

Natural & Working Lands Background Publications

[Opportunities for Accelerating Nature-Based Solutions: A Roadmap for Climate Progress, Thriving Nature, Equity, and Prosperity](#). Report to the National Climate Task Force. Washington, D.C. (2022)

[Oregon Global Warming Commission Natural and Working Lands Proposal](#) (2021)

[WRI Guide to Natural and Working Lands Inventory Improvements](#) (2020)

Inventory methods development

- Coastal wetland management as a contribution to the U.S. National Greenhouse Gas Inventory (Crooks et al, 2018)
- [Coastal Wetland Greenhouse Gas Inventory for the San Francisco Bay Estuary](#) (Beers et al, 2022)
- [Incorporating Coastal Blue Carbon Data and Approaches in Oregon’s First Generation Natural and Working Lands Proposal](#) (DLCD, OCMP, Pacific Northwest Blue Carbon Working Group, Silvestrum Climate Associates, Pew Charitable Trusts)

Blue Carbon resources

- [Evidence for the multiple benefits of wetland conservation in North America: Carbon, biodiversity, and beyond](#) (Conlisk et al. 2023)
- [Oregon's blue carbon ecosystems: State of the Science](#) (Lyle et al. 2022)
- [Total ecosystem carbon stocks at the marine-terrestrial interface: Blue Carbon of the Pacific Northwest Coast, United States](#) (Kauffman et al. 2020)
- [Controls on sediment accretion and blue carbon burial in tidal saline wetlands: Insights from the Oregon coast, USA](#) (Peck et al. 2020)
- [Comparing historical losses of forested, scrub-shrub, and emergent tidal wetlands on the Oregon coast, USA: A paradigm shift for estuary restoration and conservation](#) (Brophy 2019; study quantifies and maps current and historical extent for emergent, shrub and forested tidal wetlands on the Oregon coast, and calculates past losses for each vegetation class. See associated geospatial data below.)
 - Geospatial data for Brophy 2019: “Comparing historical losses of forested, scrub-shrub, and emergent tidal wetlands on the Oregon coast, USA: A paradigm shift for estuary restoration and conservation”: https://drive.google.com/open?id=1Kfi7vf76XWd_N7IzYwUwomOuVp5KQxbh
 - Web app for viewing the geospatial data for Brophy 2019, “Comparing historical losses of forested, scrub-shrub, and emergent tidal wetlands on the Oregon coast, USA: A paradigm shift for estuary restoration and conservation” (no need for GIS app -- works best on computer, not phone): <https://psmfc.maps.arcgis.com/apps/opdsdashboard/index.html#/d9715ad83c3048e386573b4a74bd0ee5>
 - Spatial dataset for Brophy et al. 2019: PMEP West Coast estuary extents (including current and historical): <https://www.pacificfishhabitat.org/data/estuary-extents>
 - Spatial dataset for Brophy et al. 2019: PMEP CMECS Biotic Component classification for PMEP Estuary extents (including current and historical): <https://www.pacificfishhabitat.org/data/estuarine-biotic-habitat>
- [Modeling sea level rise impacts to Oregon's tidal wetlands: Maps and prioritization tools to help plan for habitat conservation into the future](#) (Brophy and Ewald 2017; study maps potential tidal wetland gains/losses for the Oregon coast under 6 SLR scenarios, useful for future change analysis)
 - Brophy and Ewald, 2017: Spatial data (scroll to bottom of page for shapefiles, 1 per SLR scenario): <https://ir.library.oregonstate.edu/concern/datasets/zw12zb20h>
- [A decade of tidal wetland development at the Ni-les’tun restoration project on the southern Oregon coast](#) (Janousek et al. 2022)

- [Early post-restoration recovery of tidal wetland structure and function at the Southern Flow Corridor project, Tillamook Bay, Oregon](#) (Janousek et al. 2021)
- [Socio-Economic Impacts of the Southern Flow Corridor Restoration Project](#) (Shaw et al, 2021)
- [Baseline monitoring at Wallooskee-Youngs restoration site, 2015, Part 2: Blue carbon, ecosystem drivers and biotic responses](#) (Brophy et al. 2018)
- [Insights into estuary habitat loss in the western United States using a new method for mapping maximum extent of tidal wetlands](#) (Brophy et al, 2019)
- [Leveraging Wetlands for a Better Climate Future](#) (San Francisco Estuary Institute, 2022)
- Janousek, C., B. Drucker, C. Cornu, J. Apple, and PNW Blue Carbon Working Group. 2022. Northeast Pacific Blue Carbon Database. Pacific Northwest Blue Carbon Working Group.
- [Coastal Carbon Research Coordination Network \(CCRN\) Blue Carbon Inventory](#) (Smithsonian Environmental Research Center, 2021)
- [Blue Carbon-based Natural Climate Solutions, Priority Maps for the U.S., 2006-2011](#)
- [Blue Carbon Storage Capacity of Temperate Eelgrass \(*Zostera marina*\) Meadows](#) (Rohr et al, 2018)
- [The Promise of Blue Carbon Climate Solutions: Where the Science Supports Ocean-Climate Policy](#) (Christianson et al, 2022)
- [Recommendations for Reducing Wetland Loss in Coastal Watersheds of the United States](#) (Interagency Coastal Wetlands Workgroup 2022)
- Coastal 'Blue Carbon': An Important Tool for Combating Climate Change (The Pew Charitable Trusts)

