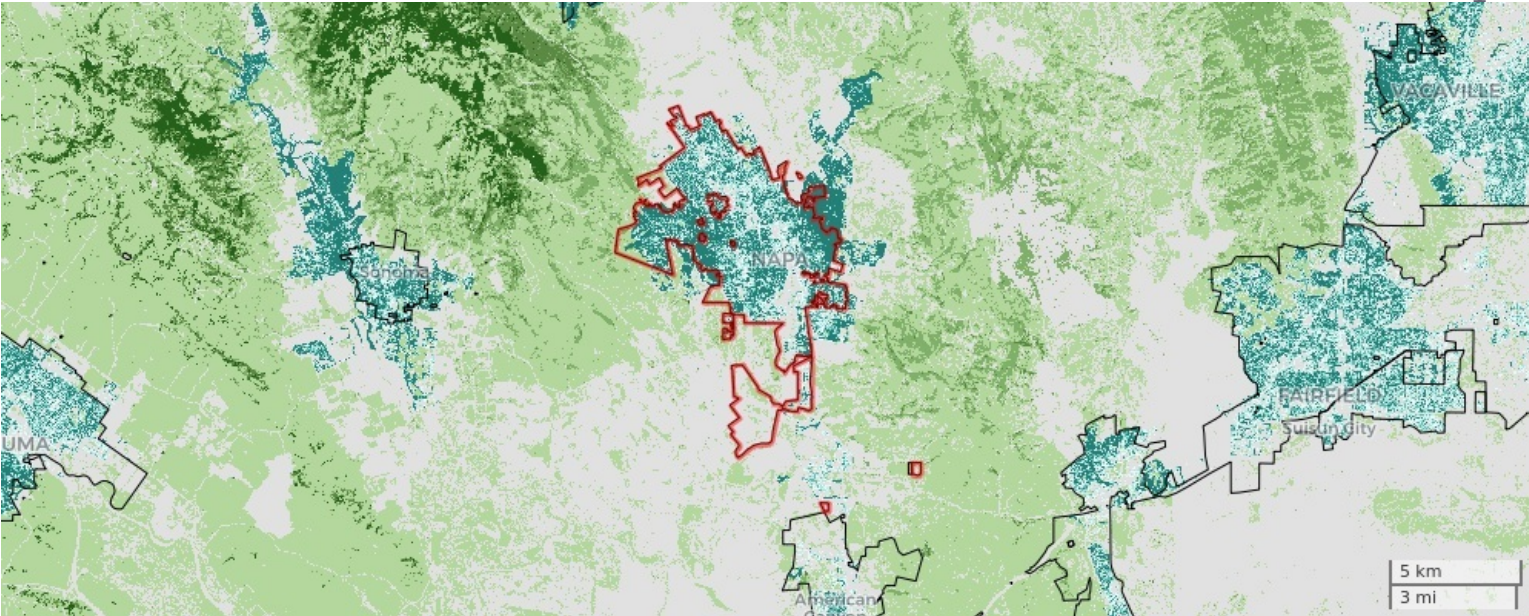
— Boundary

Soil Carbon Storage

- 0 Metric tons CO₂/hectare
- 0-25 Metric tons CO₂/hectare
- 26-50 Metric tons CO₂/hectare
- 51-100 Metric tons CO₂/hectare
- More than 100 Metric tons CO₂/hectare

