

# Ashlynn S. Stillwell

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## Education

- 2013 Ph.D. Civil Engineering, The University of Texas at Austin  
Dissertation: *Water Impacts on Thermoelectric Power Generation* (Advisor: Michael E. Webber)
- 2010 M.S. Environmental and Water Resources Engineering, The University of Texas at Austin  
Thesis: *Energy-Water Nexus in Texas*
- 2010 M.P.Aff. Public Affairs, The University of Texas at Austin
- 2006 B.S. Chemical Engineering (Environmental Emphasis), University of Missouri, Columbia  
*Summa cum laude*

## Academic and professional experience

- since 2019 Associate Professor; Civil and Environmental Engineering; University of Illinois Urbana-Champaign; Urbana, IL
- since 2017 Affiliate; Electrical and Computer Engineering; University of Illinois Urbana-Champaign; Urbana, IL
- 2013–2019 Assistant Professor; Civil and Environmental Engineering; University of Illinois Urbana-Champaign; Urbana, IL
- 2015–2018 Assistant Professor; Institute for Sustainability, Energy, and Environment; University of Illinois Urbana-Champaign; Urbana, IL
- 2007–2013 Graduate Research Assistant; Civil, Architectural, and Environmental Engineering; The University of Texas at Austin; Austin, TX
- 2009 Summer Research Fellow; Congressional Research Service; Washington, D.C.
- 2006–2007 Assistant Chemical Engineer; Burns & McDonnell; Kansas City, MO
- 2004–2006 Undergraduate Research Assistant; Chemical Engineering; University of Missouri; Columbia, MO

## Honors and awards

- since 2019 Elaine F. and William J. Hall Excellence Faculty Scholar in CEE, University of Illinois Urbana-Champaign
- 2022–2023 Earth Leadership Program Fellow, Future Earth
- 2022 Invited session organizer, China-America Frontiers of Engineering Symposium, National Academy of Engineering
- 2022 Best Policy Oriented Paper Award, *Journal of Water Resources Planning and Management*, American Society of Civil Engineers
- 2021 Best Paper Award, *Journal of Sustainable Water in the Built Environment*, American Society of Civil Engineers
- 2019 Invited speaker, Arab-American Frontiers of Science, Engineering, and Medicine Symposium, National Academies of Science, Engineering, and Medicine
- 2019 Universities Council on Water Resources Early Career Award for Applied Research
- 2014–2021 List of Teachers Ranked as Excellent by their Students, University of Illinois Urbana-Champaign

- 2018 Association of Environmental Engineering and Science Professors Award for Outstanding Teaching in Environmental Engineering and Science
- 2018 Invited participant, Japan-America Frontiers of Engineering Symposium, National Academy of Engineering
- 2018 Rose Award for Teaching Excellence, University of Illinois Urbana-Champaign
- 2018 Theta Chapter of Alpha Omega Epsilon Amy L. Devine Award (for contribution to the University of Illinois Urbana-Champaign, engineering students, and the engineering profession)
- 2017–2019 Sinai and Synapses Fellowship
- 2016 *Environmental Science & Technology* Excellence in Review Award
- 2015 Girl Scouts of Central Illinois Woman of Distinction Award for STEM
- 2015 CEE Excellence Award on Undergraduate Advising and Mentoring, University of Illinois Urbana-Champaign
- 2011 American Water Works Association Academic Achievement Award, Second Place Master’s Thesis
- 2009–2012 National Science Foundation Graduate Research Fellowship
- 2006 Mizzou ’39 (group of 39 outstanding seniors from the University of Missouri)

## Professional certifications

- 2006 Engineer Intern – Engineer in Training (EIT), effective July 28, 2006

## Research funding

(TOTAL FUNDING: \$5,012,401; TOTAL STILLWELL PORTION: \$1,455,329)

- 2021–2022 *Assessing the Feasibility of Non-Potable Water Reuse in Illinois.*  
Illinois Water Resources Center  
Role: Principal Investigator; Total funding: \$30,000  
Co-PI: Allisa Hastie (M.S. student), Department of Civil and Environmental Engineering; University of Illinois Urbana-Champaign
- 2021 *RURAL: Resilient Urban-Rural Analysis for Livability.*  
University of Illinois Urbana-Champaign, Institute for Sustainability, Energy, and Environment  
Role: Co-Principal Investigator; Total funding: \$30,000  
PI: Amy Ando, Department of Agricultural and Consumer Economics; University of Illinois Urbana-Champaign
- 2020–2024 *EFRI DChEM: Renewable Energy Driven Electrocatalytic Co-Conversion of CO<sub>2</sub> and Regional Feedstocks to Chemicals and Fuels.*  
National Science Foundation  
Role: Co-Principal Investigator; Total funding: \$1,999,090 (Stillwell portion: \$325,410)  
PI: David Flaherty, Department of Chemical and Biomolecular Engineering; University of Illinois Urbana-Champaign
- 2020–2025 *CIRCLE: Center for Infrastructure Resilience in Cities as Livable Environments.*  
UIUC-ZJUI Joint Research Center  
Role: Co-Principal Investigator; Total funding: \$1,500,000 (Stillwell portion: \$239,470)  
PI: Billie F. Spencer, Jr., Department of Civil and Environmental Engineering; University of Illinois Urbana-Champaign
- 2020–2021 *Modeling the Effects of Green Stormwater Infrastructure Implementation on Urban Hydrology and Urban Heat Islands in Illinois.*  
Illinois Water Resources Center  
Role: Co-Principal Investigator; Total funding: \$30,000 (Stillwell portion: \$16,925)

