# Publications

**Arkansas**

Adams, K., K. Kovacs. 2019. “The adoption rate of efficient irrigation practices and the consequences for aquifer depletion and further adoption.” Journal of Hydrology 571: 244-253.

Kovacs, K., J. Lee, C. Henry, L.J. Krutz, R. Nayga, F. Tsiboe. 2019. “Factors influencing the willingness to pay for on-farm water infrastructure.” Journal of Soil and Water Conservation 74: 259-268.

**California**

Reznik, A., Y. Jiang, and A. Dinar, Policy Implications of Climate Change Impacts on Wastewater Treatment Costs: Evidence from China. UCR SPP Working Paper Se-ries, April 2019 - WP#19-01. (https://spp.ucr.edu/sites/g/files/rcwecm1611/files/2019-05/041819\_Climate%20Change%20Impacts%20on%20Wastewater%20Treatment%20Costs\_WP.pdf.)

Tu, C., S. Suweis, and P. D’Odorico, (2019). Impact of globalization on the resilience and sustainability of natural resources, Nature Sustainability, 2, 283-289.

D'Odorico P., J.A. Carr, K. F. Davis, J. Dell'Angelo, DA Seekell (2019). "Food inequality, injustice, and rights", BioScience, 69(3), 180-190, https://doi.org/10.1093/biosci/biz002.

D’Odorico, P., J.A. Carr, C. Dalin, J. Dell’Angelo, M. Konar, F. Laio, L. Ridolfi, L. Rosa, S. Suweis, M. Tuninetti, (2019). Global virtual water trade and the hydrological cycle: Patterns, drivers, and socio-environmental impacts, Environmental research Letters, 14, 053001. https://doi.org/10.1088/1748-9326/ab05f4.

Rulli, M.C., S. Casirati, J. Dell’Angelo, K.F. Davis, C. Passera, P. D’Odorico, (2019). Interdependencies and telecoupling of oil palm expansion at the expense of Indonesian rainforest, (2019). Renewable & Sustainable Energy Reviews, 105: 499-512, https://doi.org/10.1016/j.rser.2018.12.050.

Rosa, L and P. D’Odorico (2019). The water-energy-food nexus of unconventional oil and gas extraction in the Vaca Muerta Play, Argentina, J. Cleaner Production, 207:743-750. https://doi.org/10.1016/j.jclepro.2018.10.039 .

D’Odorico, P. (2018), The challenges of meeting future food, energy, and water needs, Eos, 99, https://doi.org/10.1029/2018EO098891.

Seekell, D.A., P. D'Odorico, and G.K. MacDonald, 2018. "Food, trade, and the environment", Environm. Res. Lett., 13(10), 100201.

Rosa., L., M.C. Rulli, K.F. Davis, D. Chiarelli, C. Passera, P. D'Odorico, 2018. Closing the yield gap while ensuring water sustainability, Environm. Res. Lett., 13 104002.

Dell'Angelo, J., P. D'Odorico, and M.C. Rulli, (2018). "The neglected costs of water peace", WIREs Water, 5(6), e1316. https://doi.org/10.1002/wat2.1316.

Davis, K.F., A. Bhattachan, P. D'Odorico, and S. Suweis, 2018, "A universal model for predicting human migration under climate change: Examining future sea level rise in Bangladesh", Environm. Res. Lett., 13, 064030, https://doi.org/10.1088/1748-9326/aac4d4.

D’Odorico, P., K.F. Davis, L. Rosa, J.A. Carr, D. Chiarelli, J. Dell’Angelo, J.A. Gephart, G.K. MacDonald, D.A. Seekell, S Suweis, M.C. Rulli, “The global food-energy-water nexus”, Reviews of Geophysics, 56, 456-531, https://doi.org/10.1029/2017RG000591

**Colorado**

Suter, J.F., S. Collie, K.D. Messer, J.M. Duke, and H.A. Michael. 2019. Common Pool Resource Management at the Extensive and Intensive Margins: Experimental Evidence. Environmental and Resource Economics. 73: 973-993.