BAY AREA GREENPRINT

Napa



City Limits

— Boundary

Aboveground Carbon Storage

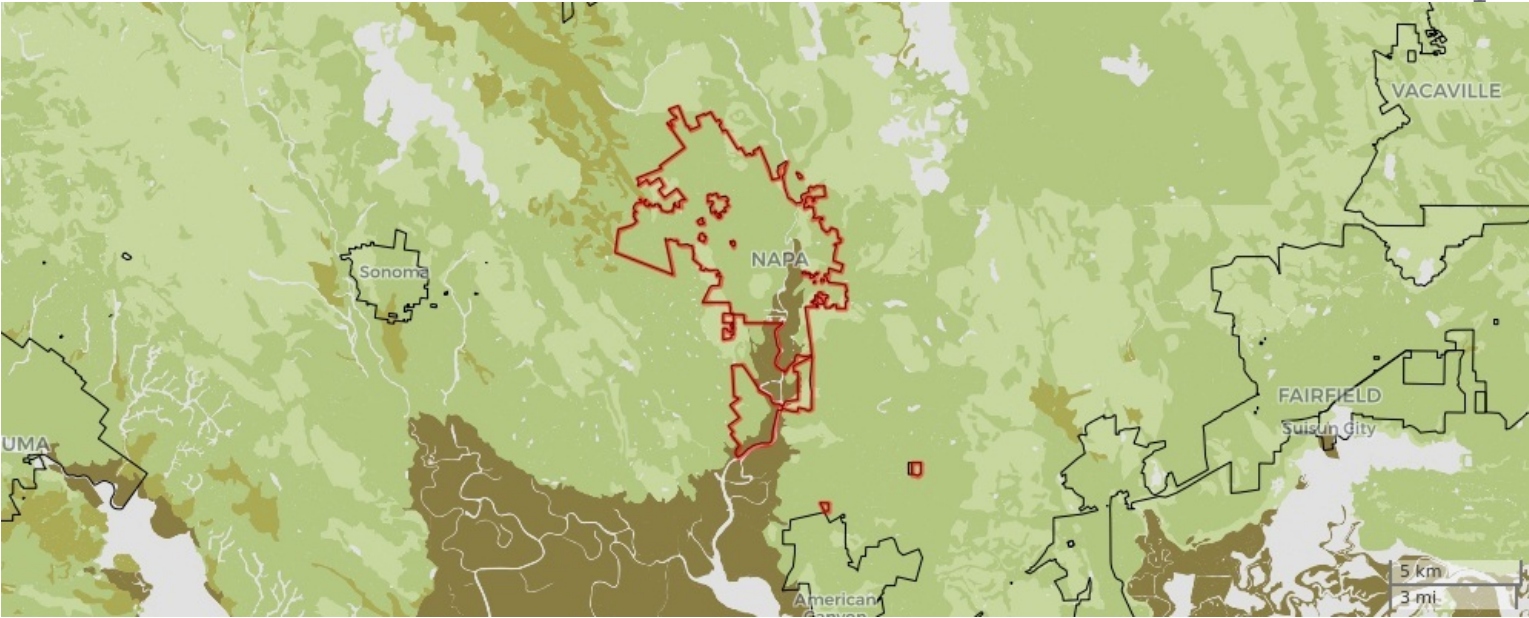
- 0 Metric tons CO₂/hectare
- 0-25 Metric tons CO₂/hectare
- 26-50 Metric tons CO₂/hectare
- 51-100 Metric tons CO₂/hectare
- More than 100 Metric tons CO₂/hectare

Urban Forest Carbon Storage

- 0 Metric tons CO₂/hectare
- 0-25 Metric tons CO₂/hectare
- 26-50 Metric tons CO₂/hectare
- 51-100 Metric tons CO₂/hectare
- More than 100 Metric tons CO₂/hectare

