Julie C. Padowski, Ph.D.

Center for Environmental Research, Education and Outreach (CEREO)
State of Washington Water Research Center (WRC)
Washington State University
Pullman, WA 99164
julie.padowski@wsu.edu

APPOINTMENTS

2020-2023	Affiliate Faculty- *Department of Civil and Environmental Engineering, WSU*
2019-2022	Affiliate Faculty- *School of the Environment, WSU*
2018-present	Assistant Director- *Center for Environmental Research, Education & Outreach, WSU*
2017-2023	Honors Faculty Fellow- *Honors College, Washington State University (WSU)*
2017-2020	Affiliate Faculty- *Metropolitan Center for Applied Research & Extension, WSU*
2014-present	Clinical Assistant Professor- *State of Washington Water Research Center, WSU*
2014-2018	Clinical Assistant Professor- *CEREO, WSU*
2012-2014	Post-doctoral Fellow, *Woods Institute for the Environment, Stanford University*

EDUCATION

2011	Ph.D., Soil and Water Science, University of Florida (Gainesville, FL) Dissertation Title: *The complexity of urban water resources management: Water availability and vulnerability for large cities in the United States*
2005	M.S., Soil and Water Science, University of Florida (Gainesville, FL) Minor: Environmental Engineering, Concentration in Hydrologic Sciences Thesis Title: *Direct measurement of water and solute mass fluxes using a passive surface water flux meter*
2003	B.S., Environmental Sciences, University of Rochester (Rochester, NY)

RESEARCH INTERESTS

My research interests are in the areas of water resources sustainability, urban hydrogeography and municipal water demand, and the food-energy-water nexus. Much of my work focuses on understanding patterns in and consequences of human development of water sources, including the physical, social, economic, and institutional drivers. My motivation is fueled by growing concerns around current and emerging water scarcity issues, particularly in urbanized areas. To address these research needs, I merge techniques from hydrology (e.g., water balances, simulation modeling) with geography (GIS, spatial statistics) to answer questions about how humans and geography shape water resource use across a range of spatial and temporal scales.

PUBLICATIONS

Peer reviewed journal articles

1. Jayakaran, A., Moffett, K., Padowski, J.C., Gaolach, B., Godwin, D., 2020. The Growth of Green Infrastructure in the Pacific Northwest- A Survey of Practitioner Insights and Emerging Issues. *Urban Forestry & Urban Greening*. 50, https://doi.org/10.1016/j.ufug.2020.126654

2. Katz, S., Padowski, J.C., Goldsby, M., Brady, M., and Hampton, S.E. 2020. Defining the Nature of the Nexus: Specialization, Shortages, Connectedness, and Scale in Food-Energy-Water Management. *Earth's Future*. *Water*. 12(4), p 972. https://doi.org/10.3390/w12040972

3. Brady, M., Padowski, J.C., Yoder, J., Jessup, E., and Yang, Q. 2019. Reallocating water through small-scale distributed storage in the Skagit River Basin, WA. *J. Am. Water Resour. Assoc*. 55(6), 1464-1478. https://doi.org/10.1111/1752-1688.12795

4. Givens, J., Padowski, J.C., Guzman, C.D., Malek, K., Witinok-Huber, R., Cosens, B., Briscoe, M., Boll, J., and Adam, J. 2018. Incorporating Social System Dynamics into the Food-Energy-Water System Resilience-Sustainability Modeling Process: The Columbia River Basin. *Frontiers in Environmental Science* 6 Article 104. https://doi.org/10.3389/fenvs.2018.00104

5. Allen, L., Gaolach, B., Moffett, K., Brady, M., Collins, D., Padowski, J.C., Rajagopalan, K., Richey, S. 2018. Perspectives on the Food-Energy-Water Nexus in Metropolitan Seattle from stakeholder interviews. *Washington State University Extension Publication.* Washington State University.

