

# Ruth Langridge

Work: Merrill Faculty Services

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University of California, Santa Cruz, 95064

## Appointments

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2018 -	Researcher, University of California, Santa Cruz
2013 - 2018	Associate Researcher, University of California, Santa Cruz
2005 - 2013	Assistant Researcher: Department of Politics, University of California, Santa Cruz
2011 -	Continuing Lecturer: Legal Studies, Department of Politics, UC Santa Cruz
2007 - 2009	Interim Director: Legal Studies, Department of Politics, UC, Santa Cruz
2005 - 2010	Lecturer: Legal Studies, Department of Politics and Environmental Studies, UC Santa Cruz
2007	Research Fellow: Department of Environmental Science, Policy and Management, UC, Berkeley
2003 - 2005	Faculty Fellow: Legal Studies, UC Santa Cruz

## Professional Preparation

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University of California, Berkeley	Berkeley, CA	Environmental Policy and Management	Ph.D.
Oregon State University	Corvallis, OR	College of Forestry	MS.
Harvard University	Boston, MA	Chemistry, Science Education	MAT
Antioch College	Yellow Springs, Ohio	Biology	MS

## Publications

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Langridge, Ruth and Nathan D. Van Schmidt, 2020, Groundwater and Drought Resilience in the SGMA Era, *Society and Natural Resources Journal*, <https://doi.org/10.1080/08941920.2020.1801923>

Wilson, Tamara Sue, Nathan D Van Schmidt, Ruth Langridge, 2020, Land-Use Change and Future Water Demand in California's Central Coast, *Land Systems and Global Change*. <https://www.mdpi.com/2073-445X/9/9/322/pdf>

Langridge, R., Fencl, A., 2020. Implications of Climate Change to Groundwater. In: Goldstein, M.I., DellaSala, D.A. (Eds.), *Encyclopedia of the World's Biomes*, vol. 4. Elsevier, pp. 438–453. <https://doi.org/10.1016/B978-0-12-409548-9.12021-4>. <https://www.sciencedirect.com/science/article/pii/B9780124095489120214>

Langridge, Ruth, Christopher Ansell. 2018. Comparative Analysis of Institutions to Govern the Groundwater Commons in California, *Water Alternatives*, Vol. 11, Issue 3, pp.375-404 <http://www.water-alternatives.org/index.php/alldoc/articles/vol11/v11issue3/450-a11-3-3/file>

Langridge, Ruth. 2018. Central Coast Summary Report. California's Fourth Climate Change Assessment. Publication number: SUM-CCCA4-2018-006. <http://www.climateassessment.ca.gov/regions/>

