Jonathan M. Wachter

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Education

2011 – 2017 | **PhD in Soil Science**, *Department of Crop and Soil Sciences*
Washington State University, Pullman WA

2006 – 2010 | **BA in Biology**, *Department of Biological Sciences*
Dartmouth College, Hanover NH

Work Experience

2024 – present | California Natural Resources Agency, Sacramento CA
Senior Environmental Scientist
Working to support State climate policies and strategic projects, including California's Nature-Based Solutions Climate Targets and Climate Smart Lands Strategy. Interagency collaboration bridging land management implementation with program development, data collection, and modeling of natural and working lands statewide.

2021 – 2024 | Carbon Cycle Institute, Petaluma CA
Lead Soil Scientist
Advancing agricultural climate solutions through applied research, policy, finance, and education. Integrating agricultural solutions into local, regional and statewide climate strategies. Developing strategies for overcoming barriers to scaling regenerative agriculture in deep collaboration with other non-profit organizations and philanthropic partners. Leading the development of regionally based innovative finance models to support regenerative agriculture.

2020 – 2024 | Center for Regenerative Solutions, National
Consultant and Strategic Advisory Committee Member
Working in collaboration with the Trust for Public Lands, Colorado State University and others to develop a novel framework for urban carbon sequestration and natural asset management.

2018 – 2021 | Marin Agricultural Land Trust, Point Reyes Station CA
Conservation Planner
Developed a rangeland soil health program and managed the implementation of conservation practices to benefit soil and water quality, climate change mitigation, and climate resilience across Marin County. Developed a novel process for directing conservation and stewardship funding based on organization-wide strategic planning. Worked with the Marin Carbon Project on strategies to scale and prioritize conservation and climate change mitigation projects.

2012 – 2017 | Washington State University Department of Crop and Soil Sciences, Pullman WA
Research Assistant, Teaching Assistant & PhD Candidate
Designed and carried out long-term interdisciplinary agricultural field research. Managed 5 acres of field research plots and worked closely with the local farming community on research prioritization, education and outreach. Developed economic models for alternative crop and livestock farming systems in the region. Monitored soil carbon and nitrogen dynamics and greenhouse gas emissions, productivity, and economic performance of farming systems. Managed 3 full-time research technicians; ran and maintained analytical instruments.

2012 – 2015 | AgResearch, New Zealand & CSIRO, Australia
NSF-IGERT Policy Research Fellow
Conducted field and policy research in New Zealand and Australia to evaluate regional policies aimed at fertilizer use and climate change mitigation.

2011 – 2012 | Partners Program at the College Preparatory School, Oakland CA
Instructor
Taught field ecology courses to underserved 7th and 8th graders. Designed an interactive curriculum using urban gardening to teach math, biology, and english classes.

2009 – 2010 | Vogelsang High Sierra Camp, Yosemite National Park CA
Assistant Manager
Managed a wilderness lodge in the remote Yosemite backcountry. Duties included personnel management, bookkeeping, and inventory management.

2009 – 2010 | Dartmouth College Department of Environmental Studies, Hanover NH
Professor's Assistant in the creation of a Sustainability Studies Minor
Spearheaded the creation of a novel interdisciplinary undergraduate minor in sustainability studies with Dr. Anne Kapuscinski that launched in September 2010.

2008 – 2010 | Dartmouth College Organic Farm, Hanover NH
Farm Manager
Managed the operations of the college organic farm, including overseeing field operations, materials sources, and planting schedules. Trained volunteers and taught field classes.

Publications

Davis, A.D., L. Carpenter-Boggs, K.L. Smith, **J.M. Wachter**, G. Heineck, D.R. Huggins, and J.P. Reganold. 2025. Soil health and ecological resilience of no-till, organic, and mixed-crop livestock systems in eastern Washington State. *Agriculture, Ecosystems & Environment* **388**: 109639.

Wachter, **J.M.**, L.A. Carpenter-Boggs, D.R. Huggins, and J.P. Reganold. 2019. Productivity, economic performance, and soil quality of conventional, mixed, and organic dryland farming systems in eastern Washington State. *Agriculture, Ecosystems & Environment* **286**: 106665.

Reganold, J.P., and **J.M. Wachter**. 2016. Organic agriculture in the 21st century. *Nature Plants* **2**: e15221.

Wachter, **J.M.**, and J.P. Reganold. 2014. Organic agricultural production: plants. In N.K. van Alfen (ed.) *Encyclopedia of Agriculture and Food Systems, Vol. 4*. Elsevier, San Diego, CA. pp. 265–286.

Proficiencies

Language	Spanish, French
Communication	Written & oral communication for diverse audiences, education & curriculum design, faciliation, collaborative decision-making
Computer	R, GIS, LATEX, graphic design
Research	Experimental design, data management & statistical analysis, policy analysis, agricultural economics, literature review, biogeochemical modeling
Laboratory	QA/QC, gas chromatography, ion chromatography, elemental analysis, segmented flow analysis, enzyme assays, analytical instrument operation & maintenance
Field	Greenhouse gas sampling, soil sampling & monitoring, lysimeters & leachate collection, field equipment design & repair, cropping & grazing systems management