BAY AREA GREENPRINT

Napa

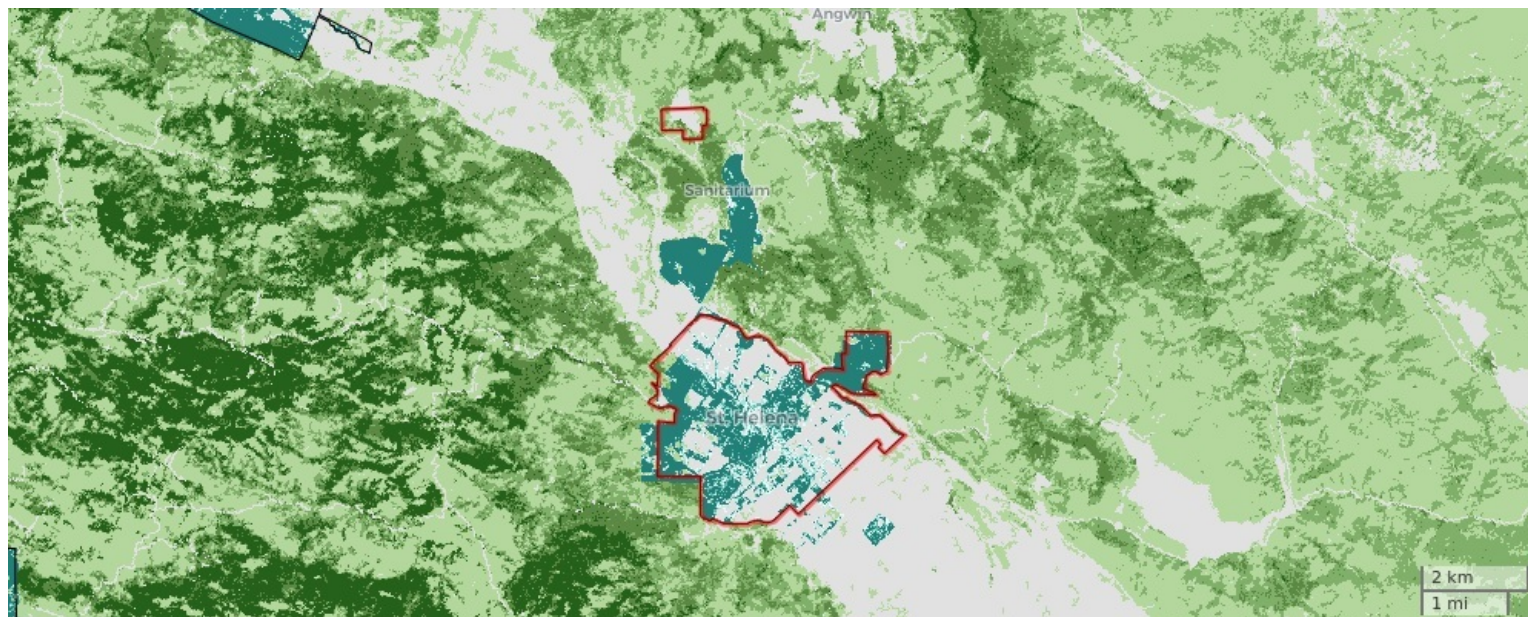


City Limits

— Boundary

Soil Carbon Storage

- 0 Metric tons CO2/hectare
- 0-25 Metric tons CO2/hectare
- 26-50 Metric tons CO2/hectare
- 51-100 Metric tons CO2/hectare
- More than 100 Metric tons CO2/hectare



