Rocky Mountain Research Station 240 West Prospect Fort Collins, CO 80526 Leslie.Sanchez@usda.gov Website

EMPLOYMENT & AFFILIATIONS

Post-Doctoral Research Economist	2023 – Present
USFS Rocky Mountain Research Station	Fort Collins, CO
ORISE Post-Doctoral Research Fellow in Water Policy and Economics	2022 - 2023
USFS Rocky Mountain Research Station	Fort Collins, CO

EDUCATION

Ph.D., Agriculture, Food, and Environment	2022
Tufts University	
M.A., Sustainable International Development	2010
Brandeis University	
B.A., Political Science and Global Studies	2005
University of California, Santa Barbara	

RESEARCH

Research Interests and Background

Natural Resource Economics: surface and groundwater resources, water markets, non-market valuation

Political Economy of Property Rights: water rights, law, and policy; bargaining for property rights; land tenure; Indigenous property rights, institutional path dependencies

Environmental Justice: distributional effects of environmental policies; trade-offs between equity and efficiency, social vulnerability to climate change

Peer-Reviewed Publications

Leslie Sanchez. "Bargaining in the Shadow of Prior Appropriation: Understanding Concessions, Tradeoffs, and Outcomes to as Parties Bargain to Resolve Native American Water Rights". *Journal of Political Institutions and Political Economy*. Vol. 5: No. 2, pp 233-257 (2024).

Eric Edwards, Leslie Sanchez, and Sheetal Sekhri. "The Economics of Drought". *Annual Review of Resource Economics*. Vol. 16: 105-124 (2024).

Leslie Sanchez, Bryan Leonard, and Eric Edwards. Paper Water, Wet Water, and the Recognition of Indigenous Property Rights. *Journal of the Association of Environmental and Resource Economics*. Vol 10: No. 6. (2023).

Leslie Sanchez, Travis Warziniack, and Michael Knowles. The Inequitable Exposure of Socially Vulnerable Groups to Water Shortage Across the United States. *Environmental Research Letters*. Vol. 15, 094027 (2023).

Leslie Sanchez, Eric Edwards, and Bryan Leonard (2020). Economics of Indigenous Water Claim Settlements in the American West. *Environmental Research Letters*, vol. 15, 094027. (2020).

Kendy, Eloise, Bruce Aylward, Laura Ziemer, Brian Richter, Bonnie Colby, Theodore Grantham, **Leslie Sanchez**, Will B. Dicharry, Emily M. Powell, Season Martin, Peter W. Culp, Leon S. Szeptycki, Carrie V Kappel. "Water Transactions for Streamflow Restoration, Water Supply Reliability, and Rural Economic Vitality in the Western United States." *Journal of the American Water Resource Association*, 54(2): 487-504 (2018).

Beatrice Rogers, Jennifer Coates, Kathryn Houk, Elizabeth Kegode, **Leslie Sanchez**, and Johanna Andrews. Impact Assessments Conducted at Time of Exit Inconsistently Predict Longer Term Program Benefit in Title II Food Assistance Programs. *Annals of Nutrition and Metabolism*, 63: 25-525 (2013).

Working Papers

Leslie Sanchez, Paul Armsworth, Jasmine Bruno, Sebastian Espinoza, Kathleen Gavin, Varsha Vijay, and Travis Warziniack. "Multi-Hazard Risk Accumulation in Vulnerable Communities in the United States". Under Review.

Travis Warziniack, Ken Bagstad, Michael Knowles, Christopher Miliar, Arpita Nehra, Charles Rhodes, **Leslie Sanchez**, Christopher Sichko, and Charles Sims. "Natural Capital Accounting on Forested Lands in the United States: An application to the Colorado River Basin." NBER. Working Paper.

Reports and Other Publications

Leslie Sanchez, Bryan Leonard, and Eric Edwards (2023). "Federal Barriers Limit Native American Benefits from Water Right Settlements". Hoover Institution Renewing Indigenous Economies. Research Briefing 23-01.