- Langridge, Ruth, S. Sepaniak, A. Fencl, L. Esteli Mendez Barrientos. 2018. Management of Groundwater and Drought Under Climate Change. Paper for California's Fourth Climate Change Assessment. [http://www.climateassessment.ca.gov/techreports/docs/20180827-Water\\_CCCA4-EXT-2018-006.pdf](http://www.climateassessment.ca.gov/techreports/docs/20180827-Water_CCCA4-EXT-2018-006.pdf)
- Langridge, Ruth, Amanda Fencl and Linda Esteli Mendez Barrientos. 2018. Ensuring Groundwater Security under Drought and Climate Change. NSF Policy Brief
- Langridge, Ruth and Bruce Daniels. 2017. Accounting for Climate Change and Drought In Implementing Sustainable Groundwater Management, *Water Resources Management* 31: 3287. <https://doi.org/10.1007/s11269-017-1607-8>
- Rudestam, Kirsten. 2017. Ruth Langridge and Abigail Brown, "Exploring "Deep Roots:" Politics of Place and Groundwater Management Practices in the Pajaro Valley California, *Society and Natural Resources*, Vol. 31, Iss. 3, 2018, <https://www.tandfonline-com.oca.ucsc.edu/doi/full/10.1080/08941920.2017.1413693>
- Langridge, Ruth, S. Sepaniak and E. Conrad. 2016. An Evaluation of California's Special Act Groundwater Districts, State Water Resources Control Board Report, <https://escholarship.org/uc/item/3cr8k66v>
- Langridge, Ruth, A. Brown, K. Rudestam and Esther Conrad. 2016. An Evaluation of California's Adjudicated Groundwater Basins, State Water Resources Control Board Report [http://www.waterboards.ca.gov/water\\_issues/programs/gmp/docs/resources/swrcb\\_012816.pdf](http://www.waterboards.ca.gov/water_issues/programs/gmp/docs/resources/swrcb_012816.pdf)
- Brown, Abigail, R. Langridge and K. Rudestam. 2016. "Coming to the Table: A Critical Analysis of Collaborative Governance in Groundwater Decision-making in Coastal California," *Journal of Environmental Planning and Management*. <http://www.tandfonline.com/doi/full/10.1080/09640568.2015.1130690>.
- Rudestam, Kirsten, R. Langridge and A. Brown. 2015. "The Commons as a dynamic variable in understanding strategic alliances of scale: a groundwater case study in Pajaro Valley, California," *Environmental Science and Policy*, pp. 33-40, DOI 10.1016/j.envsci.2015.05.003
- DWR Climate Change Technical Advisory Committee. 2015. "Climate Change Technical Advisory Group Perspectives and Guidance for Climate Change Analysis." [http://www.water.ca.gov/climatechange/docs/2015/Perspectives\\_Guidance\\_Climate\\_Change\\_Analysis.pdf](http://www.water.ca.gov/climatechange/docs/2015/Perspectives_Guidance_Climate_Change_Analysis.pdf)
- Lund, Jay, T. Harter, R. Gailey, G. Fogg, R. Frank, H. Dahlke, T. Ginn, S. Solis, T. Young, A. Fisher, R. Langridge, J. Viers, T. Harmon, P. Holden, A. Keller, M. Kiparsky, T. Greene, S. Mehl, J. Gurdak, S. Gorelick, R. Knight. 2015. "Creating effective groundwater sustainability plans," <http://californiawaterblog.com>
- Rudestam, Kirsten and Ruth Langridge. 2014. "Sustainable Yield in Groundwater Management: Bridging Science and Mainstream Vernacular," *Ground Water* DOI: 10.1111/gwat.12160
- Fisher, A., G. Fogg, J. Viers, J. Lund, R. Langridge, P. Holder. 2013. "Groundwater and Climate Change in California, GroundWaterBlog, <http://californiawaterblog.com/2013/10/09/groundwater-and-climate-change-in-california/>
- Langridge, Ruth, A. Fisher, A. Racz, B. Daniels, K. Rudestam, and B. Hihara. 2012. Climate Change and Water Supply Security: Reconfiguring Groundwater Management to Reduce

- Drought Vulnerability. California Energy Commission. CEC-500-2012-017.  
<http://www.energy.ca.gov/2012publications/CEC-500-2012-017/CEC-500-2012-017.pdf>
- Langridge, Ruth. 2012. "Drought and Groundwater: Legal Hurdles to Establishing Groundwater Drought Reserves in California" *Environs: Environmental Law and Policy Journal*, Vol.36:1  
[environs.law.ucdavis.edu/issues/36/1/Langridge.pdf](http://environs.law.ucdavis.edu/issues/36/1/Langridge.pdf)
- Moser, S., J. Ekstrom and R. Langridge. 2011. Barriers to Adaptation. In Pierce, D. W., Ed., 2011, CA climate extremes workshop report. Scripps Institution of Oceanography: La Jolla, CA  
[http://sio.ucsd.edu/extreme\\_climate/CA\\_climate\\_extremes\\_report\\_SIO\\_Dec2011.pdf](http://sio.ucsd.edu/extreme_climate/CA_climate_extremes_report_SIO_Dec2011.pdf)
- Langridge, Ruth. 2011. "When Do Challengers Succeed? Non-government Actors, Administrative Agencies and Legal Change: Shifting Rules for Oregon's Private Forestlands," *American Bar Foundation, J. of Law and Social Inquiry*. Vol. 36 #3,  
<http://onlinelibrary.wiley.com/doi/10.1111/j.1747-4469.2011.01246.x/full>
- Langridge, Ruth. 2010. "Global Institutions and Water Governance," invited chapter in A HISTORY OF WATER SERIES 2, VOLUME 3: WATER, GEOPOLITICS AND THE NEW WORLD ORDER London/NY:IB Tauris
- Langridge, Ruth. 2009. "Confronting Drought: Water supply planning and the establishment of a strategic groundwater reserve." *University of Denver Water Law Review*, Vol.12:2
- Langridge, Ruth. 2008. "The Right to Habitat Protection" *Public Land and Resources Law Review*, Vol. 29:42-62
- Langridge, Ruth. 2008. "Developing global institutions for governing water" Book Review, Ken Conca, GOVERNING WATER: CONTENTIOUS TRANSNATIONAL POLITICS AND GLOBAL INSTITUTION BUILDING, *Journal of International Affairs* 61.2 Columbia University .Spring-Summer. and ENCYCLOPEDIA BRITANNICA, <http://www.britannica.com>
- Langridge, Ruth, J. Christian-Smith, K. Lohse. 2006. "Access and Resilience: Analyzing the Construction of Social Resilience to the Threat of Water Scarcity," *Ecology and Society*, 11 .2.: 18
- Langridge, Ruth. 2002. "Shifting Legal Regimes and the Allocation of Water Between Two Northern California Watersheds, *Natural Resources Law Journal*, 42, 238 – 330, 2002
- Woodward, George, Jeff Romm, and Ruth Langridge. 2001. "Policy impacts of the Klamath decision," in WATER ALLOCATION IN THE KLAMATH BASIN. Joint publication of Oregon State University and the University of California
- Gottlieb, Robert and Ruth Langridge, 2001, "Does The Water Story Ever End?" in Ted Simon's, THE RIVER STOPS HERE, University of California Press: Berkeley, CA