City Limits

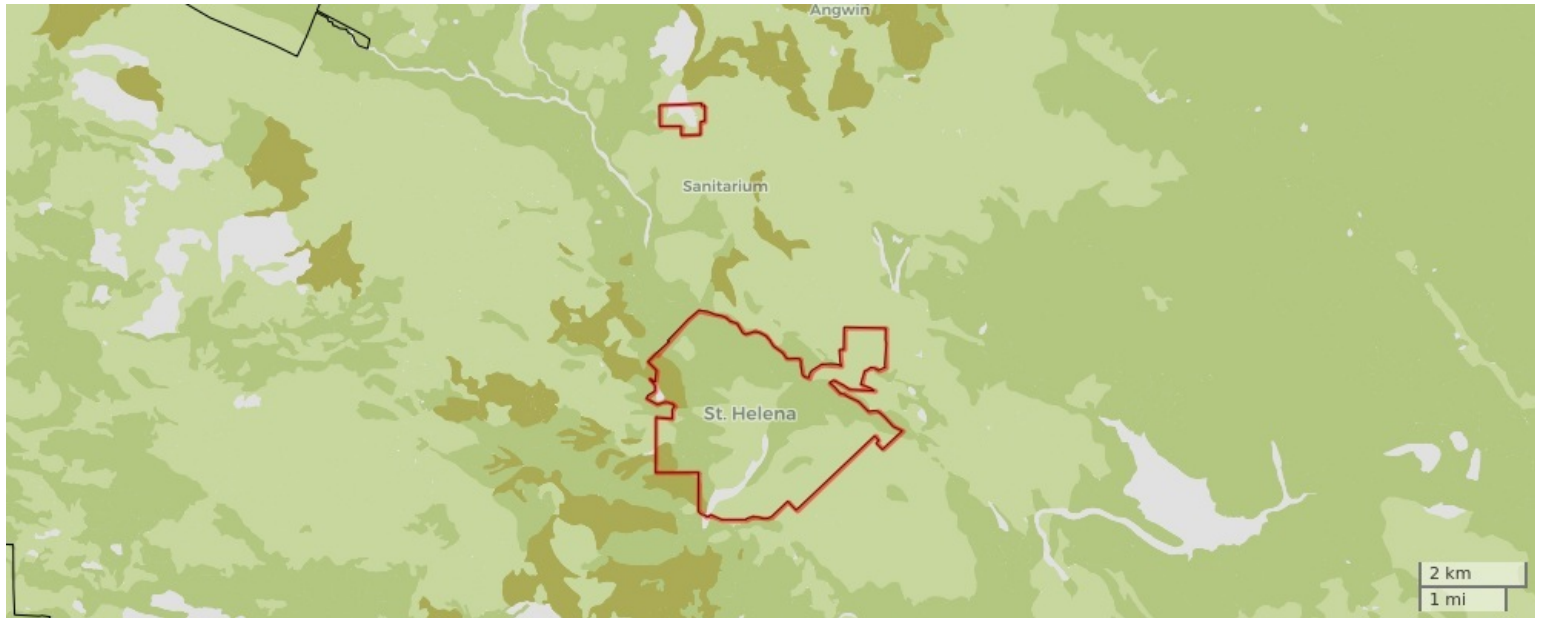
— Boundary

Aboveground Carbon Storage

- 0 Metric tons CO₂/hectare
- 0-25 Metric tons CO₂/hectare
- 26-50 Metric tons CO₂/hectare
- 51-100 Metric tons CO₂/hectare
- More than 100 Metric tons CO₂/hectare

Urban Forest Carbon Storage

- 0 Metric tons CO₂/hectare
- 0-25 Metric tons CO₂/hectare
- 26-50 Metric tons CO₂/hectare
- 51-100 Metric tons CO₂/hectare
- More than 100 Metric tons CO₂/hectare