Leslie Sanchez (2022). "How Federal Laws Undermine Native American Water Rights". Property and Environmental Research Center.

Leslie Sanchez, Bryan Leonard, and Eric Edwards (2022). "The Long-term Outcomes of Restoring Indigenous Property Rights to Water". Federal Reserve Bank of Minneapolis. Center for Indian Country Development.

Leslie Sanchez (2021) "Addressing Barriers to Native American Water Marketing". Property and Environmental Research Center.

Martin, Season, Bruce Aylward, Bonnie Colby, Will Dicharry, Theodore Grantham, Eloise Kendy, Emily Powell, Brian Richter, **Leslie Sanchez**, Laura Ziemer (2017). Indicator Guidebook for Water Transaction Programs. The Nature Conservancy and the National Center for Ecological Analysis and Synthesis.

Leslie Sanchez, Bruce Aylward, and Don Springmeyer (2016). Truckee-Carson Surface Water Markets in Northern Nevada. Portland: AMP Insights and Ecosystem Economics; 2016

Bruce Aylward, Davíd Pilz, and **Leslie Sanchez** (2016). Political Economy of Water Markets in the Western United States. Portland: AMP Insights and Ecosystem Economics; 2016.

Beatrice Rogers and Jennifer Coates, Alexander Blau, Kathryn Houk, Elizabeth Kegode, Carisa Klemeyer, and **Leslie Sanchez** (2015). Sustaining Development: A Synthesis of Results from a Study of Sustainability and Exit Strategies among Development Food Assistance Projects. Report prepared for U.S. Agency for International Development/Food and Nutritional Technical Assistance Program. June 2015.

Beatrice Lorge Rogers and **Leslie Sanchez** (2014). Development Dynamics: A Post-Program Study of Sustainability and Exit Strategies in Honduras. Report prepared for U.S. Agency for International Development/Food and Nutrition Technical Assistance Program. June 2014.

Beatrice Lorge Rogers and Leslie Sanchez (2011). A Qualitative Analysis of Exit Strategies in USAID Food Security Programs in Honduras. Report prepared for U.S. Agency for International Development/Food and Nutrition Technical Assistance, April 2011.

Leslie Sanchez (2010) "Greywater as an Option for Improving Water Security in Lebanon's Agriculture Sector". Report prepared for Italian Ministry of Foreign Affairs and International Cooperation. April 2010.

Presentations and Posters

"Bargaining in the Shadow of Prior Appropriation". Political Economy of Native American Policy. University of Southern California. (March 2024)

"Environmental Risks Accrue in Vulnerable Communities in the United States". USDA Climate Hubs. (April 2024)