PI: Lei Zhao, Department of Civil and Environmental Engineering; University of Illinois Urbana-Champaign

- 2019–2020 *Exposure of Urban Food-Energy-Water (FEW) Systems to Water Scarcity.*  
Zhejiang University-University of Illinois at Urbana-Champaign Institute  
Role: Co-Principal Investigator; Total funding: \$74,958 (Stillwell portion: \$22,458)  
PI: Megan Konar, Department of Civil and Environmental Engineering; University of Illinois Urbana-Champaign
- 2019–2020 *Conference: Challenges to and Opportunities for Resilience in Rapidly Developing Urban Corridors.*  
National Science Foundation  
Role: Co-Principal Investigator; Total funding: \$49,925 (Stillwell portion: \$1,500)  
PI: Jay Banner, Department of Geological Sciences; The University of Texas at Austin
- 2019–2020 *Estimating Residential Hot Water Use from Smart Electricity Data.*  
Illinois Water Resources Center  
Role: Principal Investigator; Total funding: \$30,000  
Co-PI: Joseph Bongungu (M.S. student), Department of Civil and Environmental Engineering; University of Illinois Urbana-Champaign
- 2019–2024 *CAREER: Water and Energy Sustainability in the Built Environment: Systems Science for the Blue City.*  
National Science Foundation  
Role: Principal Investigator; Total funding: \$508,546
- 2018–2020 *Hydrogeologic Soil Research for Green Stormwater Infrastructure Planning and Design: New Methods for Adapting Coastal Communities.*  
Illinois-Indiana Sea Grant  
Role: Co-Principal Investigator; Total funding: \$265,717 (Stillwell portion: \$58,307)  
PI: Mary Pat McGuire, Department of Landscape Architecture; University of Illinois Urbana-Champaign
- 2018 *Exploratory Analysis of Household Energy Use with Big Data.*  
University of Illinois Urbana-Champaign, Center for Applied Collaboration on Human Environments  
Role: Principal Investigator; Total funding: \$23,593  
Co-PI: Paul Francisco, Applied Research Institute; University of Illinois Urbana-Champaign
- 2017–2018 *Modeling the Integration of Green Infrastructure into Urban Landscapes Using a Reliability-Based Framework.*  
Illinois Water Resources Center  
Role: Principal Investigator; Total funding: \$30,000  
Co-PI: Reshmina William (Ph.D. student), Department of Civil and Environmental Engineering; University of Illinois Urbana-Champaign
- 2015–2018 *Interdependent Critical Infrastructure Systems for Synergized Utilization of Multiple Energy Sources Toward Sustainable Vehicular Transportation.*  
University of Illinois Urbana-Champaign, Institute for Sustainability, Energy, and Environment  
Role: Co-Principal Investigator; Total funding: \$350,000 (Stillwell portion: \$78,548)  
PI: Thomas Overbye, Department of Electrical and Computer Engineering; University of Illinois Urbana-Champaign
- 2015–2016 *Characterizing the Performance and Cost-Effectiveness of Energy and Water Efficiency Measures in Buildings.*  
Siebel Energy Institute  
Role: Principal Investigator; Total funding: \$25,000  
Co-PI: Philip Krein, Department of Electrical and Computer Engineering; University of Illinois Urbana-Champaign

- 2015–2016 *Modeling and Prediction of Watershed-Scale Dynamics of Consumptive Water Reuse for Power Plant Cooling*.  
 Illinois Water Resources Center  
 Role: Principal Investigator; Total funding: \$30,000  
 Co-PI: Zachary Barker (M.S. student), Department of Civil and Environmental Engineering; University of Illinois Urbana-Champaign
- 2014–2015 *Estimating Current and Future Impacts of Power Plants on Water Quantity and Quality in Large River Systems*.  
 National Great Rivers Research & Education Center  
 Role: Principal Investigator; Total funding: \$35,572  
 Co-PI: Zhenxing Zhang, Illinois State Water Survey; University of Illinois Urbana-Champaign