Palm-Forster, L.H., J.F. Suter, K.D. Messer. 2019. Experimental Evidence on Policy Approaches that Link Agricultural Subsidies to Water Quality Outcomes. American Journal of Agricultural Economics 101(1): 109-133.

Shepler, R., J.F. Suter, D.T. Manning, C. Goemans. 2019. Private Actions and Preferences for Coordinated Groundwater Conservation in Colorado’s Republican River Basin. Journal of the American Water Resources Association 55(3): 657-669.

Manning, D.T, and J.F. Suter. 2019. Production Externalities and the Gains from Management in a Spatially Explicit Aquifer. Journal of Agricultural and Resource Economics 44(1) 194:211.

Lauer M., M. Sanderson, D.T. Manning, J.F. Suter, A. Hrozencik, B. Guerrero, B. Golden. 2018. Values and Groundwater Management in the Ogallala Aquifer Region. Journal of Soil and Water Conservation 73(5): 593-600.

Monger, R., J.F. Suter, D.T. Manning, J.P. Schneekloth. 2018. Retiring Land to Save Water: Participation in Colorado’s Republican River Conservation Reserve Enhancement Program. Land Economics 94(1): 36-51.

Zhong, Hua, et al. "Who pays for water scarcity? Evaluating the welfare implications of water infrastructure investments for cities." The Annals of Regional Science (2019): 1-42.

Shepler, Ryan, et al. "Private Actions and Preferences for Coordinated Groundwater Conservation in Colorado's Republican River Basin." JAWRA Journal of the American Water Resources Association (2019).

Flyr, Matthew, et al. "Modeling Commercial Demand for Water: Exploring Alternative Prices, Instrumental Variables, and Heterogeneity." Land Economics 95.2 (2019): 211-224.

Maas, Alexander, et al. "Complements of the house: Estimating demand-side linkages between residential water and electricity." Water Resources and Economics (2019): 100140.

Stone, Janine, Marco Costanigro, and Christopher Goemans. "Public Opinion on Colorado Water Rights Transfers: Are Policy Preferences Consistent with Concerns over Impacts?." Journal of agricultural and resource economics 43.1835-2018-3858 (2018): 403-422.

Eiswerth, M.E., and G.C. van Kooten. 2019. “Maximizing Returns from Payments for Water-based Ecosystem Services: Incorporating Externality Effects of Land Management.” Journal of the American Water Resources Association. Published online before print: 30 August 2019, https://doi.org/10.1111/1752-1688.12788.

**Idaho**

Flyr, M. et al. Modeling Commercial Demand for Water: Exploring Alternative Prices, Instrumental Variables, and Heterogeneity. Land Econ. 95, 211- 224 (2019).

Maas, A., Goemans, C., Manning, D. T., Burkhardt, J. & Arabi, M. Complements of the house: Estimating demand-side linkages between residential water and electricity. Water Resour. Econ. 100140 (2019). doi:https://doi.org/10.1016/j.wre.2019.02.001

Taylor, Garth. (2019).Book Review: “Water Paradox" by E. Barbeir 2019; Water Economics and Policy.

Larson, Ryan Johnson, D. M., John R. McKean, and R. Garth Taylor. 2019 Valuing Snowmobile Recreation. Applied Economics Forthcoming

Johnson, D. M., John R. McKean, and R. Garth Taylor. Comparing a Hierarchical-Decision Travel Cost Recreation Demand Model to the Traditional Model and Implications for Survey Design. Journal of Leisure Science Forthcoming.

Levan Elbakidze; Hannah Vinson; Kelly Cobourn; R. Garth Taylor. 2018 "Efficient Groundwater Allocation and Binding Hydrologic Externalities" Environmental and Resource Economics 53(1) 147-161.

**Indiana**

Mehan, S., M.W. Gitau, and D.C. Flanagan. 2019a. Reliable future climatic projections for sustainable hydro-meteorological assessments in the Western Lake Erie Basin. Water. https://doi.org/10.3390/w11030581.