6. Padowski, J.C., Carrera, L. and Jawitz, J.W., 2016. Overcoming urban water insecurity with infrastructure and institutions. *Water Res. Manage.* 30(13), 4913-4926 doi:10.1007/s11269-016-1461-0

7. McDonald, R.I., Weber, K., Padowski, J., Boucher, T., and Shemie, D., 2016. Quantifying watershed degradation and its impact on water treatment costs for the world's largest cities. *Proc. Nat. Acad. Sci.* doi: 10.1073/pnas.1605354113

8. Padowski, J.C., Gorelick, S.M., Thompson, B., Rozelle, S. and Fendorf, S., 2015. Assessment of human- natural system characteristics influencing global freshwater supply vulnerability. Environ. Res. Lett. 10 104014 doi: 10.1088/1748-9326/10/10/104014

9. Padowski, J.C. and Gorelick, S.M., 2014. Global analysis of urban surface water supply availability. Environ. Res. Lett. 9 104004 doi:10.1088/1748-9326/9/10/104004**.**

10. McDonald, R.I., Weber, K., Padowski, J., Flörke, M., Schneider, C., Green, P.A., Gleeson, T., Eckman, S., Lehner, B., Balk, D., Boucher, T., Grill, G., and Montgomery, M., 2014. Water on an Urban Planet: Urbanization and the Reach of Urban Water Infrastructure. Global Environmental Change 27: 96–

105. http://dx.doi.org/10.1016/j.gloenvcha.2014.04.022

11. Padowski, J.C. and Jawitz, J.W. 2012. Water availability and vulnerability of 225 large cities in the United States. Water Resources Research. 48, W12529, doi:10.1029/2012WR012335.

12. Padowski, J.C. and Jawitz, J.W. 2009. The Future of Global Water Scarcity: Policy and Management Challenges and Opportunities. *The Whitehead Journal of Diplomacy and International Relations.* 10(2): 99-114 [Invited]. http://blogs.shu.edu/diplomacy/files/archives/08%20Jawitz_Layout%201.pdf

13. Padowski, J.C., Rothfus, E.A., Jawitz, J.W., Klammler, H., Hatfield, K., and Annable, M.D. 2009. Effect of Passive Surface Water Flux Meter Design on Water and Solute Mass Flux Estimates. *Journal of Hydrologic Engineering* 14(12): 1334-1342. http://dx.doi.org/10.1061/(ASCE)HE.1943-5584.0000127

14. Klammler H., Newman, M.A., Szilagyi, E., Padowski, J.C., Hatfield, K., Jawitz, J.W., and Annable, M.D. 2007. Initial test results for a passive surface water fluxmeter to measure cumulative water and solute mass fluxes. *Environmental Science and Technology* 41(7): 2485-2490. **DOI:** 10.1021/es061883i

Non-peer reviewed articles

15. Yoder, J., Rajagopalan, K., Padowski, J.C., 2020. Coevolution of technology & law for water management in Washington State and Beyond. Washington Agribusiness Status and Outlook Report, Impact Center at Washington State University, pp 37-41. http://ses.wsu.edu/impact-center/wp-content/uploads/sites/2/2020/01/WASO_2020_v2_nobleed.pdf

16. McDonald, R.I., Shemie, D., (lead authors), Basset, S., Boccaletti, G., Chen, F., Chung, D., Contreras, H., Cross, K., Edelson, D., Florke, M., Freed, A., Goldstein, J., Karres, N., Kroeger, T., Lehner, B., McCarthy, L., Padowski, J.C., Petry, P., Podolak, K., Richter, B., Roiphe Barreto, S., Schultz, S., Simmons, E., Snow, M., Tallis, H., Tellman, B., Tiepolo, G., Veiga, F., Vigerstol, K., Weber, K., Williams, T., Yilmaz, K., Zhu, L. (contributing authors). 2014. Urban Water Blueprint: Mapping conservation solutions to the global water challenge. *The Nature Conservancy.* Online information tool. http://water.nature.org/waterblueprint

17. Padowski, J.C. 2008. Water Utility Regulation in Mexico: Sharing Lessons. *Water 21- Magazine of the International Water Association*. February 2008: 29-30.

Book Chapters

18. Padowski, J.C., 2019. Freshwater: The Importance of Freshwater for Domestic Use. *Encyclopedia of the World's Biomes.* [*in review*].

19. Padowski, J.C. and Gorelick, S.M., 2016. Global analysis of urban surface water supply availability. In *Sustainable Cities: Urban Planning Challenges and Policy,* K. Etingoff, ed., CRC Press.

Technical Documents & Conference Proceedings

20. Padowski, J.C., Breslow, S, Burgess, C., Day, S.D., Galolach, G., Kolodziej, E., McHolm, T., Moffett, K., Schell, C.J., Townsend, P.A., Davison, J., Gardow, K., Horne, C., Short-Gianotti, A. 2019. The Next Urban Giants: Building Resilience and Equity into Growing Megapolitan Regions by Greening the Urban Human-Natural System. Metropolitan Center for Applied Research & Extension, Washington State University. Available online at: https://s3.wp.wsu.edu/uploads/sites/2158/2019/10/SUS-white-paper-final-Oct-31-2019.pdf

21. Padowski, J.C., Pickering, N., and Yoder, J. 2017. Potential Groundwater Availability at the Hanford Site. Delivered to the Hanford Natural Resource Trustee Council as a contribution to the Trustee Council Groundwater Baseline Study.