## Peer-reviewed journal publications

(PUBLICATIONS WITH ADVISED STUDENTS/POST-DOCS\* AS NOTED; CORRESPONDING AUTHOR<sup>†</sup> AS NOTED)

61. Zahra Heydari\*, Andrea Cominola, and **Ashlynn S. Stillwell**<sup>†</sup>. (2022) “Is smart water meter temporal resolution a limiting factor to residential water end-use classification? A quantitative experimental analysis.” *Environmental Research: Infrastructure and Sustainability*, under review.
60. Christopher M. Chini<sup>†</sup>, Jenni Nugent\*, **Ashlynn S. Stillwell**, and Rebecca A. M. Peer. (2022) “A Critical Review on the Accounting of Energy in Virtual Water Trade.” *Water Resources Research*, submitted.
59. Junren Wang, Megan Konar, Carole Dalin, Yu Liu, **Ashlynn S. Stillwell**, Ming Xu, and Tingzhu Zhu. (2022) “Economic and virtual water multilayer networks in China.” *Environmental Science & Technology*, under review.
58. Joseph L. Bongungu\*, Paul W. Francisco, Stacy L. Gloss, and **Ashlynn S. Stillwell**<sup>†</sup>. (2022) “Estimating residential hot water consumption from smart electricity meter data.” *Environmental Research: Infrastructure and Sustainability*, in revision.
57. Jenni Nugent\*<sup>†</sup>, Scott M. Lux, Christopher Martin, and **Ashlynn S. Stillwell**. (2022) “A water and greenhouse gas inventory for hygroscopic building-scale cooling tower operations.” *Building and Environment*, 218(1), 109086.  
[doi:10.1016/j.buildenv.2022.109086](https://doi.org/10.1016/j.buildenv.2022.109086)
56. Jacob Kravits<sup>†</sup>, Joseph R. Kasprzyk, Kyri Baker, and **Ashlynn S. Stillwell**. (2022) “Incorporating Thermoelectric Power Plant Water Use into Multi-Objective Optimal Power Flow.” *Environmental Research: Infrastructure and Sustainability*, 2(1), 015005.  
[doi:10.1088/2634-4505/ac4d18](https://doi.org/10.1088/2634-4505/ac4d18)
55. Allisa G. Hastie\*, Christopher M. Chini\*, and **Ashlynn S. Stillwell**<sup>†</sup>. (2022) “A Mass Balance Approach to Urban Water Analysis Using Multi-resolution Data.” *Journal of Industrial Ecology*, 26(1), 213–224.  
[doi:10.1111/jiec.12995](https://doi.org/10.1111/jiec.12995)
54. Gabrielle M. Bethke\*, Reshmina William\*, and **Ashlynn S. Stillwell**<sup>†</sup>. (2022) “Rain Garden Performance as a Function of Native Soil Parameters.” *Journal of Sustainable Water in the Built Environment*, 8(1), 04021021.  
[doi:10.1061/JSWBAY.0000967](https://doi.org/10.1061/JSWBAY.0000967)
53. Mary Pat McGuire<sup>†</sup>, Andrew C. Phillips, David A. Grimley, **Ashlynn S. Stillwell**, Jinyu Shen, Reshmina William\*, and Margaret Schneemann. (2021) “Retrofitting urban land through integrative, subsoils-based

