



NATURAL AND WORKING LANDS CLIMATE SMART STRATEGY

DRAFT FOR PUBLIC COMMENT



APPENDIX C

End Notes



OCTOBER 11, 2021

Draft Natural and Working Lands Climate Smart Strategy Appendices for Public Comment

Appendix C

1 Seddon, N., S. Sengupta, M. García-Espinosa, I. Hauler, D. Herr, and A.R. Rizvi. Nature-based Solutions in Nationally Determined Contributions: Synthesis and recommendations for enhancing climate ambition and action by 2020, (Gland, Switzerland and Oxford, UK: IUCN and University of Oxford, 2019).

<https://portals.iucn.org/library/sites/library/files/documents/2019-030-En.pdf>.

2 LANDFIRE: LANDFIRE Existing Vegetation Type layer. (2013 - 2021). U.S. Department of Interior, Geological Survey. [Online]. Available:

https://landfire.gov/version_download.php [Accessed: February 3, 2021].

LANDFIRE:LANDFIRE Biophysical Setting layer. (2013 - 2021). U.S. Department of Interior, Geological Survey [Online]. Available:

https://landfire.gov/version_download.php [Accessed: February 3, 2021]; Bell, T, K.

Cavanaugh, D. Siegel. 2020. SBC LTER: Time series of quarterly NetCDF files of kelp biomass in the canopy from Landsat 5, 7 and 8, since 1984 (ongoing) ver 13.

Environmental Data Initiative.

<https://doi.org/10.6073/pasta/5d3fb6fd293bd403a0714d870a4dd7d8>. Accessed 2021-

04-08.(Data extraction performed by T. Bell April 8, 2021); Eelgrass Survey GIS Data version 2.0 (2017, updated 2020), National Marine Fisheries Service West Coast

Region. Available: [https://www.sfei.org/data/eelgrass-survey-gis-](https://www.sfei.org/data/eelgrass-survey-gis-data#sthash.u94SjLu7.afUwqGJA.dpbs)

[data#sthash.u94SjLu7.afUwqGJA.dpbs](https://www.sfei.org/data/eelgrass-survey-gis-data#sthash.u94SjLu7.afUwqGJA.dpbs) [Accessed: April 6, 2021).

3 State of California, California Air Resources Board. California's 2017 Climate Change Scoping Plan (2017).

https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf.

4 "The UN Environment Programme and Nature-Based Solutions." United Nations Environment Programme, 2020. <https://www.unep.org/unga/our-position/unep-and-nature-based-solutions>.

5 State of California, California Air Resources Board. California's 2017 Climate Change Scoping Plan (2017).

https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf.

6 "A Student's Guide to Global Climate Change." U.S. Environmental Protection Agency. U.S. Environmental Protection Agency, May 10, 2017.

<https://archive.epa.gov/climatechange/kids/index.html>.

**Draft Natural and Working Lands Climate Smart Strategy
Appendices for Public Comment**

7 State of California, California Air Resources Board. An Inventory of Ecosystem Carbon in California's Natural & Working Lands: 2018 Edition (2018).

https://ww3.arb.ca.gov/cc/inventory/pubs/nwl_inventory.pdf.

8 *An IPCC Special Report on Climate Change, Desertification, Land Degradation, Sustainable Land Management, Food Security, and Greenhouse Gas Fluxes in Terrestrial Ecosystems*. Intergovernmental Panel on Climate Change (IPCC), 2019.

<https://www.ipcc.ch/srccl/download/>.

9 State of California, California Air Resources Board, California's 2017 Climate Change Scoping Plan (2017).

https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf.

10 State of California, Executive Department. Executive Order N-10-21 (2021).

<https://www.gov.ca.gov/wp-content/uploads/2021/07/7.8.21-Conservation-EO-N-10-21.pdf>.

11 State of California, Governor's Forest Management Task Force. California's Wildfire and Forest Resilience Action Plan (2021).

<https://www.fire.ca.gov/media/ps4p2vck/californiawildfireandforestresilienceactionplan.pdf>.

12 Newberry, Laura. "Death Valley Hits 130 Degrees, Thought to Be Highest Temperature on Earth in Nearly a Century." *Los Angeles Times*, August 16, 2020.

<https://www.latimes.com/california/story/2020-08-16/death-valley-hits-130-degrees-thought-to-be-earths-highest-temperature-in-more-a-century>.

13 Bedsworth, L., D. Cayan, G. Franco, L. Fisher, S. Ziaja. (California Governor's Office of Planning and Research, Scripps Institution of Oceanography, California Energy Commission, California Public Utilities Commission). 2018.

Statewide Summary Report, California's Fourth Climate Change Assessment. Publication number: SUMCCCA4-2018-013.

https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf.

14 Ibid.

15 Ibid.

16 Ibid.

**Draft Natural and Working Lands Climate Smart Strategy
Appendices for Public Comment**

17 Sievanen, L., J. Phillips, C. Colgan, G. Griggs, J. Finzi Hart, E. Hartge, T. Hill, R. Kudela, N. Mantua, K. Nielsen, L. Whiteman. 2018. California's Coast and Ocean Summary Report, California's Fourth Climate Change Assessment.

Publication number: SUMCCC4A-2018-011.

https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-011_OceanCoastSummary_ADA.pdf.

18 Bedsworth, L., D. Cayan, G. Franco, L. Fisher, S. Ziaja. (California Governor's Office of Planning and Research, Scripps Institution of Oceanography, California Energy Commission, California Public Utilities Commission). 2018.

Statewide Summary Report, California's Fourth Climate Change Assessment.

Publication number: SUMCCCA4-2018-013.

https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf.

19 Maco, S.E., E.G. McPherson, J.R. Simpson, P.J. Peper, Q. Xiao. (U.S. Department of Agriculture, Forest Service, Center for Urban Forest Research, Pacific Southwest Research Station) City of San Francisco, California Street Tree Resource Analysis (2003).

https://www.fs.fed.us/psw/topics/urban_forestry/products/2/psw_cufr732_SanFrancisco_MBCA_web.pdf; "Planting Tree Equity and Career Pathways for Underserved Communities." Career Pathways Initiative. American Forests, May 18, 2021.

<https://www.americanforests.org/our-work/urban-forestry/workforce-development/>;

State of California, California Natural Resources Agency. Urban Greening Program Final Guidelines (2020). [https://resources.ca.gov/-/media/CNRA-](https://resources.ca.gov/-/media/CNRA-Website/Files/grants/GGRE_UG/Urban-Greening-Program-Guidelines--Round-Four_2021.pdf)

[Website/Files/grants/GGRE_UG/Urban-Greening-Program-Guidelines--Round-Four_2021.pdf](https://resources.ca.gov/-/media/CNRA-Website/Files/grants/GGRE_UG/Urban-Greening-Program-Guidelines--Round-Four_2021.pdf); State of California, California Air Resources Board. Quantification

Methodology: California Natural Resources Agency Urban Greening Grant Program (2020).

https://ww2.arb.ca.gov/sites/default/files/classic/cc/capandtrade/auctionproceeds/cnr_a_ug_finalqm.pdf.

20 U.S. Environmental Protection Agency, Office of Water. Economic Benefits of Wetlands (2006).

<https://nepis.epa.gov/Exe/ZyPDF.cgi/2000D2PF.PDF?Dockkey=2000D2PF.PDF>;

Alexander, S., and R. McInnes. The Benefits of Wetland Restoration. Ramsar Convention on Wetlands, May 2012.