22. Barik, M., Adam, J.C., Yoder, J., Brady, M.P., Haller, D., Barber, M.E., Hall, S.A., Kruger, C.E., Yorgey, G.G., Downes, M., Stockle, C.O., Aryal, B., Carlson, T., Damiano, G., Dhungel, S., Einberger, C., Hamel-Reiken, K., Liu, M., Malek, K., McClure, S., Nelson, R., O'Brien, M., Padowski, J.C., Rajagopalan, K., Rakib, Z., Rushi, B., Valdez, W. 2017. 2016 Technical Supplement for the Columbia River Basin Long-Term Water Supply and Demand Forecast. Publication No. 16-12-008. Washington Department of Ecology, Olympia, WA. 216 pp. Online at: https://fortress.wa.gov/ecy/publications/SummaryPages/1612008.html

23. Brady, M., Padowski, J.C., Jessup, E., Yang, Q. and Yoder, J. 2016. Skagit Basin Water Mitigation Feasibility Assessment, Dept. of Ecology, Olympia, WA. Online at: http://www.ecy.wa.gov/programs/wr/instream-flows/Images/pdfs/skagit/WSUSkagit_PublicCommentReport_2Sep2016.pdf

24. Padowski, J.C. et. al. (35 authors). 2016. NSF FEW Workshop White Paper- Addressing the Food-Energy- Water System Trilemma: Balancing Reliance on Technological and Institutional Solutions. *National Science Foundation. Online at:* https://s3.wp.wsu.edu/uploads/sites/95/2017/06/FEW_WhitePaper.pdf

25. Berg, S. and Padowski, J.C. 2007. Overview of Water Utility Benchmarking Methodologies: From Indicators to Incentives. *Public Utility Research Center Working Paper 07-12. Online at: http://warrington.ufl.edu/centers/purc/purcdocs/papers/0712_Berg_Overview_of_Water.pdf*

RESEARCH AWARDS/FUNDING

Funding Awarded

2020 DOI BLM: “Quantifying the state of groundwater in the Columbia Basin with stakeholder-driven monitoring” and fits within the Sustainable Resources Grand Challenge” [$299,940, PI: S Richey, co-PI: J. Padowski]

2020 State of Washington: “Skagit Supply and Demand Forecast” [$517,772, PI: J. Yoder, co-PI: J. Padowski]

2019 State of Washington: “Columbia River Basin Supply and Demand Forecast” [$1,301,233, PI: J. Adam, co-PI: J. Padowski]

2019 NSF: “SUSRN-Advancing Conference: The Next Urban Giants: Building Resilience and Equity into Growing Megapolitan Regions by Greening the Urban Human-Natural System” [$50,000, PI: B. Gaolach, co-PI: J. Padowski]

2019-2020 NASA ROSES: "Coupling Earth observation data and ecohydrological modeling to predict disturbance-induced runoff and sedimentation for municipal water quantity and quality planning” [$99,978; PI: J. Padowski]

2019-2024 USAID: “Egyptian Center of Excellence in Water” [$780,602, Sub-contract: J. Padowski]

2018-2019 State of Washington: “Defining Net Ecological Benefit for implementation of ESSB 6091” [$95,164; PI: J. Yoder, co-PI: J. Padowski]

2018-2021 NSF: “CNH-RCN: A research network for the resilience of headwater systems and water availability for downstream communities across the Americas” [$499,914; PI: J. Boll, co-PI: J. Padowski]

2018-2021 USDA-NIFA: “Technology for trade: new tools and new rules for water use efficiency in agriculture and beyond” [$5,166,223; PI: J. Yoder, co-PI: J. Padowski]

2018-2020 PBAC: “A physically based decision-making support tool for the upper Palouse Basin aquifer” [$65,000; PI: N. Engdahl, co-PI: J. Padowski]

2017 State of Washington and US Department of Energy: “Hanford Groundwater Research Project” [$40,000, PI: J. Yoder, co-PI: J. Padowski]

2016-2020 NSF: “INFEWS/T1: “Increasing regional to global-scale resilience in FEW systems through coordinated management of storage in concert with innovations in technology and institutions” [$2,999,249; PI: J. Adam, co-PI: J. Padowski]