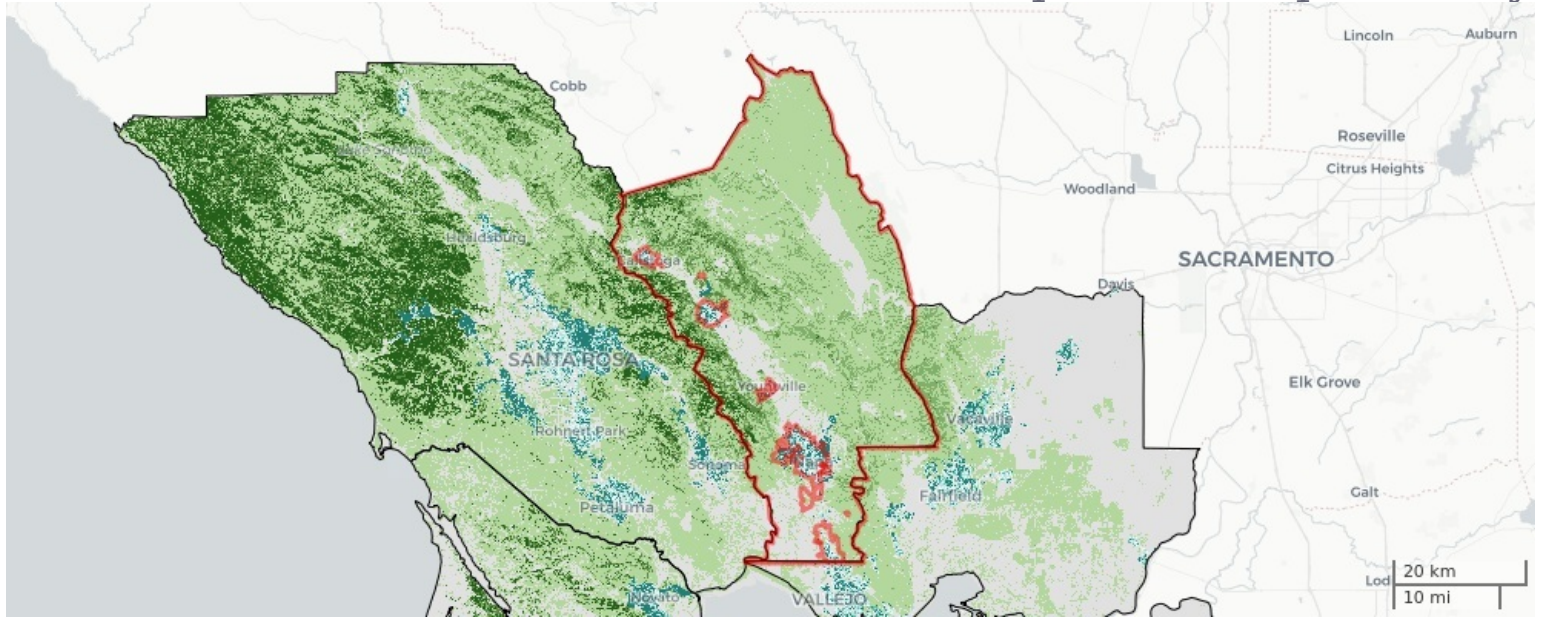
City Limits

— Boundary

Soil Carbon Storage

- 0 Metric tons CO2/hectare
- 0-25 Metric tons CO2/hectare
- 26-50 Metric tons CO2/hectare
- 51-100 Metric tons CO2/hectare
- More than 100 Metric tons CO2/hectare

Unincorporated Napa County



County Boundaries

- Boundary

Aboveground Carbon Storage

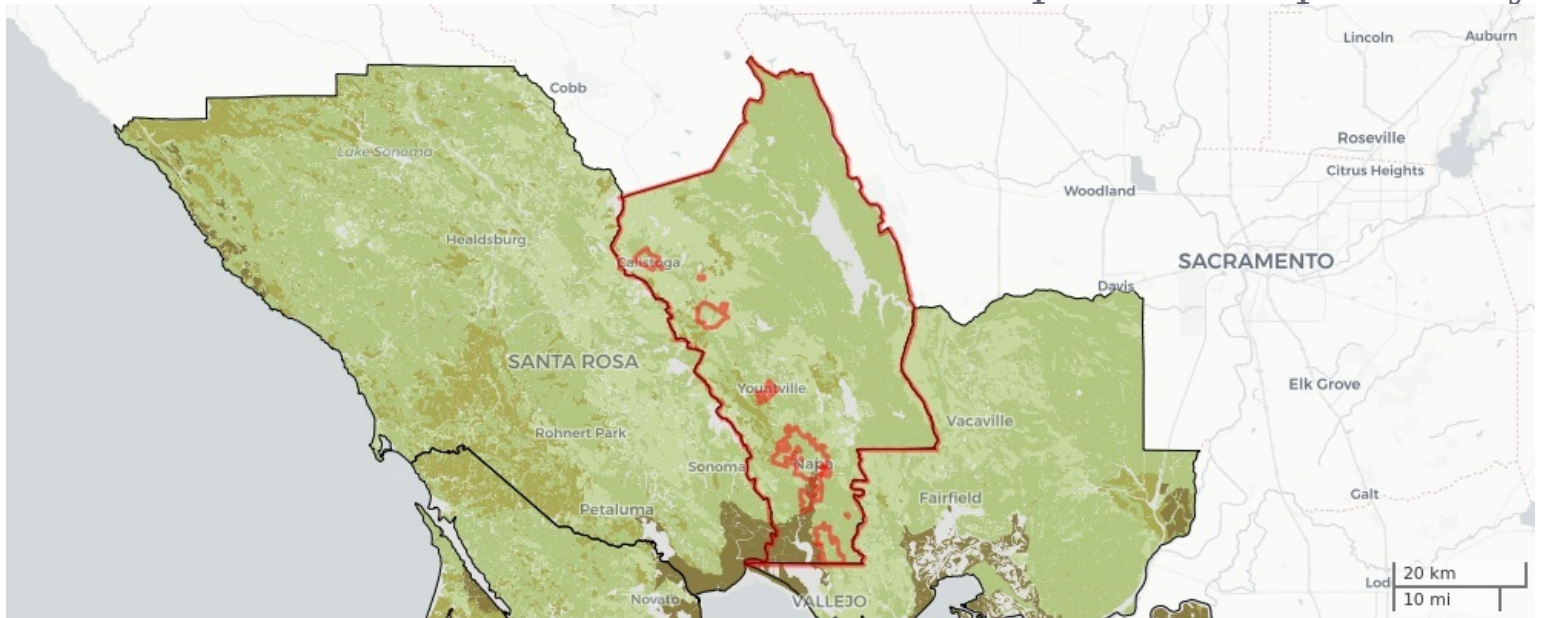
- 0 Metric tons CO₂/hectare
 0-25 Metric tons CO₂/hectare
 26-50 Metric tons CO₂/hectare
 51-100 Metric tons CO₂/hectare
 More than 100 Metric tons CO₂/hectare