- "The Inequitable Exposure of Socially Vulnerable Communities to Multi-Hazard Risk". USFS. (August 2023)
- "Wet Water, Paper Water, and Institutional Barriers to Indigenous Water Use". UCOWR. (June 2023)
- "Water Shortage Risks: Overlapping Water Shortages and Social Vulnerability in the United States". International Association for Landscape Ecology (March 2023)
- "Bargaining in the Shadow of Prior Appropriation: Understanding Concessions, Tradeoffs, and Outcomes to as Parties Bargain to Resolve Native American Water Rights". WEAI. (June 2022)
- "Bargaining in the Shadow of Prior Appropriation Water Law". UCOWR. (June 2022)
- "Long-Term Outcomes of Restoring Native American Property Rights to Water". W4190. (October 2021).
- "Barriers to Tribal Water Marketing". Property and Environmental Research Center. (September 2021).
- "Differential Effects of Water Right Restoration Across Land Tenure Classes". Western Economic Association International. Virtual. (June 2021)
- "Differential Effects of Water Right Restoration Across Land Tenure Classes". University Council on Water Resources. (June 2021)
- "The Long-Term Outcomes of Restoring Indigenous Property Rights to Water". (*The Evolution of Markets and the Water Commons* Panel). International Association for the Study of the Commons. Virtual. (May 2021)
- "Native American Water Rights, Contemporary Water Use, and Colonial Legacy of Prior Appropriation" Gender, Race, and Environmental Justice Podcast, MIT. Virtual. (May 2021)
- "The Long-Term Outcomes of Restoring Indigenous Property Rights to Water". Interdisciplinary PhD Workshop on Sustainable Development. Virtual. (April 2021)
- "Water in the West: Institutional Path Dependencies, Colonial Legacies, and Contemporary Water Use". Interdisciplinary PhD Workshop on Sustainable Development". Virtual. (April 2021)
- "Bargaining for Indigenous Water Rights in the American West". Natural Resource Economics Guest Lecture, Tufts University. Virtual. (April 2021)
- "The Evolution of Prior Appropriation Water Law and Indigenous Water Rights in the American West". Water Economics Guest Lecture, NCSU. Virtual. (February 2021)
- "The Long-Term Outcomes of Restoring Indigenous Property Rights to Water". Indigenous Economics Working Group. Virtual. (January 2021)
- "Native American Water Right Adjudications: The Effects of Changes to Water Right Ownership on Water and Land Use in the American West". Property and Environment Research Center. Virtual. (August 2020.)
- "Estimating the Effects of Native American Water Right Security on Land Use". Property and Environmental Research Center. Virtual. (June 2020)
- "Water Scarcity and Outcomes of Indigenous Claims to Water in the American West". Indigenous Capital, Growth, and Property Rights: The Legacy of Colonialism. Hoover Institution, Stanford University. (November 2019)
- "Tribal Water Right Adjudication for Agricultural Use: Perspectives and Discussion". Native Waters Arid Lands Tribal Summit. Reno, NV. (October 2019)
- "Bargaining for American Indian Water Rights". CAMP Resources. Center for Environmental and Resource Economic Policy. Asheville, NC. (August 2019)
- "Metrics to measure how changes in water supply affect crop production and rural economic vitality". Tufts University Friedman School Doctoral Seminar. Boston, MA. (December 2016)
- "US West Case Study: Truckee-Carson River Water Market". Water in the West, Stanford University. Palo Alto, CA. (May 2016)

"Evolution of Western Water Markets: Truckee River Case Study". Tufts University Friedman School Doctoral Seminar. Boston, MA. (May 2016)

"Impact Assessments Conducted at Time of Exit Inconsistently Predict Longer Term Program Benefit in Title II Food Assistance Programs" (poster). International Congress of Nutrition, Granada, Spain. (September 2013)

"Estudios de Estrategías de Salida: Programas de Titulo II en Honduras". U.S. Agency for International Development. Tegucigalpa, Honduras. (August 2013)

"Food Aid Programs: Sustaining Impacts after Program Exit" (poster). Experimental Biology. San Diego, CA. (April 2012)

Teaching and Outreach

USDA Climate Hubs - Climate and Environmental Justice	2022 - 2024	
USFS Denver Urban Field Station	2022 - 2024	
Sustainable Water Markets Student Seminar and Fellowship Program Director (UCSB Bren School)	2013 - 2015	
Awards and Fellowships		
ORISE Post-Doctoral Research Fellowship	2022 - 2024	
Property and Environmental Research Graduate Student Fellowship	2020 - 2021	
Babbitt Center for Land and Water Policy Dissertation Fellowship	2019 - 2020	
Switzer Fellowship	2018 - 2019	
National Science Foundation Integrative Graduate Education and Research Traineeship	2015 - 2018	
Professional Activities and Affiliations		
International Association for the Study of the Commons	2021 - Present	
Indigenous Economics Working Group	2020 - Present	
Agriculture and Applied Economics Association	2019 – Present	

2019 - Present

2019 - Present

Languages & Applications

Association of Environmental and Resource Economics

Women in Agricultural Economics

Programming: Stata; R; ArcGIS; Google Earth Engine (JavaScript); LaTeX; GitHub; NVivo

Spoken: Native English and Spanish; intermediate Italian and French; basic Hungarian and Arabic