Mehan, S., R. Aggarwal, M.W. Gitau, D.C. Flanagan, C.W. Wallace, and J.R. Frankenberger. 2019b. Assessment of hydrology and nutrient losses in a changing climate in a subsurface-drained watershed. Science of the Total Environment. DOI: https://doi.org/10.1016/j.scitotenv.2019.06.314.

Chen, J., Y. Liu, M.W. Gitau, B.A. Engel, D.C. Flanagan, J.M. Harbor. 2019. Evaluation of the effectiveness of green infrastructure on hydrology and water quality in a combined sewer overflow community. Science of the Total Environment. DOI: https://doi.org/10.1016/j.scitotenv.2019.01.416.

**Kansas**

Sampson, G.S., N.P. Hendricks, and M. Taylor. 2019. “Land Market Valuation of Groundwater.” Resource and Energy Economics 58: 101120.

Sampson, G.S. and E.D. Perry. Forthcoming “Peer Effects in the Diffusion of Water Saving Agricultural Technologies.” Agricultural Economics.

**Minnesota**

Levers, L., Skaggs, T., & Schwabe, K. (2019). Buying Water for the Environment: A Hydro- Economic Analysis of Salton Sea Inflows. Agricultural Water Management. 213C, 554-567.

Levers, L., Story, D. & Schwabe, K. (In press). Boons or Boondoggles: An Assessment of Salton Sea Water Importation Proposals. California Agriculture.

Synomik, D., Levers L., & Calow, P. (2019). Lead in Minnesota Drinking Water. Minnesota Department of Health. Retrievable from https://www.health.state.mn.us/communities/environment/water/docs/leadreport.pdf

Kelly, S., Calow, P., Lewandowski, A., Levers, L., Kirby, E., & Ntouko, M. (2018). Interim Report on The Future of Minnesota Drinking Water: A Framework for Managing Risk. Minnesota Department of Health. Retrievable from https://www.wrc.umn.edu/future-minnesota-drinking-water

**North Carolina**

Edwards, E.C. and Null, S.E. 2019. The Cost of Addressing Saline Lake Decline and the Potential for Water Conservation Markets. Science of the Total Environment, vol. 651 Part 1, pp. 435-442.

Edwards, E.C., Cristi, O., Edwards, G., and Libecap, G.D. 2018. An illiquid market in the desert: Estimating the cost of water trade restrictions in northern Chile. Environment and Development Economics, vol. 23 no. 6, pp. 615-634. doi:10.1017/S1355770X18000220

Edwards, E.C. and Smith, S.M. 2018. The Role of Irrigation in the Development of Agriculture in the United States. Journal of Economic History, vol. 78 no. 4, pp. 1-39.

Edwards, E.C. and Sutherland, S.A. 2019. A Guide to Municipal Water Conservation Pricing in Utah. USU Extension Factsheet, Applied Economics/2019-01pr. Available at: https://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=2956&context=extension\_curall

Edwards, E.C., Sutherland, S.A., and von Haefen, R.H. 2019. Should I Stay or Should I Go? Coal Ash in North Carolina. NC State Economist, NC State University College of Ag and Life Science, Winter 2019.

**Oklahoma**

Mirchi, A., Heyman, J., Tchobanoglous, G., Minakata, D., Walker, S., Samimi, M., Guerrero, B., Handler, R. (2019). Community implementation of potable reuse of treated wastewater. In: Halvorsen, K.E., Schelly, C., Handler, R., and Knowlton, J.L. (Eds.). A Research Agenda for Environmental Management. Edward Elgar Publishing. Cheltenham.

Ahn, S., Abudu, S., Sheng, Z., Mirchi, A., (2018). Hydrologic impacts of drought-adaptive agricultural water management in a semi-arid river basin: Case of Rincon Valley, New Mexico. Agricultural Water Management 209, 206-218.