<https://www.ramsar.org/sites/default/files/documents/library/bn4-en.pdf>; "Riparian Restoration." Compost and Mulch Use Toolbox. California Department of Resources Recycling and Recovery, October 9, 2019.

**Draft Natural and Working Lands Climate Smart Strategy
Appendices for Public Comment**

<https://www.calrecycle.ca.gov/organics/compostmulch/toolbox/riparianrestor>; Norris, Elizabeth. Riparian Restoration. Virginia Institute of Marine Science, 2001.
http://ccrm.vims.edu/publications/wetlands_technical_reports/01-6-Riparian-Restoration.pdf.

21 State of California, California Department of Food and Agriculture. CDFA Healthy Soils Program (2021).
https://www.cdfa.ca.gov/oefi/healthysoils/docs/HSP_flyer_2021.pdf; U.S. Department of Agriculture, Northeast Climate Hub. Managing Grazing to Improve Climate Resilience (2019).
https://www.climatehubs.usda.gov/sites/default/files/GrazingFactsheet_Feb2019_web508.pdf; Gosnell, H., S. Chamley, and P. Stanley. "Climate Change Mitigation as a Co-Benefit of Regenerative Ranching: Insights from Australia and the United States." Interface Focus 10 (2020). <https://doi.org/20200027>; "Grazing." Fire in California. University of California Cooperative Extension, n.d.
<https://ucanr.edu/sites/fire/Prepare/Treatment/Grazing>.

22 Taylor, Mac (Legislative Analyst's Office). Improving California's Forest and Watershed Management (2018). <https://lao.ca.gov/reports/2018/3798/forest-watershed-management-040418.pdf>; SB 859 Wood Products Working Group Recommendations to Expand Wood Products Markets in California: Investing in communities and California's climate resilient future (2017).
<https://resources.ca.gov/CNRALegacyFiles/wp-content/uploads/2014/07/Wood-Products-Recommendations.pdf>; U.S. Department of Agriculture, Forest Service. Nature's Benefits from Your National Forests (2020).
<https://www.fs.fed.us/emc/economics/documents/at-a-glance/benefits-to-people/pacificsw/BTP-Sierra.pdf>.

23 "Regional Workshops - Spring 2021." Expanding nature-based solutions to achieve California's climate change and biodiversity goals. California Natural Resources Agency, May 2021. <https://www.californianature.ca.gov/pages/getinvolved#regional>.

24 State of California, Governor's Office of Planning and Research, Integrated Climate Adaptation and Resiliency Program (ICARP). Defining Vulnerable Communities in the Context of Climate Adaptation (2018).
https://opr.ca.gov/docs/20200720-Vulnerable_Communities.pdf; Rothstein, Richard. The Color of Law: A Forgotten History of How Our Government Segregated America. New York, New York: Liveright Publishing Corporation, a division of W.W. Norton & Company, 2018; State of California, California Environmental Protection Agency, Pollution and Prejudice: Redlining and Environmental Injustice in California (2021).
<https://storymaps.arcgis.com/stories/f167b251809c43778a2f9f040f43d2f5>.

**Draft Natural and Working Lands Climate Smart Strategy
Appendices for Public Comment**

25 State of California, Strategic Growth Council. California Strategic Growth Council's Racial Equity Resolution (2020). https://sgc.ca.gov/news/2020/docs/20200826-Racial_Equity_Resolution.pdf.

26 Rodriguez, G., S. Celedon, B.R. Middleton Manning, A.S. Sanchez, C. Schell, and M. Walker. Using Nature-Based Solutions to Advance Equity: Advisory Panel Summary Document, June 8, 2021. <https://www.californianature.ca.gov/pages/get-involved#topical>.

27 State of California, Strategic Growth Council. California Strategic Growth Council's Racial Equity Resolution (2020). https://sgc.ca.gov/news/2020/docs/20200826-Racial_Equity_Resolution.pdf.

28 State of California, California Natural Resources Agency. Climate Justice Chapter, Safeguarding California Plan: 2018 Update (2018). <https://files.resources.ca.gov/docs/climate/safeguarding/update2018/safeguarding-california-plan-2018-update.pdf>.

29 Rodriguez, G., S. Celedon, B.R. Middleton Manning, A.S. Sanchez, C. Schell, and M. Walker. Using Nature-Based Solutions to Advance Equity: Advisory Panel Summary Document, June 8, 2021. <https://www.californianature.ca.gov/pages/getinvolved#topical>.

30 Goode, R., S. Gaughen, M. Fierro, D. Hankins, K. Johnson-Reyes, B.R. Middleton, T. Red Owl, R. Yonemura. 2018. Summary Report from Tribal and Indigenous Communities within California, California's Fourth Climate Change Assessment. Publication number: SUMCCCA4-2018-010. https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-010_TribalCommunitySummary_ADA.pdf.

31 State of California, Executive Department. Executive Order N-15-19 (2019). <https://www.gov.ca.gov/wp-content/uploads/2019/06/6.18.19-Executive-Order.pdf>; State of California, Office of the Governor. Statement of Administration Policy: Native American Ancestral Lands (2020). <http://www.gov.ca.gov/wp-content/uploads/2020/09/9.25.20-Native-Ancestral-Lands-Policy.pdf>.

32 Goode, R., S. Gaughen, M. Fierro, D. Hankins, K. Johnson-Reyes, B.R. Middleton, T. Red Owl, R. Yonemura. 2018. Summary Report from Tribal and Indigenous Communities within California, California's Fourth Climate Change Assessment. Publication number: SUMCCCA4-2018-010.

**Draft Natural and Working Lands Climate Smart Strategy
Appendices for Public Comment**

https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-010_TribalCommunitySummary_ADA.pdf.

33 Plumer, Brad, and Nadja Popovich. "How Decades of Racist Housing Policy Left Neighborhoods Sweltering." The New York Times. August 24, 2020.

<https://www.nytimes.com/interactive/2020/08/24/climate/racism-redlining-citiesglobal-warming.html>; Hoffman, Jeremy S., Vivek Shandas, and Nicholas Pendleton. "The Effects of Historical Housing Policies on Resident Exposure to Intra-Urban Heat: A Study of 108 US Urban Areas." Climate 8, no. 1 (January 13, 2020).
<https://doi.org/10.3390/cli8010012>.

34 Rodriguez, G., S. Celedon, B.R. Middleton Manning, A.S. Sanchez, C. Schell, and M. Walker. Using Nature-Based Solutions to Advance Equity: Advisory Panel Summary Document, June 8, 2021. <https://www.californianature.ca.gov/pages/get-involved#topical>.

35 Rodriguez, G., S. Celedon, B.R. Middleton Manning, A.S. Sanchez, C. Schell, and M. Walker. Using Nature-Based Solutions to Advance Equity: Advisory Panel Summary Document, June 8, 2021. <https://www.californianature.ca.gov/pages/get-involved#topical>; State of California, California Natural Resources Agency. Climate Justice Chapter, Safeguarding California Plan: 2018 Update (2018).
<https://files.resources.ca.gov/docs/climate/safeguarding/update2018/safeguarding-california-plan-2018-update.pdf>.