- planning of green stormwater infrastructure: A research framework.” *Environmental Research: Infrastructure and Sustainability*, 1(3), 035003.  
doi:10.1088/2634-4505/ac27bd
52. Reshmina William\*, Paolo Gardoni, and Ashlynn S. Stillwell†. (2021) “Predicting green infrastructure performance under antecedent moisture conditions using stochastic life-cycle analysis.” *Sustainable and Resilient Infrastructure*, 6(3-4), 143-155.  
doi:10.1080/23789689.2019.1660549
51. Trevor L. Auth\*, Grace E. Wackerman\*, Marcelo H. Garcia, and Ashlynn S. Stillwell†. (2021) “Low-Head Hydropower as a Reserve Power Source: A Case Study of Northeastern Illinois.” *Renewable Energy*, 175(1), 980-989.  
doi:10.1016/j.renene.2021.04.099
50. Gabrielle M. Bethke\*, Abigail R. Cohen\*, and Ashlynn S. Stillwell†. (2021) “Disaggregating Residential Sector High-Resolution Smart Water Meter Data into Appliance End-Uses with Unsupervised Machine Learning.” *Environmental Science: Water Research & Technology*, 7(3), 487-503.  
doi:10.1039/DoEW00724B
49. Lauren H. Logan†\*, Rohini S. Gupta\*, Amy Ando, Cory Suski, and Ashlynn S. Stillwell. (2021) “Quantifying Tradeoffs between Electricity Generation and Fish Populations via Population Habitat Duration Curves.” *Ecological Modelling*, 440(1), 109373.  
doi:10.1016/j.ecolmodel.2020.109373
48. Brendan Purcell, Zachary A. Barkjohn\*, Joseph R. Kasprzyk†, and Ashlynn S. Stillwell. (2021) “Linking Reclaimed Water Consumption with Quantitative Downstream Flow Impacts.” *Journal of Water Resources Planning and Management*, 147(5), 04021021. **2022 Best Policy Oriented Paper Award**  
doi:10.1061/(ASCE)WR.1943-5452.0001335
47. Christopher M. Chini†, Lauren E. Excell\*, and Ashlynn S. Stillwell. (2021) “A review of energy-for-water data in energy-water nexus publications.” *Environmental Research Letters*, 15(12), 123011.  
doi:10.1088/1748-9326/abcc2a
46. Christopher M. Chini†, Lauren H. Logan, and Ashlynn S. Stillwell. (2020) “Grey Water Footprints of U.S. Thermoelectric Power Plants from 2010-2016.” *Advances in Water Resources*, 154(1), 103733.  
doi:10.1016/j.advwatres.2020.103733
45. Mario Roidt, Christopher M. Chini, Ashlynn S. Stillwell, and Andrea Cominola†. (2020) “Unlocking the impacts of COVID-19 Lockdowns: Changes in Electricity Water Footprint and Virtual Water Trade in Europe.” *Environmental Science & Technology Letters*, 7(9), 683-689.  
doi:10.1021/acs.estlett.0c00381
44. Christopher M. Chini\*† and Ashlynn S. Stillwell. (2020) “One model does not fit all: Bottom-up indicators of residential water use provide limited explanation of urban water fluxes.” *Journal of Sustainable Water in the Built Environment*, 6(3), 04020011. **Featured as Editor’s Choice**  
doi:10.1061/JSWBAY.0000916
43. Reshmina William\*, A. Bryan Endres†, and Ashlynn S. Stillwell. (2020) “Integrating Green Infrastructure into Stormwater Policy: Reliability, Watershed Management, and Environmental Psychology as Holistic Tools for Success.” *Journal of Environmental Law and Policy*, 38(1), 37-59.

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42. Christopher M. Chini\* and Ashlynn S. Stillwell<sup>†</sup>. (2020) “The changing virtual water trade network of the European electric grid.” *Applied Energy*, 260(1), 114151.  
[doi:10.1016/j.apenergy.2019.114151](https://doi.org/10.1016/j.apenergy.2019.114151)
41. Christopher M. Chini\* and Ashlynn S. Stillwell<sup>†</sup>. (2020) “Envisioning Blue Cities: Urban Water Governance and Water Footprinting.” *Journal of Water Resources Planning and Management*, 146(3), 04020001.  
[doi:10.1061/\(ASCE\)WR.1943-5452.0001171](https://doi.org/10.1061/(ASCE)WR.1943-5452.0001171)
40. Lucas A. Djehdian\*, Christopher M. Chini\*, Landon Marston, Megan Konar, and Ashlynn S. Stillwell<sup>†</sup>. (2019) “Exposure of Urban Food-Energy-Water (FEW) Systems to Water Scarcity.” *Sustainable Cities and Society*, 50(1), 101621.  
[doi:10.1016/j.scs.2019.101621](https://doi.org/10.1016/j.scs.2019.101621)
39. Christopher M. Chini\* and Ashlynn S. Stillwell<sup>†</sup>. (2019) “The Metabolism of U.S. Cities 2.0.” *Journal of Industrial Ecology*, 23(6), 1353–1362.  
[doi:10.1111/jiec.12923](https://doi.org/10.1111/jiec.12923)
38. William N. Lubega\* and Ashlynn S. Stillwell<sup>†</sup>. (2019) “Analyzing the Economic Value of Thermal Power Plant Cooling Water Consumption.” *Water Resources and Economics*, 27(1), 100137.  
[doi:10.1016/j.wre.2019.01.003](https://doi.org/10.1016/j.wre.2019.01.003)
37. Reshmina William\*, Paolo Gardoni, and Ashlynn S. Stillwell<sup>†</sup>. (2019) “Reliability-Based Approach to Investigating Long-Term Clogging in Green Stormwater Infrastructure.” *Journal of Sustainable Water in the Built Environment*, 5(1), 04018015. **2021 Best Paper Award**  
[doi:10.1061/JSWBAY.0000875](https://doi.org/10.1061/JSWBAY.0000875)
36. Christopher M. Chini\*, Lucas A. Djehdian\*, William Naggaga Lubega\*, and Ashlynn S. Stillwell<sup>†</sup>. (2018) “Virtual Water Transfers of the U.S. Electric Grid.” *Nature Energy*, 3(12), 1115–1123.  
[doi:10.1038/s41560-018-0266-1](https://doi.org/10.1038/s41560-018-0266-1)
35. Patricia A. Malinowski<sup>†</sup>, Jy S. Wu, Srinivas Pulugurtha, and Ashlynn S. Stillwell. (2018) “Green Infrastructure Retrofits and Impervious Area Reduction: Potential Improvements to Urban Stream Quality and Contribution by Property Type.” *Journal of Sustainable Water in the Built Environment*, 4(4), 04018012. **Featured as Editor’s Choice**  
[doi:10.1061/JSWBAY.0000866](https://doi.org/10.1061/JSWBAY.0000866)
34. Lauren H. Logan\* and Ashlynn S. Stillwell<sup>†</sup>. (2018) “Water Temperature Duration Curves for Thermoelectric Power Plant Mixing Zone Analysis.” *Journal of Water Resources Planning and Management*, 144(9), 04018058.  
[doi:10.1061/\(ASCE\)WR.1943-5452.0000980](https://doi.org/10.1061/(ASCE)WR.1943-5452.0000980)
33. James F. Canning\* and Ashlynn S. Stillwell<sup>†</sup>. (2018) “Nutrient Reduction in Agricultural Green Infrastructure: An Analysis of the Raccoon River Watershed.” *Water*, Special Issue on Energy and Water Sustainability: Energy Supplies in Water Exploration, Production and Delivery, 10(6), 749. **Featured on journal issue cover**  
[doi:10.3390/w10060749](https://doi.org/10.3390/w10060749)
32. Christopher M. Chini\* and Ashlynn S. Stillwell<sup>†</sup>. (2018) “The State of U.S. Urban Water: Data and the Energy-Water Nexus.” *Water Resources Research*, 54(3), 1796–1811. **Among top 10% most downloaded papers**