### **Selected Presentations**

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- Langridge, Ruth. 2018. Highlights from California's Central Coast Regional Report for California's 4<sup>th</sup> Climate Change Assessment. San Luis Obispo-Santa Cruz CA
- Langridge, Ruth. 2018. Highlights from California's Central Coast Regional Report for California's 4<sup>th</sup> Climate Change Assessment. California Adaptation Forum. Sacramento CA

- Langridge, Ruth. 2017. "Managing Groundwater in California: Evaluating Special Act Districts and Court Adjudications," Groundwater Resources Association Law Conference, Sacramento CA
- Langridge, Ruth. 2017. "Managing Groundwater to Reduce Vulnerability to Drought," Groundwater Resources Association Annual Conference, Sacramento CA
- Langridge, Ruth. 2017. "Institutional Approaches to Manage Groundwater in California: Evaluating Special Act Districts and Court Adjudications," Invited Speaker, UC Davis Hydrology Seminar Series, Davis, CA
- Langridge, Ruth. 2017. Organizing committee and oral presentation, "Recipes for Success" conference, Davis CA, highlighting "successful" water management in the state;
- Langridge, Ruth. 2016. Oral presentation, Groundwater Resources Association 25th annual meeting and conference, Groundwater Supply, Quality and Sustainability: The Challenges Ahead, in Concord, CA;
- Langridge, Ruth. 2016. "Adjudicated Basins and Water Transfers," Closing Keynote Speaker for American Groundwater Trust and Groundwater Resources Association Conference, Water markets and California water solutions, Sacramento, CA
- Langridge, Ruth. 2016. "Managing California's Adjudicated Groundwater Basins," Invited Speaker, UC Santa Barbara, CA and Stanford University, CA
- Langridge, Ruth. 2015. "California's Adjudicated Groundwater Basins: History, Current Conditions, Potential Reforms," oral presentation, American Geophysical Union .AGU. Conference, San Francisco
- John R Gyakum, B. N Austin, D. C Curtis, M. Anderson, H. Alpert, S. Young, A. Herson, A. Schwartz, ML Kavvas, *Ruth Langridge*, E. Lynn, J.e Anderson, K. T Redmond, D. R Cayan<sup>1</sup>, M. D Dettinger, and M. Correa .2015. "Producing Scientific and Strategic Guidance for California's Department of Water Resources: The Climate Change Technical Advisory Group," poster presentation, American Geophysical Union .AGU. conference, San Francisco [http://www.water.ca.gov/climatechange/docs/2015/CCTAG\\_AGU2015\\_Poster.pdf](http://www.water.ca.gov/climatechange/docs/2015/CCTAG_AGU2015_Poster.pdf)
- Langridge, Ruth. 2014. "Drought, Climate Science and Water Policy," invited panelist, Bay Delta Science Conference, Sacramento CA
- Langridge, Ruth. 2014. "Accounting for Climate Change and Drought in Sustainable Groundwater Management," Groundwater Resources Association conference
- Langridge, Ruth. 2014. U. C. Drought Summit, Invited Speaker, Sacramento, California
- Langridge, Ruth. 2014. "Groundwater and the Interconnected Climate-Water-Social System" Invited Opening Keynote Speaker for the University of California, Davis, Groundwater Symposium
- Langridge, Ruth. 2013. "Climate Change and Water Supply Security: Managing Groundwater to Increase Drought Resilience," NOAA Webinar Series: Climate Information for Managing Risks In Water Resources
- Langridge, Ruth. 2013. "Groundwater and Climate Change" Invited Speaker, SWRCB Water Quality Coordinating Committee, Sacramento, California