36 "Park Access Tool." Parks for All Californians. State of California, California Department of Parks and Recreation, n.d.
<https://www.parksforcalifornia.org/parkaccess/?overlays1=parks%2Cnoparkaccess%2Cparkaccess%2Cnopopulation&overlays2=parks%2Cparksper1000>.

37 The Trust for Public Land, "Parks and an Equitable Recovery," (2021),
<https://tpl.org/parks-and-an-equitable-recovery-parkscore-report>.

38 Rodriguez, G., S. Celedon, B.R. Middleton Manning, A.S. Sanchez, C. Schell, and M. Walker. Using Nature-Based Solutions to Advance Equity: Advisory Panel Summary Document, June 8, 2021. <https://www.californianature.ca.gov/pages/get-involved#topical>.

39 Cal. Government Code § 7290 et seq.

40 Cal. Government Code §6219.

41 State of California, California Natural Resources Agency. Climate Justice Chapter, Safeguarding California Plan: 2018 Update (2018).

**Draft Natural and Working Lands Climate Smart Strategy
Appendices for Public Comment**

<https://files.resources.ca.gov/docs/climate/safeguarding/update2018/safeguarding-california-plan-2018-update.pdf>.

42 “Explore the Biodiversity Hotspots.” Critical Ecosystem Partnership Fund. Critical Ecosystem Partnership Fund, n.d. <https://www.cepf.net/our-work/biodiversity-hotspots>; “Why Are Biodiversity Hotspots Important?” Biodiversity Hotspots. Conservation International, n.d. <https://www.conservation.org/priorities/biodiversity-hotspots>.

43 LANDFIRE: LANDFIRE Existing Vegetation Type layer. (2013 - 2021). U.S. Department of Interior, Geological Survey. [Online]. Available: https://landfire.gov/version_download.php [Accessed: February 3, 2021]. LANDFIRE: LANDFIRE Biophysical Setting layer. (2013 - 2021). U.S. Department of Interior, Geological Survey [Online]. Available: https://landfire.gov/version_download.php [Accessed: February 3, 2021].

44 North, Malcolm, Peter Stine, Kevin O’Hara, William Zielinski, and Scott Stephens. “An ecosystem management strategy for Sierran mixed-conifer forests.” Gen. Tech. Rep. PSW-GTR-220 (Second printing, with addendum). Albany, CA: US Department of Agriculture, Forest Service, Pacific Southwest Research Station. 49 p 220 (2009). https://www.fs.fed.us/psw/publications/documents/psw_gtr220/psw_gtr220.pdf.

45 Anderson, M. Kat. Native American Knowledge and the Management of California’s Natural Resources. University of California Press, 2005. <https://doi.org/10.1525/9780520933101>; Marks-Block, Tony, and William Tripp. “Facilitating Prescribed Fire in Northern California through Indigenous Governance and Interagency Partnerships.” Fire 4, no. 3 (July 16, 2021): 37. <https://doi.org/10.3390/fire4030037>.

46 Kane, Van R., et al. “First-Entry Wildfires Can Create Opening and Tree Clump Patterns Characteristic of Resilient Forests.” Forest Ecology and Management 454 (2019): 117659. <https://doi.org/10.1016/j.foreco.2019.117659>.

47 Stephens, et al. “Drought, Tree Mortality, and Wildfire in Forests Adapted to Frequent Fire.” BioScience 68, no. 2 (2018): 77–88. <https://doi.org/10.1093/biosci/bix146>; Gray, A. N., H. S. J. Zald, R. A. Kern, and M. North. 2005. “Stand conditions associated with tree regeneration in Sierran mixed-conifer forests.” Forest Science 51:198–210. DOI:10.1093/FORRESTSCIENCE/51.3.198; Cocking, Matthew I., J. Morgan Varner, and Rosemary L. Sherriff. “California Black Oak Responses to Fire Severity and Native Conifer Encroachment in the Klamath Mountains.” Forest Ecology and Management 270 (2012): 25–34. <https://doi.org/10.1016/j.foreco.2011.12.039>.

**Draft Natural and Working Lands Climate Smart Strategy
Appendices for Public Comment**

48 Gonzalez, Patrick, John J. Battles, Brandon M. Collins, Timothy Robards, and David S. Saah. "Aboveground Live Carbon Stock Changes of California Wildland Ecosystems, 2001–2010." *Forest Ecology and Management* 348 (March 20, 2015): 68–77. <https://doi.org/10.1016/j.foreco.2015.03.040>.

49 North, M P, et al. "Pyrosilviculture Needed for Landscape Resilience of Dry Western United States Forests." *Journal of Forestry*, May 21, 2021. <https://doi.org/10.1093/jofore/fvab026>.

50 Moore, J., M. Woods, and D. Greenberg. (U.S. Department of Agriculture, Forest Service, Pacific Southwest Region, Forest Health Monitoring Program), 2019 Aerial Survey Results: California (2020). Report no. R5-PR-034 https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd700809.pdf.

51 State of California, California Air Resources Board, Public Comment Draft: Greenhouse Gas Emissions of Contemporary Wildfire, Prescribed Fire, and Forest Management Activities (December 2020). https://ww3.arb.ca.gov/cc/inventory/pubs/ca_ghg_wildfire_forestmanagement.pdf.

52 Krofcheck, Daniel J., Matthew D. Hurteau, Robert M. Scheller, and E. Louise Loudermilk. "Prioritizing Forest Fuels Treatments Based on the Probability of High Severity Fire Restores Adaptive Capacity in Sierran Forests." *Global Change Biology* 24, no. 2 (2017): 729–37. <https://doi.org/10.1111/gcb.13913>; Stephens, et al. "Drought, Tree Mortality, and Wildfire in Forests Adapted to Frequent Fire." *BioScience* 68, no. 2 (2018): 77–88. <https://doi.org/10.1093/biosci/bix146>.

53 Battles, John, David Bell, Robert Kennedy, David Saah, Brandon Collins, Robert York, John Sanders. (University of California, Berkeley). 2018. Innovations in Measuring and Managing Forest Carbon Stocks in California. California's Fourth Climate Change Assessment, California Natural Resources Agency. Publication number: CCCA4-CNRA2018-014. https://www.energy.ca.gov/sites/default/files/2019-12/Forests_CCCA4-CNRA-2018-014_ada.pdf.

54 Wiechmann, Morgan L., et al. "The Carbon Balance of Reducing Wildfire Risk and Restoring Process: an Analysis of 10-Year Post-Treatment Carbon Dynamics in a Mixed-Conifer Forest." *Climatic Change* 132, no. 4 (2015):709–19. <https://doi.org/10.1007/s10584-015-1450-y>.

55 Krofcheck, D.J., C.C. Remy, A. R. Keyser, and M.D. Hurteau. "Optimizing Forest Management Stabilizes Carbon Under Projected Climate and Wildfires." *Journal of Geophysical Research: Biogeosciences* 124, no. 10 (October 2019): 3075–87. <https://doi.org/10.1029/2019jg005206>.

**Draft Natural and Working Lands Climate Smart Strategy
Appendices for Public Comment**

56 Stephenson, N. L., et al. "Rate of Tree Carbon Accumulation Increases Continuously with Tree Size." *Nature* 507, no. 7490 (2014): 90–93.
<https://doi.org/10.1038/nature12914>.