Samimi, M., Tahneen Jahan, N.\*, Mirchi, A. (2018). Assessment of climate change impacts on surface water hydrologic processes in New Mexico-Texas-Mexico border region. Proceedings of the 2018 World Environmental and Water Resources Congress: Protecting and Securing Water and the Environment for Future Generations, American Society of Civil Engineers. Minneapolis, Minnesota.

**Rhode Island**

Guilfoos, T., Hayden, S., Uchida, E., & Oyanedel Craver, V. (2019). WTP for Water Filters and Water Quality Testing Services in Guatemala. Water Resource and Economics. (Forthcoming)

Guilfoos, T., Miao, H., Trandafir, S., & Uchida, E. (2019). Social Learning and Communication with Threshold Uncertainty. Resource and Energy Economics. 55, 81-101.

**Wyoming**

Khadem, M, C. Roug, J.J. Harou, K.M. Hansen, J. Medellin-Azuara and J.R. Lund. 2018. Estimating the economic value of inter-annual reservoir storage in water resource systems. Water Resources Research. DOI:10.1029/2017WR022336.

Hansen, K. 2019. Book Review of Towards Tradable Water Rights: Water Law and Policy Reform in China. Water Economics and Policy 5(3): 1-3. DOI: 10.1142/S2382624X1980002X.

The Nature Conservancy. 2019. Economic Assessment of a Water Demand Management Program in the Upper Green River Basin. PI: Hansen. CoPIs: Roger Coupal and Drew Bennett. (2019-2020). $32,796.

Wyoming State Engineer’s Office. 2019. Stakeholder Engagement in Assessment of Demand Management Plan Options for the Upper Colorado River Basin in Wyoming. PI: Ginger Paige. CoPIs: Kristi Hansen and Anne MacKinnon. (2019-2020). $100,000

**US Forest Service**

Travis Warziniack, Megan Lawson, and S. Karen Dante-Wood. 2018. Effects of Climate Change on Ecosystem Services in the Northern Rockies, in Halofsky and Peterson (eds.) Climate Change and Rocky Mountain Ecosystems, Springer

Countryman, Amanda M., Travis Warziniack, and Erin Grey. 2018. Implications for US trade and nonindigenous species risk resulting from increased economic integration of the Asia-Pacific region. Society & Natural Resources 31, no. 8 (2018): 942-959.

Nong, Duy, Amanda M. Countryman, and Travis Warziniack. 2018. Potential impacts of expanded Arctic Alaska energy resource extraction on US energy sectors. Energy Policy 119: 574-584.

Nong, Duy, Amanda M. Countryman, Travis Warziniack, and Erin K. Grey. 2018. Arctic sea routes: potential new pathways for nonindigenous species spread." Arctic 71, no. 3: 269-280.

Warziniack, Travis, Patricia Champ, James Meldrum, Hannah Brenkert-Smith, Christopher M. Barth, and Lilia C. Falk. 2019. Responding to Risky Neighbors: Testing for Spatial Spillover Effects for Defensible Space in a Fire-Prone WUI Community. Environmental and Resource Economics: 1-25.

Nong, Duy, Travis Warziniack, Amanda M. Countryman, and Erin K. Grey. 2019. Melting Arctic sea ice: Implications for nonindigenous species (NIS) spread in the United States. Environmental Science & Policy 91: 81-91.

Warziniack, Travis, Robert G. Haight, Denys Yemshanov, Jenny L. Apriesnig, Thomas P. Holmes, Amanda Countryman, Christopher Haberland. Forthcoming. Economics of invasive species, in T. Patel-Weynard, Invasive Species State of the Science, Forest Service Technical Report WO-XXX, U.S. Department of Agriculture, Forest Service, Washington, D.C.

Warziniack, Travis, Charles Sims, Jessica Haas. 2019. Fire and the joint production of ecosystem service: A spatial-dynamic optimization approach, Forest Policy and Economics.

Warziniack, Travis, Thomas C. Brown. 2019. The importance of municipal and agricultural demands in future water shortages in the United States, Environmental Resource Letters.