- Langridge, Ruth. 2013. "Governing Groundwater" Invited Speaker, California State Board of Food and Agriculture, Sacramento, California
- Langridge, Ruth. 2013. "Climate Change and Water Supply Security: Managing Groundwater to Increase Drought Resilience" California Department of Water Resources Climate Change Technical Advisory Committee, Sacramento, California
- Langridge, Ruth. 2012. "Climate Change and Water Supply Security: Managing Groundwater to Increase Drought Resilience," Association for Environmental Studies and Sciences Annual Conference, Santa Clara University, Santa Clara, California, Panel Chair and Presenter
- Langridge, Ruth. 2011. "Legal hurdles to developing local groundwater drought reserves." Groundwater Resources Association, Sacramento California, Presenter
- Langridge, Ruth. 2010. "Climate Change and Sustainable Groundwater Management" Groundwater Resources Association International Conference, 2010, Burlingame, California, Presenter
- Langridge, Ruth. 2010. "Climate Change and Water Supply Security" Fall meeting, American Geophysical Union, San Francisco, California, Presenter

### **Selected Grants, Awards and Honors**

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- Strategic Growth Council Grant. Principal Investigator. 2020. Local Development Under Climate Change: Collaborative evaluation of trade-offs between carbon emissions, water sustainability, and affordable housing for communities in California's Central Coast
- NSF EAGER Research Grant. 2019. Comparative Analysis of Institutions to Govern the Groundwater Commons. Co-PI Christopher Ansell, UC Berkeley
- Strategic Growth Council Grant. Principal Investigator. 2018. Integrating Land Use and Climate Change on California's Central Coast: Impacts and Adaptations for Local Communities. Co-PIs Tamara Wilson and Benjamin Sleeter. USGS, Mark Snyder, UCSC.
- University of California, Certificate of Excellence. 2018. Awarded by UC Water for serving the State of California through an in-depth investigation of adjudicated groundwater basins and special act groundwater districts
- NSF Research Grant, Principal Investigator. 2017. Science Policy Research Report: "A Synthesis of Available Information and Analysis of Knowledge Gaps to Advance Groundwater Security Under Drought"
- EPA Climate Leadership Award. 2016. Presented to the California Department of Water Resources singling out the work of the Climate Change Technical Advisory Committee  
<https://www.epa.gov/climateleadership/2016-climate-leadership-award-winners#California%20Department%20of%20Resources>
- Gordts, Eline. 2016. Highlighted in Water Deeply, an on-line news magazine, as one of seven experts to watch on California's groundwater.  
<https://www.newsdeeply.com/water/community/2016/07/21/seven-experts-to-watch-on-californias-groundwater>
- U.C. Water Security and Sustainability Research Initiative Grant: Principal Investigator. 2015. "An Evaluation of California's Adjudicated Groundwater Basins"

State Water Resources Control Board Grant: Principal Investigator. 5/1/15-10/1/15. Two Reports: “An Evaluation of California’s Adjudicated Groundwater Basins” and “An Evaluation of California’s Special Act Districts.”

Haynes Foundation Grant: Principal Investigator. 5/1/15 – 4/30/16. “Southern California's Groundwater Adjudicated Basins.”

California Department of Water Resources, Climate Science Award, 2014, Presented to members of the DWR Climate Change Technical Advisory Committee

National Oceanic and Atmospheric Administration (NOAA) Grant. Principal Investigator. 9/1/2013 – 8/31/2015. “Climate Change and Water Supply Security”; Co-PIs are Ben Crow, Earth and Marine Sciences, UCSC, Nigel Quinn, LBL, UC Berkeley.

National Oceanic and Atmospheric Administration (NOAA) Grant. Principal Investigator. 2010 – 2012. “Reconfiguring groundwater management to reduce vulnerability to extreme drought events,” Co-PI is Professor Andrew Fisher in Earth and Marine Sciences, UCSC.

CA Energy Commission Grant. Principal Investigator. 2010 – 2012.. “Climate Change and Water Supply Security” Co-PI - Professor Andrew Fisher in Earth and Marine Sciences, UCSC.

UC Center for Water Resources, Research Grant. Co-Investigator. 2007-2009. University of California, Santa Cruz, “Securing Access to Water: Institutional Strategies for Coping with Drought and Water Scarcity” Ruth Langridge, Researcher with Ronnie Lipschutz – PI.