2016 State of Washington: "Skagit Basin Water Mitigation Feasibility Assessment Study" [$72,000, PI: M. Brady, co-PI: J. Padowski]

2015 NSF: "FEW Workshop: Addressing the Food-Energy-Water System Trilemma- Balancing Reliance on Technological and Institutional Solutions" [$44,953; PI: J.Padowski]

2010 NWRI Ronald B. Linsky Fellowship for Outstanding Water Research [$10,000]

TEACHING & MENTORING EXPERIENCE

2019-present Committee member (Washington State University)
Serve as a committee member for three graduate students – one MS in Civil and Environmental Engineering, two PhDs one each in School of the Environment and the Individual Interdisciplinary Doctoral Degree Program.

2015-2018 Instructor (Washington State University)
HON290: *Science as a Way of Knowing (honors undergraduate curriculum)*
Lead instructor of an undergraduate seminar class exploring environmental research through reading, structured discussion, and environmental research proposal development.

2015 Instructor (Washington State University)
HON499: *Science as a Way of Knowing (honors undergraduate curriculum)*
Lead instructor of an undergraduate seminar class exploring environmental research through active engagement in the CEREO Seminar Series. This was transformed into HON290.

2013 Co-Mentor (Stanford University)
SESUR and SURGE Undergraduate Research Programs, Summer 2013

2012 Co-Mentor (Purdue University/University of Florida)
Environmental Engineering Summer Research Program, Summer 2012

2008-2012 Co-Instructor (University of Florida)
Water Resources Sustainability (undergraduate/graduate curriculum), Spring 2012
Water, Environment and Society (undergraduate curriculum), Fall 2008, 2010

2005 & 2010 Teaching Assistant (University of Florida), Spring 2005, 2010
Introduction to Soils in the Environment Laboratory Section (undergraduate curriculum), Water Resources Sustainability (2005) and Wetlands (2010) (undergraduate online curricula)

MEETINGS & CONFERENCE PRESENTATIONS

1. Padowski, J.C., 2019. Drinking Water Challenges Impacting Small to Mid-Sized US Cities In Developed Watersheds. American Geophysical Union, San Francisco, 9-13 Dec. Invited. Talk No. H44E-05

2. Padowski, J.C., Yoder, J., Rajagopalan, K. 2019. Technology for trade: adapting information technology and institutions to improve water use for agriculture. American Geophysical Union, San Francisco, CA, 9-13 Dec. Poster No. B11R-2210.

3. Boll, J., Stone, M.C., Fremier, A.K., Padowski, J.C., Walsh-Dilley, M., Scott, C.A. 2019. Resilience of headwater systems and water availability for downstream human and ecosystem uses across a Transect of the Americas. American Geophysical Union, San Francisco, CA, 9-13 Dec. Poster No. H43K-2172.

4. Scott, C.A., Fremier, A.K., Padowski, J.C., Walsh-Dilley, M., Cèlleri, R., Arumi, J., Barra, R., Munoz, E., Boll, J., Stone, M.C. 2019. Headwater-Dependent Systems: Definition, Drivers of Change and Potential Futures. American Geophysical Union, San Francisco, CA, 9-13 Dec. Talk No. H52F-03.

5. Padowski, J.C., Hohner, A., Hall, S. 2019. Identifying critical data and decision-support tools for municipal water quantity and quality planning to account for the impacts of wildfire in the Pacific Northwest, USA. American Geophysical Union, San Francisco, CA, 9-13 Dec. Poster No. PA31G-1082

6. Guzman, C., Givens, J., Padowski, J.C., Malek, K., Briscoe, M., Hall, S., Adam, J.C. 2019. Integration of Socio-Cultural-Environmental Data in the Columbia River Basin: Food-Energy-Water Resilience Assessment. American Geophysical Union, San Francisco, CA, 9-13 Dec. Poster No. GC34B-03

7. Padowski, J.C. 2019. Creating a network for interdisciplinary collaboration to advance wildfire science and engineering. Cascadia Innovations Corridor Conference, Seattle, WA, 2-3 Oct. Invited talk.

8. Padowski, J.C. 2019. Assessing Drinking Water Utility Resilience in Large Cities Through Infrastructure and Institutions. University of New Mexico Resilience Colloquium. 6-7 Aug, Albuquerque, NM. Invited talk.

9. Padowski, J.C., Hohner, M., Hall, S. 2019. Coupling Earth Observation Data and Ecohydrological Modeling to Predict Disturbance-Induced Runoff and Sedimentation for Municipal Water Quantity and Quality Planning. NASA Applied Sciences Program, Portland OR, 16-19 July. Oral and poster presentations.