[doi:10.1002/2017WR022265](https://doi.org/10.1002/2017WR022265)

31. William Naggaga Lubega\* and **Ashlynn S. Stillwell**<sup>†</sup>. (2018) “Maintaining Electric Grid Reliability under Hydrologic Drought and Heat Wave Conditions.” *Applied Energy*, Special Issue on “Energy-Water-Food Nexus,” 210(1), 538–549.  
[doi:10.1016/j.apenergy.2017.06.091](https://doi.org/10.1016/j.apenergy.2017.06.091)
30. Lauren H. Logan\* and **Ashlynn S. Stillwell**<sup>†</sup>. (2018) “Probabilistic assessment of aquatic species risk from thermoelectric power plant effluent: Incorporating biology into the energy-water nexus.” *Applied Energy*, Special Issue on “Energy-Water-Food Nexus,” 210(1), 434–450.  
[doi:10.1016/j.apenergy.2017.09.027](https://doi.org/10.1016/j.apenergy.2017.09.027)
29. Reshmina William\*, Jugal Garg, and **Ashlynn S. Stillwell**<sup>†</sup>. (2017) “A game theory analysis of green infrastructure stormwater management policies.” *Water Resources Research*, Special Issue on “Socio-hydrology: Spatial and Temporal Dynamics of Coupled Human-Water Systems,” 53(9), 8003–8019. **Featured in Editor’s Highlight**  
[doi:10.1002/2017WR021024](https://doi.org/10.1002/2017WR021024)
28. **Ashlynn S. Stillwell**<sup>†</sup>, Ahmed M. Mroue, Joshua D. Rhodes, Margaret A. Cook, Joshua B. Sperling, Tyler Hussey, David Burnett, and Michael E. Webber. (2017) “Water for Energy: Systems Integration and Analysis to Address Resource Challenges.” *Current Sustainable/Renewable Energy Reports*, 4(3), 90–98.  
[doi:10.1007/s40518-017-0081-5](https://doi.org/10.1007/s40518-017-0081-5)
27. Reshmina William\* and **Ashlynn S. Stillwell**<sup>†</sup>. (2017) “Use of fragility curves to evaluate the performance of green roofs.” *Journal of Sustainable Water in the Built Environment*, 3(4), 04017010.  
[doi:10.1061/JSWBAY.0000831](https://doi.org/10.1061/JSWBAY.0000831)
26. Christopher M. Chini\*, James F. Canning\*, Kelsey L. Schreiber\*, Joshua M. Peschel<sup>†</sup>, and **Ashlynn S. Stillwell**. (2017) “The Green Experiment: Cities, Green Stormwater Infrastructure, and Sustainability.” *Sustainability*, Special Issue on Urban Sustainability and Planning Support Systems. 9(1), 105. **Featured on journal issue cover**  
[doi:10.3390/su9010105](https://doi.org/10.3390/su9010105)
25. Christopher M. Chini\*, Megan Konar, and **Ashlynn S. Stillwell**<sup>†</sup>. (2017) “Direct and indirect urban water footprints of the United States.” *Water Resources Research*, 53(1), 316–327.  
[doi:10.1002/2016WR019473](https://doi.org/10.1002/2016WR019473)
24. **Ashlynn S. Stillwell**<sup>†</sup> and Michael E. Webber. (2016) “Predicting the Specific Energy Consumption of Reverse Osmosis Desalination.” *Water*, 8(12), 601.  
[doi:10.3390/w8120601](https://doi.org/10.3390/w8120601).
23. Zachary A. Barker\*<sup>†</sup>, **Ashlynn S. Stillwell**, and Emily Z. Berglund. (2016) “Energy and water tradeoffs in the expansion of a dual water system.” *Journal of Water Resources Planning and Management*. 142(12), 05016012.  
[doi:10.1061/\(ASCE\)WR.1943-5452.0000714](https://doi.org/10.1061/(ASCE)WR.1943-5452.0000714)
22. Christopher M. Chini\*, Kelsey L. Schreiber\*, Zachary A. Barker\*, and **Ashlynn S. Stillwell**<sup>†</sup>. (2016) “Quantifying Energy and Water Savings in the U.S. Residential Sector.” *Environmental Science & Technology*. 50(17), 9003–9012.  
[doi:10.1021/acs.est.6b01559](https://doi.org/10.1021/acs.est.6b01559)