Urban Forest Carbon Storage

- 0 Metric tons CO2/hectare
0-25 Metric tons CO2/hectare
26-50 Metric tons CO2/hectare
51-100 Metric tons CO2/hectare
More than 100 Metric tons CO2/hectare

BAY AREA GREENPRINT

Unincorporated Napa County

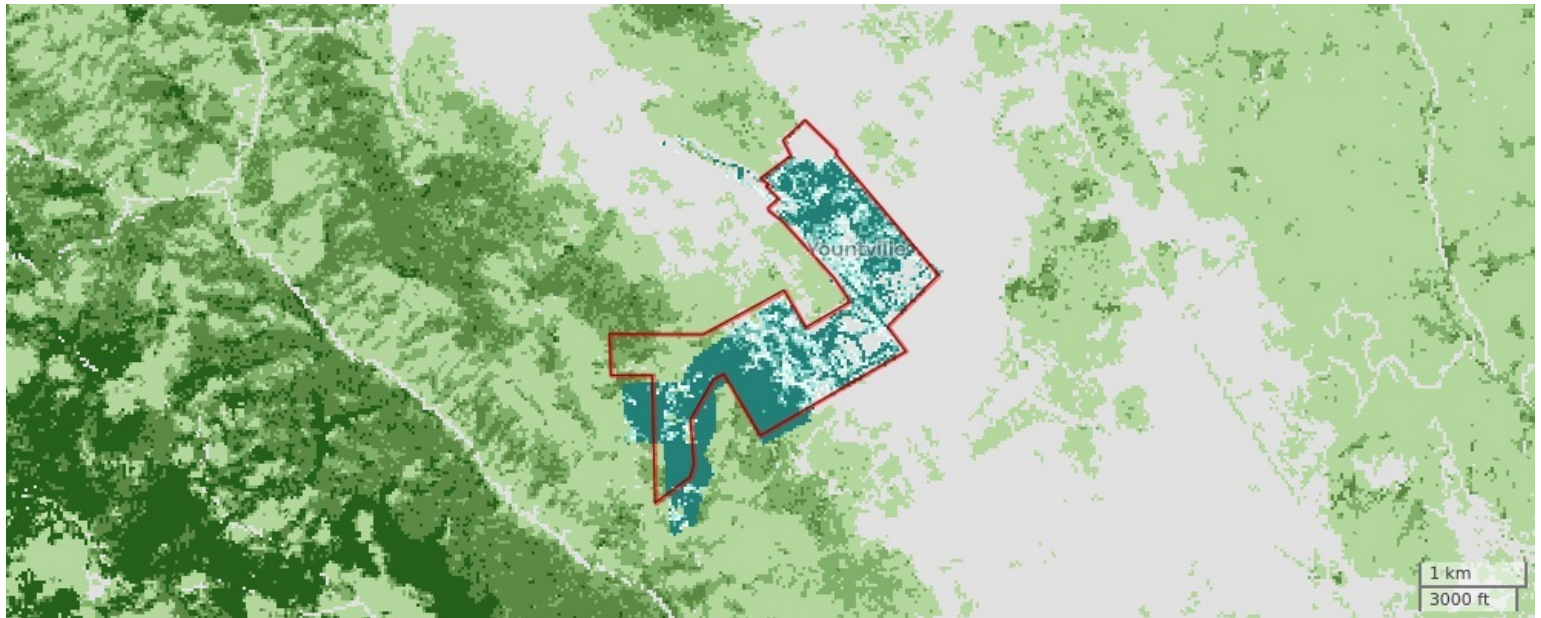


County Boundaries

- Boundary

Soil Carbon Storage

- 0 Metric tons CO2/hectare
- 0-25 Metric tons CO2/hectare
- 26-50 Metric tons CO2/hectare
- 51-100 Metric tons CO2/hectare
- More than 100 Metric tons CO2/hectare