10. Mueller, D., Goldsby, M., Roshan, H., Hoard, S., Padowski, J.C. 2019. Modeling the Uptake and Spread of Technological and Institutional Innovations in Managed Storage for a FEW System. University Council on Water Resources, Snowbird UT, 11-13 June. Oral presentation.

11. Padowski, J.C., Powers, S. 2019. Adapting to Water Stress: identifying water supply system constraints and options in rapidly growing US cities. National Urban Extension Conference, Seattle WA, 21-23 May. Poster presentation.

12. Padowski, J.C., Adam, J.C., Boll, J., Katz, S., McLarty, D. 2018. Building resilience in FEW systems through innovations in technology and institutions for coordinated resource management. University Council on Water Resources, Pittsburgh PA, 26-28 June. Oral presentation.

13. Padowski, J.C., Adam, J.C., Boll, J., Katz, S., McLarty, D. 2017. Strategies to Move From Conceptual Models to Quantifying Resilience in FEW Systems. American Geophysical Union, New Orleans, 11-15 Dec. Poster No. GC33A-1051

14. Goldsby, M., Padowski, J.C., Katz, S., Brady, M., Hampton, S.E. 2017. Establishing a Conceptual Foundation for Addressing Challenges Facing Food-Energy-Water Management. American Geophysical Union, New Orleans, 11-15 Dec. Poster No. GC33A-1052

15. Malek, K., Adam, J.C., Richey, A.S., Rushi, B.R., Stockle, C., Yoder, J., Barik, M., Lee, S., Rajagopalan, K., Brady, M., Barber, M.E., Boll, J., Padowski, J.C. 2017. Two Case Studies to Quantify Resilience across Food-Energy-Water Systems: the Columbia River Treaty and Adaptation in Yakima River Basin Irrigation Systems. American Geophysical Union, New Orleans, 11-15 Dec. Poster No. GC33A-1053

16. Givens, J., Padowski, J.C., Malek, K., Guzman, C.D., Boll, J., Adam, J.C., Witinok-Huber, R. 2017. Incorporating Social System Dynamics into the Food-Energy-Water System Resilience-Sustainability Modeling Process. American Geophysical Union, New Orleans, 11-15 Dec. Poster No. GC33A-1054

17. Padowski, J.C. (December 2017). Increasing Resilience Across the Food, Energy, and Water Sectors in the Columbia River Basin. NSF FEWSTERN Workshop, Knoxville, TN. Invited Speaker.

18. Padowski, J.C., and B. Gaolach. (June 2017). Increasing regional to global-scale resilience in a climate constrained world. NSF FEWSTERN Workshop, Knoxville, TN. Invited Speaker.

19. Padowski, J.C., and J. Adam. (2017). INFEWS/T1: Increasing regional to global-scale resilience in FEW systems through coordinated management of storage in concert with innovations in technology and institutions. NSF INFEWS Principal Investigator Meeting, Arlington, VA. Poster.

20. Padowski, J.C., Brady, M., Jessup, E., Yang, Q., Yoder, J. (2016). Coordinating Mitigation Strategies for Meeting In-Stream Flow Requirements in the Skagit River Basin, WA American Geophysical Union, San Francisco, CA. Poster # H53A-1656.

21. Padowski, J.C., Carrera, L.C., and Jawitz, J.W. (2015). Integrating Infrastructure and Institutions to Assess Water Security in Large Urban Areas. American Geophysical Union, San Francisco, CA. Oral

presentation.

22. Padowski, J.C., and Gorelick, S.M. (2013). Vulnerability of supply basins to demand from multiple cities. American Geophysical Union, San Francisco, CA. Poster # H21J-1210

23. Padowski, J.C., and Jawitz, J.W. (2011). Untapped reservoirs: a storage-based approach for assessing urban water availability & vulnerability across the United States. American Geophysical Union, San Francisco, CA. Oral presentation.

24. Padowski, J.C., and Jawitz, J.W. (2010). Assessing Urban Water Supply Vulnerability. The Water Institute Symposium, Gainesville, FL. Poster # 311.

25. Padowski, J.C., Jawitz, J.W., Unel, B., Berg, S.V., O'Neil, K., Esterson, K. (2008) Inverse modeling of a dynamic decision support system for water resources planning and management. Water Institute Conference, Gainesville, FL. Poster # 407

26. Padowski, J.C. and Jawitz, J.W. (2007) Validation of a Multi-Criteria Decision Model for Water Resources Planning. UF Soil and Water Science Departmental Forum, Gainesville, FL. Oral presentation.