21. Reshmina William\*, Allison Goodwell, Meredith Richardson, Phong V. V. Le, Praveen Kumar<sup>†</sup>, and **Ashlynn S. Stillwell**. (2016) “An environmental cost-benefit analysis of alternative green roofing strategies.” *Ecological Engineering*. 95(1), 1–9.  
[doi:10.1016/j.ecoleng.2016.06.091](https://doi.org/10.1016/j.ecoleng.2016.06.091)
20. Zachary A. Barker\* and **Ashlynn S. Stillwell**<sup>†</sup>. (2016) “Implications of transitioning from de facto to engineered water reuse for power plant cooling.” *Environmental Science & Technology*. 50(10), 5379–5388.  
**Mentioned in *Science***  
[doi:10.1021/acs.est.5b05753](https://doi.org/10.1021/acs.est.5b05753)
19. Tyler A. DeNooyer\*, Joshua M. Peschel, Zhenxing Zhang, and **Ashlynn S. Stillwell**<sup>†</sup>. (2016) “Integrating water resources and power generation: the energy-water nexus in Illinois.” *Applied Energy*. 162(1), 363–371.  
[doi:10.1016/j.apenergy.2015.10.071](https://doi.org/10.1016/j.apenergy.2015.10.071)
18. Patricia A. Malinowski<sup>†</sup>, **Ashlynn S. Stillwell**, Jy S. Wu, and Peter M. Schwarz. (2015) “Energy-Water Nexus: Potential Energy Savings and Implications for Sustainable Integrated Water Management in Urban Areas from Rainwater Harvesting and Gray-Water Reuse.” *Journal of Water Resources Planning and Management*. Special Issue on Sustainability, 141(12), A4015003.  
[doi:10.1061/\(ASCE\)WR.1943-5452.0000528](https://doi.org/10.1061/(ASCE)WR.1943-5452.0000528)
17. **Ashlynn S. Stillwell**<sup>†</sup>. (2015) “Sustainability of Public Policy: Example from the Energy-Water Nexus.” *Journal of Water Resources Planning and Management*. Special Issue on Sustainability, 141(12), A4015001.  
[doi:10.1061/\(ASCE\)WR.1943-5452.0000522](https://doi.org/10.1061/(ASCE)WR.1943-5452.0000522)
16. **Ashlynn S. Stillwell**<sup>†</sup> and Michael E. Webber. (2014) “Geographic, technologic, and economic analysis of using reclaimed water for thermoelectric power plant cooling.” *Environmental Science & Technology*. 48(8), 4588–4595.  
[doi:10.1021/es405820j](https://doi.org/10.1021/es405820j)
15. Emily A. Grubert<sup>†</sup>, **Ashlynn S. Stillwell**, and Michael E. Webber. (2014) “Where Does Solar-Aided Seawater Desalination Make Sense? A Method for Identifying Sustainable Sites.” *Desalination*. 339(1), 10–17.  
[doi:10.1016/j.desal.2014.02.004](https://doi.org/10.1016/j.desal.2014.02.004)
14. Mary E. Clayton, **Ashlynn S. Stillwell**, and Michael E. Webber<sup>†</sup>. (2014) “Implementation of brackish groundwater desalination using wind-generated electricity: A case study of the energy-water nexus in Texas.” *Sustainability*. 6(2), 758–778.  
[doi:10.3390/su6020758](https://doi.org/10.3390/su6020758)
13. Kelly T. Sanders, Carey W. King, **Ashlynn S. Stillwell**, and Michael E. Webber<sup>†</sup>. (2013) “Clean Energy and Water: Assessment of Mexico for Improved Water Services and Renewable Energy.” *Environment, Development, and Sustainability*. 15(5), 1303–1321.  
[doi:10.1007/s10668-013-9441-5](https://doi.org/10.1007/s10668-013-9441-5)
12. **Ashlynn S. Stillwell** and Michael E. Webber<sup>†</sup>. (2013) “Evaluation of power generation operations in response to changes in surface water reservoir storage.” *Environmental Research Letters*. 8(2), 1–15.  
[doi:10.1088/1748-9326/8/2/025014](https://doi.org/10.1088/1748-9326/8/2/025014)
11. Carey W. King<sup>†</sup>, **Ashlynn S. Stillwell**, Kelly M. Twomey, and Michael E. Webber<sup>†</sup>. (2013) “Coherence Between Water and Energy Policies.” *Natural Resources Journal*. 53(1), 117–215.