57 Christensen, G.A., Gray, A.N., Kuegler, O., Tase, N.A., Rosenberg, M. (2017). AB 1504 California Forest Ecosystem and Harvested Wood Product Carbon Inventory: 2006 - 2015. Final Report. California Department of Forestry and Fire Protection agreement no. 7CA02025. Sacramento, CA: California Department of Forestry and Fire Protection and California Board of Forestry and Fire Protection. 390 p.

58 Dore, Sabina, et al. "Recovery of Ponderosa Pine Ecosystem Carbon and Water Fluxes from Thinning and Stand-Replacing Fire." *Global Change Biology* 18, no. 10 (July 30, 2012): 3171–85. <https://doi.org/10.1111/j.1365-2486.2012.02775.x>; Hood, Sharon M., Daniel R. Cluck, Bobette E. Jones, and Sean Pinnell. "Radial and Stand-Level Thinning Treatments: 15-Year Growth Response of Legacy Ponderosa and Jeffrey Pine Trees." *Restoration Ecology* 26, no. 5 (2017): 813–19. <https://doi.org/10.1111/rec.12638>.

59 Coppoletta, Michelle, Kyle E. Merriam, and Brandon M. Collins. "Post-Fire Vegetation and Fuel Development Influences Fire Severity Patterns in Reburns." *Ecological Applications* 26, no. 3 (2016): 686–99. <https://doi.org/10.1890/15-0225>.

60 Kueppers, L., J.K. Gilles, P. Gonzalez, T.M. Hill, E. Margulies, and T.B. Pathak. Expanding Climate Action Through Nature-Based Solutions: Advisory Panel Summary Document, June 2, 2021. <https://www.californianature.ca.gov/pages/get-involved#topical>.

61 Wondzell, Steven M., Mousa Diabat, and Roy Haggerty. "What Matters Most: Are Future Stream Temperatures More Sensitive to Changing Air Temperatures, Discharge, or Riparian Vegetation?" *JAWRA Journal of the American Water Resources Association* 55, no. 1 (February 2019): 116–32. <https://doi.org/10.1111/1752-1688.12707>.

62 Restaino, Christina, et al. "Forest Structure and Climate Mediate Drought-Induced Tree Mortality in Forests of the Sierra Nevada, USA." *Ecological Applications* 29, no. 4 (June 2019). <https://doi.org/10.1002/eap.1902>.

63 SB 859 Wood Products Working Group. Recommendations to Expand Wood Products Markets in California: Investing in communities and California's climate resilient future (2017).
<https://resources.ca.gov/CNRALegacyFiles/wpcontent/uploads/2014/07/Wood-Products-Recommendations.pdf>.

**Draft Natural and Working Lands Climate Smart Strategy
Appendices for Public Comment**

64 Welch, Kevin R., Hugh D. Safford, and Truman P. Young. "Predicting Conifer Establishment Post Wildfire in Mixed Conifer Forests of the North American Mediterranean Climate Zone." *Ecosphere* 7, no. 12 (December 20, 2016). <https://doi.org/10.1002/ecs2.1609>.

65 LANDFIRE: LANDFIRE Existing Vegetation Type layer. (2013 - 2021). U.S. Department of Interior, Geological Survey. [Online]. Available: https://landfire.gov/version_download.php [Accessed: February 3, 2021]. LANDFIRE: LANDFIRE Biophysical Setting layer. (2013 - 2021). U.S. Department of Interior, Geological Survey [Online]. Available: https://landfire.gov/version_download.php [Accessed: February 3, 2021].

66 Schrader-Patton, Charlie C., and Emma C. Underwood. "New Biomass Estimates for Chaparral-Dominated Southern California Landscapes." *Remote Sensing* 13, no. 8 (April 19, 2021): 1581. <https://doi.org/10.3390/rs13081581>.

67 U.S. Department of Agriculture, Forest Service, Pacific Southwest Region, Remote Sensing Lab, FRID metadata (2020). https://www.fs.fed.us/r5/rsi/projects/gis/data/FRID/FRID_Metadata.html.

68 Gabrielle N. Bohlman, Emma C. Underwood, and Hugh D. Safford. "Estimating Biomass in California's Chaparral and Coastal Sage Scrub Shrublands." *Madroño* 65, no. 1 (January 1, 2018): 28–46. <https://doi.org/10.3120/0024-9637-65.1.28>.

69 LANDFIRE: LANDFIRE Existing Vegetation Type layer. (2013 - 2021). U.S. Department of Interior, Geological Survey. [Online]. Available: https://landfire.gov/version_download.php [Accessed: February 3, 2021]. LANDFIRE: LANDFIRE Biophysical Setting layer. (2013 - 2021). U.S. Department of Interior, Geological Survey [Online]. Available: https://landfire.gov/version_download.php [Accessed: February 3, 2021].

70 State of California, California Department of Food and Agriculture, California Agricultural Statistics Review, 2019-2020 (2020). https://www.cdfa.ca.gov/Statistics/PDFs/2020_Ag_Stats_Review.pdf.

71 Flint, L., Flint, A., Stern, M., Mayer, A., Vergara, S., Silver, W., Casey, F., Franco, F., Byrd, K., Sleeter, B., Alvarez, P., Creque, J., Estrada, T., Cameron, D. (U.S. Geological Survey). 2018. Increasing Soil Organic Carbon to Mitigate Greenhouse Gases and Increase Climate Resiliency for California. California's Fourth Climate Change Assessment, California Natural Resources Agency. Publication number: CCCA4-CNRA-2018-006. https://www.energy.ca.gov/sites/default/files/2019-11/Agriculture_CCCA4-CNRA-2018-006_ADA.pdf.