27. Padowski, J.C., Atkinson, E.C., Jawitz, J.W., Hatfield, K., Annable, M.D., Klammler, H. (2007) An Investigation of the Effects of PSFM Body Design on Measurement Accuracy and Optimal Deployment Duration. American Geophysical Union- Spring Meeting. Acapulco, Mexico. Poster # H28-8487

28. Padowski, J.C. and Berg, S.V. (2007) Survey of Benchmarking Methodologies: Improving Utility Efficiencies. Seminario Internacional de Gestión y Regulación de los Servicios de Agua Potable y Saneamiento: La Experiencia Mexicana e Internacional. Mexico City, Mexico. Oral presentation.

ACADEMIC AWARDS AND HONORS

2018	Outstanding Reviewer Award for Environmental Research Letters
2014	Best Article for 2014- Environmental Research Letters Editorial Board
2014	Stanford School of Earth Sciences Certificate for Outstanding Achievement in Mentoring
2011	Excellence in Graduate Studies Award, UF Soil and Water Science Dept., Ph.D. Level
2010	EWRI-ASCE Journal of Hydrologic Engineering 2010 Best Paper Notable Mention Award
2007	William K. Robertson Graduate Student Fellowship Award

ACADEMIC SERVICE

Advisory Positions

2019- present	Egyptian Center of Excellence for Water Steering Committee- Committee Member
2018- present	Northwest Climate Adaption Science Center- University Advisor
2018- present	Consortium of Universities for the Advancement of Hydrologic Science- WSU Delegate
2018- present	University Council on Water Resources- WSU Delegate
2018- present	Engineers without Borders- WSU Faculty Mentor
2017- present	WSU Student Water Resources Club- Faculty Advisor
2017	Food Systems Initiative Steering Committee- WSU External Advisory Member
2016-present	WSU SURCA Undergraduate Research- Student Poster Judge
2016-present	USGS 104(b) Water Research Grants- Proposal Reviewer
2016-present	WSU Honors College Program- Thesis Reviewer
2016-2018	WSU Udall Distinguished Scholarship- Review Panel Member
2016-2018	WSU LSAMP Faculty Research Mentor- Reviewer
2014-present	WSU Sustainability & Environment Committee- Executive Committee Member
2014-present	Palouse Basin Aquifer Committee- Water Research Center Representative

Program Coordination

2019- present	WSU-WRC Interdisciplinary Water Resources Certificate Program for Graduate Students
2017-present	WSU-WRC Interdisciplinary Water Resources Certificate Program for Undergraduates
2016-present	WRC-SULI Summer Internship Program- Co-coordinator
2016-present	C-NSPIRE Graduate Certificate Program
2016-2018	CEREO Newsroom Student Training Program
2015-2016	CEREO/CSANR/WRC FEW Seed Grants- Co-coordinator
2015-present	Software and Data Carpentry Training Workshops- Co-coordinator (~60 attendees/yr)
2014-present	CEREO Seminar Series (~10-15 lecturers per year)

Guest Lectures

2020	Human Impacts on Hydrologic Systems. Lecture for SOE 315: Water and the Earth. 9 Mar.
2019	Living with Fire- creating a network for institutional-wide collaboration to advance wildfire science and engineering excellence, WSU Office of Research Seed Grant Program, 22 Oct.
2019	Environmental Factors Affecting Skagit Water Supply. WA Legislative Task Force. 17 Oct
2019	Tapping into your water. Palouse Basin Aquifer Committee Water Summit. 10 Oct.
2019	The language of water: how it supports us and what it's telling us. Presented with Dr. Debbie Lee (Dept. of English, WSU). Palouse Discovery Science Center Pub Talk. 7 May.

2017 Managing for water sustainability. Lecture for ENVR_SCI 483: Sustainability- Applied Improvement or Promotion Projects. 19 April.

2016 Managing for water sustainability. Lecture for ENVR_SCI 483: Sustainability- Applied Improvement or Promotion Projects. 18 April.

Ad Hoc Reviewer (2014-present)

Peer Reviewed Journals: Water Resources Research, Environmental Research Letters, Water Policy, Sustainability, Ecological Economics, Forests, Water, Hydrologic and Earth System Sciences, Science of the Total Environment, World Development

National Science Foundation: Ad-hoc reviewer, Coupled Human and Natural Systems Program