Fire

- [Severe fire weather and intensive forest management increase fire severity in a multi-ownership landscape](#) (Zald and Dunn 2018)
- [Contemporary patterns of fire extent and severity in forests of the Pacific Northwest, USA](#) (Reilly et al. 2017)
- [Extreme winds alter influence of fuels and topography on megafire burn severity in seasonal temperate rainforests under record fuel aridity](#) (Evers et al. 2022)
- [Higher incidence of high-severity fire in and near industrially managed forests](#) (Levine et al. 2022)
- [A New Vision for Wildfire Planning: A Report on Land Use and Wildfires](#) (Fox, 1000 Friends of Oregon, 2019)

Forests

- Investing in #Forests4Climate (American Forests 2022)
- [Searching for Climate-Smarter Forestry: Accelerating the Transition](#) (Hayes and Moberg 2022)
- <https://newhampshirebulletin.com/2023/02/22/forests-are-much-more-than-carbon-banks/>
- <https://www.wfpa.org/news-resources/news/release-working-forests-vital-to-mitigating-climate-change/>
- Video from ODF - <https://www.youtube.com/watch?v=3Fk2V6nWLhc&list=PLhtLP-50RDaSEzTD6Vh6PZcYV2OpVkyI5&index=3>

Agriculture

- [Combating climate change on U.S. cropland: Affirming the technical capacity of cover cropping and no-till to sequester carbon and reduce greenhouse gas emissions](#) (American Farmland Trust 2022)
- [Oregon farmers and farmlands are part of the climate solution](#) (American Farmland Trust 2022)
- [Lay of the Land & Levers for Change: Farming for Climate Resilience in Oregon 2021 and Beyond](#) (Rood 2021)
- [Combating Climate Change on US Cropland: Affirming the technical capacity of cover cropping and no-till to sequester carbon and reduce greenhouse gas emissions](#) (Bruner et al. 2021)
 - A must read 2021 summary of the science to date, from soil science to the social science of practice adoption, very accessible for all readers.
- [Climate Mitigation Potential of Regenerative Agriculture is Significant!](#) (Paustian et al. 2020)
 - The latest from leading scientists in 2020.
- Natural climate solutions for the United States (Fargione et al. 2018)

- A solid 2018 study quantifying soil carbon sequestration and reduced greenhouse gas potential of natural climate solutions, including agricultural solutions, in the US. Also recognizes the additional benefits of these solutions for water use efficiency, flood control, soil health, wildlife habitat and climate resilience.
- [Oregon Forests and Farms Can Fight Climate Change](#) (The Nature Conservancy and Portland State University 2020)
- [Carbon Sequestration Potential on Agricultural Lands: A Review of Current Science and Available Practices](#) (Kane 2015)
 - 2015 review of current science and available practices. Includes a good Soil Carbon 101 section plus a deeper dive into the impacts of implementing different practices.
- [A Whole Farm Planning Tool: Cultivating Climate Resilience on Farms and Ranches](#) (Lengnick 2018)
- [Farms Under Threat: The State of the States](#) (A comparison of the efficacy of farmland protection tools by state) (Freedgood et al. 2020)
- [USFRA-Transformative-Investment-Report.pdf \(usfarmersandranchers.org\)](#) This report examines how innovations in finance and technology can be applied to overcome barriers to adoption of climate-smart agriculture practices in the U.S. at scale.
- [Carbon sequestration potential in cropland soils in the inland Pacific Northwest: Knowledge and gaps](#)
- Climate Smart Agriculture Sourcebook | Food and Agriculture Organization of the United Nations (fao.org)
- [Designing Working Lands Incentives for Oregon Agriculture](#) - possible policy structures for granting process, eligible strategies and practices, and program administration. Prepared by staff at ODA and OWEB. 12/12/2018
- [Conservation Innovation Grants program – Congressional Report](#) - overview of the program over the course of its 17+ years, showing the value in incentive-based farming practices.
- [CDFA - Office of Environmental Farming & Innovation \(OEFI\) \(ca.gov\)](#)
Website with information on CCDFA's Office of Environmental Farming and Innovation, including their work to fund projects on farms through grants such as Healthy Soils Program, Alternative Manure Management, Dairy Digesters, State Water and Energy Efficiency Programs.

Tools for GHG calculations

- USDA [COMET-Planner](#): An evaluation tool that provides generalized estimates of the GHG impacts of conservation practices. Generally simpler to use than COMET-Farm and often used for grant applications (USDA and CDFA).
- USDA [COMET-Farm](#): A whole farm and ranch carbon and greenhouse gas accounting system. Supporting documentation, such as: [Quantifying Greenhouse Gas Fluxes in Agriculture and Forestry: Methods for Entity-Scale Inventory](#)
- [CCI Quantification, Benefits, and Reporting Materials | California Air Resources Board](#)
California Air Resources Board's list of practices, methodology and calculators for GHG reductions on farmlands (see Alternative Manure Management Practices, Dairy Digesters, Healthy Soils).
- USDA Northwest Climate Hub Region website:
 - [Climate Change Impacts in the Northwest | USDA Climate Hubs](#) General information about observed climate changes in the Pacific Northwest.
 - [Regional Actions-Resources search | USDA Climate Hubs](#) Links to multiple Climate Management and Adaptation Actions for Agriculture, Ranching and Forest managers.

Land Use

[Death by 1000 Cuts: The Erosion of Oregon's Exclusive Farm Use Zone](#) (Shackelford, 1000 Friends of Oregon, 2020)