**Draft Natural and Working Lands Climate Smart Strategy
Appendices for Public Comment**

- 72 Lal, R. "Sequestering Carbon and Increasing Productivity by Conservation Agriculture." *Journal of Soil and Water Conservation* 70, no. 3 (May 2015). <https://doi.org/10.2489/jswc.70.3.55a>; Paustian, K., Lehmann, J., Ogle, S. et al. "Climate-smart soils." *Nature* 532, 49–57 (2016). <https://doi.org/10.1038/nature17174>.
- 73 Smith, Christopher W. (U.S. Department of Agriculture, Natural Resources Conservation Service, National Soil Survey Center), "Effects of Implementation of Soil Health Management Practices on Infiltration, Hydraulic Conductivity (Ksat), and Runoff" (2017); Horwath, W.R., J.P. Mitchell, and J.W. Six. Publication. Tillage and Crop Management Effects on Air, Water, and Soil Quality in California. University of California, Division of Agriculture and Natural Resources, Publication No. 8331, September 2008. <https://anrcatalog.ucanr.edu/pdf/8331.pdf>; Tiemann, L. K., A. S. Grandy, E. E. Atkinson, E. Marin-Spiotta, and M. D. McDaniel. "Crop Rotational Diversity Enhances Belowground Communities and Functions in an Agroecosystem." *Ecology Letters* 18, no. 8 (August 2015): 761–71. <https://doi.org/10.1111/ele.12453>.
- 74 LANDFIRE: LANDFIRE Existing Vegetation Type layer. (2013 - 2021). U.S. Department of Interior, Geological Survey. [Online]. Available: https://landfire.gov/version_download.php [Accessed: February 3, 2021]. LANDFIRE: LANDFIRE Biophysical Setting layer. (2013 - 2021). U.S. Department of Interior, Geological Survey [Online]. Available: https://landfire.gov/version_download.php [Accessed: February 3, 2021].
- 75 Kirwan, M., Megonigal, J. Tidal wetland stability in the face of human impacts and sea-level rise. *Nature* 504, 53–60 (2013). <https://doi.org/10.1038/nature12856>; Granek, Elise F., et al. "Ecosystem Services as a Common Language for Coastal Ecosystem-Based Management." *Conservation Biology* 24, no. 1 (February 2010): 207–16. <https://doi.org/10.1111/j.1523-1739.2009.01355.x>.
- 76 Dahl, T.E. (U.S. Department of the Interior, Fish and Wildlife Service). Wetland losses in the United States, 1780s to 1980s (1990). <https://www.fws.gov/wetlands/documents/Wetlands-Losses-in-the-United-States-1780s-to-1980s.pdf>.
- 77 Chmura, Gail L., Shimon C. Anisfeld, Donald R. Cahoon, and James C. Lynch. "Global Carbon Sequestration in Tidal, Saline Wetland Soils." *Global Biogeochemical Cycles* 17, no. 4 (December 2003). <https://doi.org/10.1029/2002gb001917>.
- 78 Ward, M. A., Hill, T. M., Souza, C., Filipczyk, T., Ricart, A. M., Merolla, S., Capece, L. R., O'Donnell, B. C., Elsmore, K., Oechel, W. C., and Beheshti, K. M. "Blue Carbon Stocks and Exchanges Along the Pacific West Coast." *Biogeosciences Discuss.* [preprint], in

**Draft Natural and Working Lands Climate Smart Strategy
Appendices for Public Comment**

review, February 17, 2021. <https://doi.org/10.5194/bg-2021-27>; Wedding, L.M., M. Moritsch, G. Verutes, K. Arkema, E. Hartge, J. Reiblich, J. Douglass, S. Taylor, and A.L. Strong. "Incorporating Blue Carbon Sequestration Benefits into Sub-National Climate Policies." *Global Environmental Change*, March 8, 2021, 102206. <https://doi.org/10.1016/j.gloenvcha.2020.102206>; Holmquist, J.R., Windham-Myers, L., Bliss, N. et al. "Accuracy and Precision of Tidal Wetland Soil Carbon Mapping in the Conterminous United States." *Sci Rep* 8, 9478 (2018). <https://doi.org/10.1038/s41598-018-26948-7>.

79 Deverel, Steven J., Sabina Dore, and Curtis Schmutte. "Solutions for Subsidence in the California Delta, USA, an Extreme Example of Organic-Soil Drainage Gone Awry." *Proceedings of the International Association of Hydrological Sciences* 382 (April 23, 2020): 837–42. <https://doi.org/10.5194/piahs-382-837-2020>.

80 Thorne, Karen, et al. "U.S. Pacific Coastal Wetland Resilience and Vulnerability to Sea-Level Rise." *Science Advances* 4, no. 2 (February 21, 2018). <https://doi.org/10.1126/sciadv.aao3270>.

81 Moomaw, W.R., Chmura, G.L., Davies, G.T. et al. *Wetlands in a Changing Climate: Science, Policy and Management*. *Wetlands* 38, 183–205 (2018). <https://doi.org/10.1007/s13157-018-1023-8>.

82 U.S. Environmental Protection Agency, Office of Water. *Economic Benefits of Wetlands* (2006). <https://nepis.epa.gov/Exe/ZyPDF.cgi/2000D2PF.PDF?Dockkey=2000D2PF.PDF>.

83 Drew, W. M., et al. *Sierra Meadows Strategy*. Sierra Meadows Partnership Paper 1: PP 40, (2016), https://meadows.ucdavis.edu/files/Sierra_Meadow_Strategy_full_report_SHAREABLE_mid.pdf.

84 U.S. Environmental Protection Agency, Office of Water. *Economic Benefits of Wetlands* (2006). <https://nepis.epa.gov/Exe/ZyPDF.cgi/2000D2PF.PDF?Dockkey=2000D2PF.PDF>.

85 Eelgrass Survey GIS Data version 2.0 (2017, updated 2020), National Marine Fisheries Service West Coast Region. Available: <https://www.sfei.org/data/eelgrass-survey-gis-data#sthash.u94SjLu7.afUwqGJA.dpbs> [Accessed: April 6, 2021]; Bell, T, K. Cavanaugh, D. Siegel. 2020. SBC LTER: Time series of quarterly NetCDF files of kelp biomass in the canopy from Landsat 5, 7 and 8, since 1984 (ongoing) ver 13. Environmental Data Initiative. <https://doi.org/10.6073/pasta/5d3fb6fd293bd403a0714d870a4dd7d8>. Accessed 2021-04-08. (Data extraction performed by T. Bell April 8, 2021).

**Draft Natural and Working Lands Climate Smart Strategy
Appendices for Public Comment**

86 Ward, M. A., Hill, T. M., Souza, C., Filipczyk, T., Ricart, A. M., Merolla, S., Capece, L. R., O'Donnell, B. C., Elsmore, K., Oechel, W. C., and Beheshti, K. M. "Blue Carbon Stocks and Exchanges Along the Pacific West Coast." *Biogeosciences Discuss.* [preprint], in review, February 17, 2021. <https://doi.org/10.5194/bg-2021-27>; Prentice, Carolyn, Margot Helling-Lewis, Rhea Sanders-Smith, and Anne K. Salomon. "Reduced Water Motion Enhances Organic Carbon Stocks in Temperate Eelgrass Meadows." *Limnology and Oceanography* 64, no. 6 (2019): 2389–2404. <https://doi.org/10.1002/lno.11191>; Kauffman, J. Boone, Leila Giovanonni, James Kelly, Nicholas Dunstan, Amy Borde, Heida Diefenderfer, Craig Cornu, Christopher Janousek, Jude Apple, and Laura Brophy. "Total Ecosystem Carbon Stocks at the Marine-Terrestrial Interface: Blue Carbon of the Pacific Northwest Coast, United States." *Global Change Biology* 26, no. 10 (August 11, 2020): 5679–92. <https://doi.org/10.1111/gcb.15248>.

87 Orth, Robert J., et al. "A Global Crisis for Seagrass Ecosystems." *BioScience* 56, no. 12 (December 2006): 987–96. [https://doi.org/10.1641/0006-3568\(2006\)56\[987:agcfse\]2.0.co;2](https://doi.org/10.1641/0006-3568(2006)56[987:agcfse]2.0.co;2); Smith, Shannen M., Hamish A. Malcolm, Ezequiel M. Marzinelli, Arthur L. Schultz, Peter D. Steinberg, and Adriana Vergés. "Tropicalization and Kelp Loss Shift Trophic Composition and Lead to More Winners than Losers in Fish Communities." *Global Change Biology* 27, no. 11 (2021): 2537–48. <https://doi.org/10.1111/gcb.15592>.

88 Rogers-Bennett, L., Catton, C.A. "Marine heat wave and multiple stressors tip bull kelp forest to sea urchin barrens." *Sci Rep* 9, 15050 (2019). <https://doi.org/10.1038/s41598-019-51114-y>.