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10. **Ashlynn S. Stillwell**<sup>†</sup> and Michael E. Webber. (2013) “A Novel Methodology for Evaluating Economic Feasibility of Low-Water Cooling Technology Retrofits at Power Plants.” *Water Policy*. 15(2), 292–308.  
[doi:10.2166/wp.2012.018](https://doi.org/10.2166/wp.2012.018)
9. Colin M. Beal<sup>†</sup>, **Ashlynn S. Stillwell**, Carey W. King, Stuart M. Cohen, Halil Berberoglu, Rajendra P. Bhattarai, Rhykka Connelly, Michael E. Webber, and Robert E. Hebner. (2012) “Energy Return on Investment for Algal Biofuels Production Coupled with Wastewater Treatment.” *Water Environment Research*. 84(9), 692–710.  
[doi:10.2175/106143012X13378023685718](https://doi.org/10.2175/106143012X13378023685718)
8. **Ashlynn S. Stillwell**<sup>†</sup>, Kelly M. Twomey, Rusty Osborne, David M. Greene, Dan W. Pedersen, and Michael E. Webber. (2011) “An Integrated Energy, Carbon, Water, and Economic Analysis of Reclaimed Water Use in Urban Settings: A Case Study of Austin, Texas.” *Journal of Water Reuse and Desalination*. 1(4), 208–223.  
[doi:10.2166/wrd.2011.058](https://doi.org/10.2166/wrd.2011.058)
7. Nawaf S. Alhajeri, Pearl Donohoo, **Ashlynn S. Stillwell**, Carey W. King, Mort D. Webster, Michael E. Webber<sup>†</sup>, and David T. Allen. (2011) “Using market-based dispatching with environmental price signals to reduce emissions and water use at power plants in the Texas grid.” *Environmental Research Letters*. 6(4), 1–9.  
[doi:10.1088/1748-9326/6/4/044018](https://doi.org/10.1088/1748-9326/6/4/044018)
6. **Ashlynn S. Stillwell**, Mary E. Clayton, and Michael E. Webber<sup>†</sup>. (2011) “Technical analysis of a river basin-based model of advanced power plant cooling technologies for mitigating water management challenges.” *Environmental Research Letters*. 6(3), 1–11. **Featured in journal’s “Highlights of 2011”**  
[doi:10.1088/1748-9326/6/3/034015](https://doi.org/10.1088/1748-9326/6/3/034015)
5. **Ashlynn S. Stillwell**, Carey W. King, Michael E. Webber<sup>†</sup>, Ian J. Duncan, and Amy Hardberger. (2011) “The Energy-Water Nexus in Texas.” *Ecology and Society*. 16(1), 2.  
[Available online](#)
4. **Ashlynn S. Stillwell**<sup>†</sup>, Carey W. King, and Michael E. Webber. (2010) “Desalination and Long-Haul Water Transfer as a Water Supply for Dallas, Texas: A Case Study of the Energy-Water Nexus in Texas.” *Texas Water Journal*. 1(1), 33–41.  
[doi:10.21423/twj.v1i1.1042](https://doi.org/10.21423/twj.v1i1.1042)
3. **Ashlynn S. Stillwell**<sup>†</sup>, David C. Hoppock, and Michael E. Webber. (2010) “Energy Recovery from Wastewater Treatment Plants in the United States: A Case Study of the Energy-Water Nexus.” *Sustainability*. 2(4), 945–962.  
[doi:10.3390/su2040945](https://doi.org/10.3390/su2040945)
2. Kelly M. Twomey<sup>†</sup>, **Ashlynn S. Stillwell**, and Michael E. Webber. (2010) “The unintended energy impacts of increased nitrate contamination from biofuels production.” *Journal of Environmental Monitoring*. 12(1), 218–224.  
[doi:10.1039/B913137J](https://doi.org/10.1039/B913137J)
1. Carey W. King, **Ashlynn S. Holman**, and Michael E. Webber<sup>†</sup>. (2008) “Thirst for energy.” *Nature Geoscience*. 1(5), 283–286.  
[doi:10.1038/ngeo195](https://doi.org/10.1038/ngeo195)