City Limits

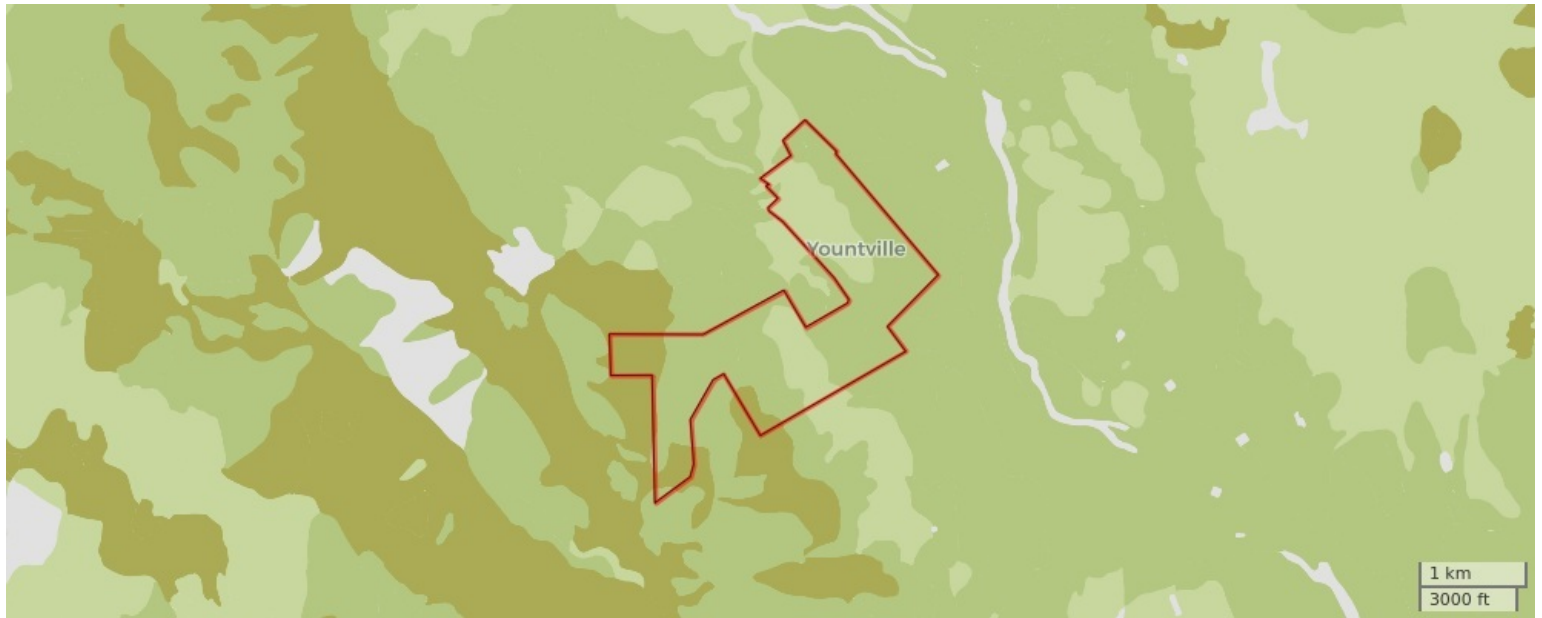
— Boundary

Aboveground Carbon Storage

- 0 Metric tons CO₂/hectare
- 0-25 Metric tons CO₂/hectare
- 26-50 Metric tons CO₂/hectare
- 51-100 Metric tons CO₂/hectare
- More than 100 Metric tons CO₂/hectare

Urban Forest Carbon Storage

- 0 Metric tons CO₂/hectare
- 0-25 Metric tons CO₂/hectare
- 26-50 Metric tons CO₂/hectare
- 51-100 Metric tons CO₂/hectare
- More than 100 Metric tons CO₂/hectare



City Limits

— Boundary

Soil Carbon Storage

- 0 Metric tons CO₂/hectare
- 0-25 Metric tons CO₂/hectare
- 26-50 Metric tons CO₂/hectare
- 51-100 Metric tons CO₂/hectare
- More than 100 Metric tons CO₂/hectare