89 Orth, Robert J., et al. "Restoration of Seagrass Habitat Leads to Rapid Recovery of Coastal Ecosystem Services." *Science Advances* 6, no. 41 (October 7, 2020). <https://doi.org/10.1126/sciadv.abc6434>; Duarte, Carlos M., Jiaping Wu, Xi Xiao, Annette Bruhn, and Dorte Krause-Jensen. "Can Seaweed Farming Play a Role in Climate Change Mitigation and Adaptation?" *Frontiers in Marine Science* 4 (April 12, 2017). <https://doi.org/10.3389/fmars.2017.00100>; Hirsh, Heidi K., et al. "Drivers of Biogeochemical Variability in a Central California Kelp Forest: Implications for Local Amelioration of Ocean Acidification." *Journal of Geophysical Research: Oceans* 125, no. 11 (October 22, 2020). <https://doi.org/10.1029/2020jc016320>; Ricart, Aurora M., et al. "Coast-Wide Evidence of Low PH Amelioration by Seagrass Ecosystems." *Global Change Biology* 27, no. 11 (March 31, 2021): 2580–91. <https://doi.org/10.1111/gcb.15594>.

90 Macreadie, P.I., Anton, A., Raven, J.A. et al. "The future of Blue Carbon science." *Nat Commun* 10, 3998 (2019). <https://doi.org/10.1038/s41467-019-11693-w>.

**Draft Natural and Working Lands Climate Smart Strategy
Appendices for Public Comment**

91 Ward, M. A., Hill, T. M., Souza, C., Filipczyk, T., Ricart, A. M., Merolla, S., Capece, L. R., O'Donnell, B. C., Elsmore, K., Oechel, W. C., and Beheshti, K. M. "Blue Carbon Stocks and Exchanges Along the Pacific West Coast." *Biogeosciences Discuss.* [preprint], in review, February 17, 2021. <https://doi.org/10.5194/bg-2021-27>.

92 Krause-Jensen, D., Duarte, C. "Substantial role of macroalgae in marine carbon sequestration." *Nature Geosci* 9, 737–742 (2016). <https://doi.org/10.1038/ngeo2790>.

93 Orth, Robert J., et al. "A Global Crisis for Seagrass Ecosystems." *BioScience* 56, no. 12 (December 2006): 987–96. [https://doi.org/10.1641/0006-3568\(2006\)56\[987:agcfse\]2.0.co;2](https://doi.org/10.1641/0006-3568(2006)56[987:agcfse]2.0.co;2).

94 Duarte, Carlos M., Jiaping Wu, Xi Xiao, Annette Bruhn, and Dorte Krause-Jensen. "Can Seaweed Farming Play a Role in Climate Change Mitigation and Adaptation?" *Frontiers in Marine Science* 4 (April 12, 2017). <https://doi.org/10.3389/fmars.2017.00100>; Hirsh, Heidi K., et al. "Drivers of Biogeochemical Variability in a Central California Kelp Forest: Implications for Local Amelioration of Ocean Acidification." *Journal of Geophysical Research: Oceans* 125, no. 11 (October 22, 2020). <https://doi.org/10.1029/2020jc016320>; Ricart, Aurora M., et al. "Coast-Wide Evidence of Low PH Amelioration by Seagrass Ecosystems." *Global Change Biology* 27, no. 11 (March 31, 2021): 2580–91. <https://doi.org/10.1111/gcb.15594>.

95 Orth, Robert J., et al. "Restoration of Seagrass Habitat Leads to Rapid Recovery of Coastal Ecosystem Services." *Science Advances* 6, no. 41 (October 7, 2020). <https://doi.org/10.1126/sciadv.abc6434>.

96 Duarte, Carlos M., Jiaping Wu, Xi Xiao, Annette Bruhn, and Dorte Krause-Jensen. "Can Seaweed Farming Play a Role in Climate Change Mitigation and Adaptation?" *Frontiers in Marine Science* 4 (April 12, 2017). <https://doi.org/10.3389/fmars.2017.00100>.

97 LANDFIRE: LANDFIRE Existing Vegetation Type layer. (2013 - 2021). U.S. Department of Interior, Geological Survey. [Online]. Available: https://landfire.gov/version_download.php [Accessed: February 3, 2021]. LANDFIRE: LANDFIRE Biophysical Setting layer. (2013 - 2021). U.S. Department of Interior, Geological Survey [Online]. Available: https://landfire.gov/version_download.php [Accessed: February 3, 2021].

98 Cal. Public Resources Code § 4799.09(e).

99 Nowak, David J., Eric J. Greenfield, Robert E. Hoehn, and Elizabeth Lapoint. "Carbon Storage and Sequestration by Trees in Urban and Community Areas of the United States." *Environmental Pollution* 178 (March 2013): 229–36. <https://doi.org/10.1016/j.envpol.2013.03.019>; Yesilonis, Ian D., and Richard V. Pouyat.

**Draft Natural and Working Lands Climate Smart Strategy
Appendices for Public Comment**

“Carbon Stocks in Urban Forest Remnants: Atlanta and Baltimore as Case Studies.” Carbon Sequestration in Urban Ecosystems, (2011), 103–20.
https://doi.org/10.1007/978-94-007-2366-5_5.

100 Nowak, David J., Eric J. Greenfield, Robert E. Hoehn, and Elizabeth Lapoint. “Carbon Storage and Sequestration by Trees in Urban and Community Areas of the United States.” Environmental Pollution 178 (March 2013): 229–36.
<https://doi.org/10.1016/j.envpol.2013.03.019>; Bjorkman, J., et al. “Biomass, carbon sequestration and avoided emission: assessing the role of urban trees in California.” Information Center for the Environment, University of California, Davis, (March, 2015)
https://escholarship.org/content/qt8r83z5wb/qt8r83z5wb_noSplash_fef1e0f77a080c405bad0b09f30b8659.pdf.

101 Maco, S.E., E.G. McPherson, J.R. Simpson, P.J. Peper, Q. Xiao. (U.S. Department of Agriculture, Forest Service, Center for Urban Forest Research, Pacific Southwest Research Station) City of San Francisco, California Street Tree Resource Analysis (2003).
https://www.fs.fed.us/psw/topics/urban_forestry/products/2/psw_cufr732_SanFrancisco_MBCA_web.pdf.

102 Maco, S.E., E.G. McPherson, J.R. Simpson, P.J. Peper, Q. Xiao. (U.S. Department of Agriculture, Forest Service, Center for Urban Forest Research, Pacific Southwest Research Station) City of San Francisco, California Street Tree Resource Analysis (2003).
https://www.fs.fed.us/psw/topics/urban_forestry/products/2/psw_cufr732_SanFrancisco_MBCA_web.pdf; “Planting Tree Equity and Career Pathways for Underserved Communities.” Career Pathways Initiative. American Forests, May 18, 2021.
<https://www.americanforests.org/our-work/urban-forestry/workforce-development/>.

103 LANDFIRE: LANDFIRE Existing Vegetation Type layer. (2013 - 2021). U.S. Department of Interior, Geological Survey. [Online]. Available:
https://landfire.gov/version_download.php [Accessed: February 3, 2021]. LANDFIRE: LANDFIRE Biophysical Setting layer. (2013 - 2021). U.S. Department of Interior, Geological Survey [Online]. Available: https://landfire.gov/version_download.php [Accessed: February 3, 2021].