University of California, Berkeley. 2003. Outstanding Graduate Student Instructor Award

University of California, Berkeley. 2002-2003. Baker-Bidwell Research Fellowship

## **Academic Activities**

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Consultant, Arizona State University. 2017. Drought and Water Sustainability

Governor’s Office of Research and Planning. 2013. Groundwater and Climate Change Academic Summit

California Department of Water Resources, Climate Change Technical Advisory Committee member 2012-2015

Interim Director, U.C. Santa Cruz Legal Studies Program. 2007 – 2009. Responsible for student advising, curriculum development, lecture series and student forums

Journal Reviewer: *Ecology and Society*, *Ecological Complexity*, *Society and Natural Resources*, *Sustainability Science*, *Routledge: UK*, *California Agricultural Journal*, *Policy Studies Journal*, *Journal of Rural Studies*, *Environmental Politics*, *Jurimetrics*

Grant Reviewer:

USC Sea Grant. 2015. “Integrating Information From Climate Scientists and Resource Managers”; NERC British Geological Survey. 2013. “Improving decision-making to mitigate the impacts of droughts: characterizing and simulating uncertainty, interactions and non-linearities (CASINO)

## **Media Citations**

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- Matt Weiser, November 17, 2016, 'Sustainable' Groundwater? It's Not a Universal Standard in California, Water Deeply,  
<https://www.newsdeeply.com/water/articles/2016/11/17/sustainable-groundwater-its-not-a-universal-standard-in-california>
- Eline Gordts, July 21, 2016, Seven Experts to Watch on California's Groundwater, Water Deeply,  
<https://www.newsdeeply.com/water/community/2016/07/21/seven-experts-to-watch-on-californias-groundwater>
- Guy Lasnier, February, 2016, UC Santa Cruz researchers evaluate groundwater supply and management: Study of adjudicated groundwater basins shows less emphasis on sustainability, more on conflict resolution, <http://news.ucsc.edu/2016/02/groundwater-study.html>
- Ivan Semeniuk, April 4, 2015, "From Bad to Worse," Toronto Globe and Mail  
<http://www.theglobeandmail.com/news/world/california-goes-from-bad-to-worse/article23778299/>
- Gary Pitzer, "Overdrawn at the Bank: Managing California's Groundwater." Jan/Feb 2014, Western Water
- Dan White, "Dry, dry again: UCSC researchers are confronting the challenges of consecutive dry years that have left California in the midst of a potential water crisis," 2014, UC Santa Cruz Review, <http://news.ucsc.edu/2014/04/rev-spring-14-water.html>
- Pamela Martineau, "State Food and Ag Board Examines California's Groundwater Challenges," 2014, Groundwater All Water News
- Alec Rosenberg, "UC drought summit dives deep in state Capitol," 4/28/ 2014, UC Newsroom
- Elizabeth Case, "Drought summit examines California's water crisis," 4/25/2014, Davis Enterprise
- Maven's Minutes, "UC Drought Summit: State policy for future droughts," 2014,  
<http://mavensnotebook.com/2014/05/22/uc-drought-summit-state-policy-for-future-droughts/>
- Families Protecting the Valley, 2012, 'Groundwater Reserves Answer to Extreme Droughts'  
<http://familiesprotectingthevalley.com/topstory.php?ax=v&n=99&id=99&nid=5189>
- New Report: Groundwater Reserves Answer To Extreme Droughts. Tulare Basin Watershed Initiative. August 9, 2012. Families Protecting the Valley

## Teaching

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University of California Santa Cruz

*California Water and the Law,  
 Property and the Law,  
 Global Environmental Politics,*

*Environmental Law and Policy,  
 Wildlife, Wilderness and the Law,  
 Senior Capstone Seminar*

Graduate Student Instructor, University of California, Berkeley

*Introduction to Environmental Studies, Natural Resource Policy Analysis,  
 Environmental Policy, Administration, and Law, Californians and Water*

Guest classes: UC Berkeley and UC Santa Cruz

## **Mentoring**

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### *Postdoctoral Scholar*

2019-Nathan Van Schmidt

### *Graduate Students*

2015-18 - Stephen Sepaniak - Dissertation Committee and Graduate Student Researcher - Advisor

2017-18 - Linda Esteli Mendez Barrientos - Graduate Student Researcher - Advisor

2017-18 - Amanda Fencel - Graduate Student Researcher - Advisor

2015-16 - Abigail Brown - Graduate Student Researcher - Advisor

2012-16 Kristen Rudestam - Graduate Student Researcher - Advisor

2015-16 Esther Conrad - Graduate Student Researcher - Advisor

2012-13 - Peter Tobin - Graduate Student Researcher - Advisor

2012-14 - Bruce Daniels - Graduate Student Researcher - Advisor

2012-14 - Andrew Racz - Graduate Student Researcher - Advisor

### *Undergraduate Students*

2010 - Susan Van Loon - Received a Dean's and Chancellor's Award

2013 - Allison Bach - Received a Dean's Undergraduate Award

2012-15 - Kimberly Schneider - Intern Advisor and work on a research project

2011-12 - Blake Hihara - Undergraduate work on a research project