104 Vogel, Anja, Michael Scherer-Lorenzen, and Alexandra Weigelt. “Grassland Resistance and Resilience after Drought Depends on Management Intensity and Species Richness.” PLoS ONE 7, no. 5 (May 16, 2012).
<https://doi.org/10.1371/journal.pone.0036992>.

**Draft Natural and Working Lands Climate Smart Strategy
Appendices for Public Comment**

105 Koteen, Laura E, Dennis D Baldocchi, and John Harte. "Invasion of Non-Native Grasses Causes a Drop in Soil Carbon Storage in California Grasslands."

Environmental Research Letters 6, no. 4 (October 1, 2011): 044001.

<https://doi.org/10.1088/1748-9326/6/4/044001>.

106 Silver, Whendee, Sintana Vergara, Allegra Mayer. (University of California, Berkeley). 2018. Carbon Sequestration and Greenhouse Gas Mitigation Potential of Composting and Soil Amendments on California's Rangelands. California's Fourth Climate Change Assessment, California Natural Resources Agency. Publication

number: CCCA4-CNRA2018-002. https://www.energy.ca.gov/sites/default/files/2019-11/Agriculture_CCCA4-CNRA-2018-002_ADA.pdf.

107 Sohi, S. P. "Carbon Storage with Benefits." Science 338, no. 6110 (November 22, 2012): 1034–35. <https://doi.org/10.1126/science.1225987>; Gong, Xiaomin, et al.

"Nanoscale Zerovalent Iron, Carbon Nanotubes and Biochar Facilitated the Phytoremediation of Cadmium Contaminated Sediments by Changing Cadmium Fractions, Sediments Properties and Bacterial Community Structure." Ecotoxicology and Environmental Safety 208 (January 15, 2021): 111510.

<https://doi.org/10.1016/j.ecoenv.2020.111510>.

108 Dass, Pawlok, Benjamin Z Houlton, Yingping Wang, and David Warlind.

"Grasslands May Be More Reliable Carbon Sinks than Forests in California."

Environmental Research Letters 13, no. 7 (July 10, 2018): 074027.

<https://doi.org/10.1088/1748-9326/aacb39>.

109 Vogel, Anja, Michael Scherer-Lorenzen, and Alexandra Weigelt. "Grassland Resistance and Resilience after Drought Depends on Management Intensity and Species Richness." PLoS ONE 7, no. 5 (May 16, 2012).

<https://doi.org/10.1371/journal.pone.003699>; Koteen, Laura E, Dennis D Baldocchi, and John Harte. "Invasion of Non-Native Grasses Causes a Drop in Soil Carbon Storage in California Grasslands." Environmental Research Letters 6, no. 4 (October 1, 2011): 044001. <https://doi.org/10.1088/1748-9326/6/4/044001>.

110 U.S. Department of Agriculture, Northeast Climate Hub. Managing Grazing to Improve Climate Resilience (2019).

https://www.climatehubs.usda.gov/sites/default/files/GrazingFactsheet_Feb2019_web508.pdf; Gosnell, H., S. Chamley, and P. Stanley. "Climate Change Mitigation as a Co-

Benefit of Regenerative Ranching: Insights from Australia and the United States."

Interface Focus 10 (2020). <https://doi.org/20200027>; "Grazing." Fire in California.

University of California Cooperative Extension, n.d.

<https://ucanr.edu/sites/fire/Prepare/Treatment/Grazing>.

**Draft Natural and Working Lands Climate Smart Strategy
Appendices for Public Comment**

111 LANDFIRE: LANDFIRE Existing Vegetation Type layer. (2013 - 2021). U.S. Department of Interior, Geological Survey. [Online]. Available: https://landfire.gov/version_download.php [Accessed: February 3, 2021]. LANDFIRE: LANDFIRE Biophysical Setting layer. (2013 - 2021). U.S. Department of Interior, Geological Survey [Online]. Available: https://landfire.gov/version_download.php [Accessed: February 3, 2021].

112 Schlesinger, William H., Jayne Belnap, and Giles Marion. "On Carbon Sequestration in Desert Ecosystems." *Global Change Biology* 15, no. 6 (May 4, 2009): 1488–90. <https://doi.org/10.1111/j.1365-2486.2008.01763.x>; Soper, Fiona M., Carmody K. McCalley, Kimberlee Sparks, and Jed P. Sparks. "Soil Carbon Dioxide Emissions from the Mojave Desert: Isotopic Evidence for a Carbonate Source." *Geophysical Research Letters* 44, no. 1 (January 16, 2017): 245–51. <https://doi.org/10.1002/2016gl071198>; Li, Yan, Yu-Gang Wang, R. A. Houghton, and Li-Song Tang. "Hidden Carbon Sink beneath Desert." *Geophysical Research Letters* 42, no. 14 (July 28, 2015): 5880–87. <https://doi.org/10.1002/2015gl064222>.

113 Lovich, J. E., and D. Bainbridge. "Anthropogenic Degradation of the Southern California Desert Ecosystem and Prospects for Natural Recovery and Restoration." *Environmental Management* 24, no. 3 (October 1999): 309–26. <https://doi.org/10.1007/s002679900235>.

114 Guo, Qinfeng. "Slow Recovery in Desert Perennial Vegetation Following Prolonged Human Disturbance." *Journal of Vegetation Science* 15, no. 6 (December 2004): 757–62. <https://doi.org/10.1111/j.1654-1103.2004.tb02318.x>.

115 Sigren, Jacob M., Jens Figlus, and Anna R. Armitage. "Coastal sand dunes and dune vegetation: restoration, erosion, and storm protection." *Shore & Beach* 82.4 (2014): 5-12.

116 Kueppers, L., J.K. Gilles, P. Gonzalez, T.M. Hill, E. Margulies, and T.B. Pathak. Expanding Climate Action Through Nature-Based Solutions: Advisory Panel Summary Document, June 2, 2021. <https://www.californianature.ca.gov/pages/get-involved#topical>.

117 Population projections are summaries of the California Department of Finance's publicly released E-4 projections. Counties that are split between regions have used the proportion of the population within each region by county applied to the county totals. The 2020 estimates are split based on the estimated populations at a block group level from the American Community Survey 5-year estimates based on 2014-2018 data, which was the most recent available at a Block Group as of 4/23/2021.

**Draft Natural and Working Lands Climate Smart Strategy
Appendices for Public Comment**

118 Land areas are calculated and based on a 1:24k scale county dataset released by the California Department of Forestry & Fire Protection FRAP program. The dataset has been intersected with a 4th Climate Assessment Regions dataset obtained from Cal-Adapt.org. Calculations are conducted in California Albers NAD83.

119 Grantham, Theodore (University of California, Berkeley). 2018. North Coast Summary Report, California's Fourth Climate Change Assessment. Publication number: SUM-CCC4A-2018-001. https://www.energy.ca.gov/sites/default/files/2019-11/Reg_Report-SUM-CCCA4-2018-001_NorthCoast_ADA.pdf.

120 Land areas are calculated and based on a 1:24k scale county dataset released by the California Department of Forestry & Fire Protection FRAP program. The dataset has been intersected with a 4th Climate Assessment Regions dataset obtained from Cal-Adapt.org. Calculations are conducted in California Albers NAD83.

121 Population projections are summaries of the California Department of Finance's publicly released E-4 projections. Counties that are split between regions have used the proportion of the population within each region by county applied to the county totals. The 2020 estimates are split based on the estimated populations at a block group level from the American Community Survey 5-year estimates based on 2014-2018 data, which was the most recent available at a Block Group as of 4/23/2021.

122 Ackerly, D., A. Jones, M. Stacey, B. Riordan. (University of California, Berkeley). 2018. San Francisco Bay Area Summary Report, California's Fourth Climate Change Assessment. Publication number: CCCA4-SUM-2018-005. https://www.energy.ca.gov/sites/default/files/2019-11/Reg_Report-SUM-CCCA4-2018-005_SanFranciscoBayArea_ADA.pdf.

123 Population projections are summaries of the California Department of Finance's publicly released E-4 projections. Counties that are split between regions have used the proportion of the population within each region by county applied to the county totals. The 2020 estimates are split based on the estimated populations at a block group level from the American Community Survey 5-year estimates based on 2014-2018 data, which was the most recent available at a Block Group as of 4/23/2021.

124 Land areas are calculated and based on a 1:24k scale county dataset released by the California Department of Forestry & Fire Protection FRAP program. The dataset has been intersected with a 4th Climate Assessment Regions dataset obtained from Cal-Adapt.org. Calculations are conducted in California Albers NAD83.

125 Langridge, Ruth. (University of California, Santa Cruz). 2018. Central Coast Summary Report, California's Fourth Climate Change Assessment. Publication

**Draft Natural and Working Lands Climate Smart Strategy
Appendices for Public Comment**

number: SUM-CCCA4-2018-006. https://www.energy.ca.gov/sites/default/files/2019-11/Reg_Report-SUM-CCCA4-2018-006_CentralCoast_ADA.pdf.

126 Population projections are summaries of the California Department of Finance's publicly released E-4 projections. Counties that are split between regions have used the proportion of the population within each region by county applied to the county totals. The 2020 estimates are split based on the estimated populations at a block group level from the American Community Survey 5-year estimates based on 2014-2018 data, which was the most recent available at a Block Group as of 4/23/2021.

127 Land areas are calculated and based on a 1:24k scale county dataset released by the California Department of Forestry & Fire Protection FRAP program. The dataset has been intersected with a 4th Climate Assessment Regions dataset obtained from Cal-Adapt.org. Calculations are conducted in California Albers NAD83.

128 Hall, A., N. Berg, K. Reich. (University of California, Los Angeles). 2018. Los Angeles Summary Report, California's Fourth Climate Change Assessment. Publication number: SUM-CCCA4-2018-007. https://www.energy.ca.gov/sites/default/files/2019-11/Reg%20Report-%20SUM-CCCA4-2018-007%20LosAngeles_ADA.pdf.

129 Land areas are calculated and based on a 1:24k scale county dataset released by the California Department of Forestry & Fire Protection FRAP program. The dataset has been intersected with a 4th Climate Assessment Regions dataset obtained from Cal-Adapt.org. Calculations are conducted in California Albers NAD83.

130 Population projections are summaries of the California Department of Finance's publicly released E-4 projections. Counties that are split between regions have used the proportion of the population within each region by county applied to the county totals. The 2020 estimates are split based on the estimated populations at a block group level from the American Community Survey 5-year estimates based on 2014-2018 data, which was the most recent available at a Block Group as of 4/23/2021.

131 Kalansky, J., D. Cayan, K. Barba, L. Walsh, K. Brouwer, D. Boudreau. (University of California, San Diego). 2018. San Diego Summary Report, California's Fourth Climate Change Assessment. Publication number: SUMCCCA4-2018-009. https://www.energy.ca.gov/sites/default/files/2019-11/Reg_Report-SUM-CCCA4-2018-009_SanDiego_ADA.pdf.

132 Land areas are calculated and based on a 1:24k scale county dataset released by the California Department of Forestry & Fire Protection FRAP program. The dataset has been intersected with a 4th Climate Assessment Regions dataset obtained from Cal-Adapt.org. Calculations are conducted in California Albers NAD83.

**Draft Natural and Working Lands Climate Smart Strategy
Appendices for Public Comment**

133 Population projections are summaries of the California Department of Finance's publicly released E-4 projections. Counties that are split between regions have used the proportion of the population within each region by county applied to the county totals. The 2020 estimates are split based on the estimated populations at a block group level from the American Community Survey 5-year estimates based on 2014-2018 data, which was the most recent available at a Block Group as of 4/23/2021.

134 Houlton, B., J. Lund. (University of California, Davis). 2018. Sacramento Summary Report, California's Fourth Climate Change Assessment. Publication number: SUM-CCCA4-2018-002 https://www.energy.ca.gov/sites/default/files/2019-11/Reg_Report-SUM-CCCA4-2018-002_SacramentoValley_ADA.pdf.

135 Population projections are summaries of the California Department of Finance's publicly released E-4 projections. Counties that are split between regions have used the proportion of the population within each region by county applied to the county totals. The 2020 estimates are split based on the estimated populations at a block group level from the American Community Survey 5-year estimates based on 2014-2018 data, which was the most recent available at a Block Group as of 4/23/2021.

136 Land areas are calculated and based on a 1:24k scale county dataset released by the California Department of Forestry & Fire Protection FRAP program. The dataset has been intersected with a 4th Climate Assessment Regions dataset obtained from Cal-Adapt.org. Calculations are conducted in California Albers NAD83.

137 Westerling, L., J. Medellin-Azuara, J. Viers. (University of California, Merced). 2021. San Joaquin Valley Summary Report, California's Fourth Climate Change Assessment. Publication number: SUMCCCA4-2018-003. Link forthcoming.

138 Population projections are summaries of the California Department of Finance's publicly released E-4 projections. Counties that are split between regions have used the proportion of the population within each region by county applied to the county totals. The 2020 estimates are split based on the estimated populations at a block group level from the American Community Survey 5-year estimates based on 2014-2018 data, which was the most recent available at a Block Group as of 4/23/2021.

139 Land areas are calculated and based on a 1:24k scale county dataset released by the California Department of Forestry & Fire Protection FRAP program. The dataset has been intersected with a 4th Climate Assessment Regions dataset obtained from Cal-Adapt.org. Calculations are conducted in California Albers NAD83.

140 Hopkins, Francesca. (University of California, Riverside). 2018. Inland Deserts Summary Report, California's Fourth Climate Change Assessment. Publication

**Draft Natural and Working Lands Climate Smart Strategy
Appendices for Public Comment**

number: SUM-CCCA4-2018-008. https://www.energy.ca.gov/sites/default/files/2019-11/Reg_Report-SUM-CCCA4-2018-008_InlandDeserts_ADA.pdf.

141 Land areas are calculated and based on a 1:24k scale county dataset released by the California Department of Forestry & Fire Protection FRAP program. The dataset has been intersected with a 4th Climate Assessment Regions dataset obtained from Cal-Adapt.org. Calculations are conducted in California Albers NAD83.

142 Population projections are summaries of the California Department of Finance's publicly released E-4 projections. Counties that are split between regions have used the proportion of the population within each region by county applied to the county totals. The 2020 estimates are split based on the estimated populations at a block group level from the American Community Survey 5-year estimates based on 2014-2018 data, which was the most recent available at a Block Group as of 4/23/2021.