## Editorials and commentary in peer-reviewed journals

(PUBLICATIONS WITH ADVISED STUDENTS/POST-DOCS\* AS NOTED; CORRESPONDING AUTHOR† AS NOTED)

8. **Ashlynn S. Stillwell**†. (2021) “Sustainability for Secular and Spiritual Groups: A Framework from University and Community Education.” *Electronic Journal for Research in Science & Mathematics Education*, Special Issue on Sinai and Synapses Fellowship: Elevating the Discourse Between Science and Religion, 25(3), 54-61.  
<https://ejrsme.icrsme.com/article/view/21652>
7. Amro M. Farid†, Muhannad Alshareef, Parupkar Singh Badhessa, Chiara Boccaletti, Nelio Alessandro Azevedo Cacho, Claire-Isabelle Carlier, Amy Corriveau, Inas Khayal, Barry Liner, Joberto S. B. Martins, Farokh Rahimi, Rosaldo Rossetti, Wester C. H. Schoonenberg, **Ashlynn Stillwell**, Yin Hai Wang. (2021) “Smart city drivers and challenges in urban-mobility, health-care, and interdependent infrastructure systems.” *IEEE Potentials*, 40(1), 11–16.  
[doi:10.1109/MPOT.2020.3011399](https://doi.org/10.1109/MPOT.2020.3011399)
6. Amro M. Farid†, Muhannad Alshareef, Parupkar Singh Badhessa, Chiara Boccaletti, Nelio Alessandro Azevedo Cacho, Claire-Isabelle Carlier, Amy Corriveau, Inas Khayal, Barry Liner, Joberto S. B. Martins, Farokh Rahimi, Rosaldo Rossetti, Wester C. H. Schoonenberg, **Ashlynn Stillwell**, Yin Hai Wang. (2021) “Smart city drivers and challenges in energy and water systems.” *IEEE Potentials*, 40(1), 6–10.  
[doi:10.1109/MPOT.2020.3011378](https://doi.org/10.1109/MPOT.2020.3011378)
5. **Ashlynn S. Stillwell**†. (2021) “What the Science and Engineering World Needs Now Is Twitter.” *Journal of Sustainable Water in the Built Environment*, 7(1), 01820001.  
[doi:10.1061/JSWBAY.0000927](https://doi.org/10.1061/JSWBAY.0000927)
4. **Ashlynn S. Stillwell**†. (2019) “Editorial Perspectives: bringing the energy-water nexus home to promote conservation and efficiency.” *Environmental Science: Water Research & Technology*, 5(8), 1358-1359.  
[doi:10.1039/c9ew90034a](https://doi.org/10.1039/c9ew90034a)
3. Robert B. Sowby†, Steven J. Burian, Christopher M. Chini\*, and **Ashlynn S. Stillwell**. (2019) “Data Challenges and Solutions in Energy-for-Water: Experience From Two Recent Studies.” *Journal – American Water Works Association*. 111(2), 28–33.  
[doi:10.1002/awwa.1233](https://doi.org/10.1002/awwa.1233)
2. Joseph R. Kasprzyk†, Rebecca M. Smith, **Ashlynn S. Stillwell**, Kaveh Madani, David Ford, Daene McKinney, and Soroosh Sorooshian. (2018) “Defining the Role of Water Resources Systems Analysis in a Changing Future.” *Journal of Water Resources Planning and Management*. 144(12), 01818003.  
[doi:10.1061/\(ASCE\)WR.1943-5452.0001010](https://doi.org/10.1061/(ASCE)WR.1943-5452.0001010)
1. Christopher M. Chini\*† and **Ashlynn S. Stillwell**. (2016) “Where Are All the Data? The Case for a Comprehensive Water and Wastewater Utility Database.” *Journal of Water Resources Planning and Management*. 143(3), 01816005.  
[doi:10.1061/\(ASCE\)WR.1943-5452-0000739](https://doi.org/10.1061/(ASCE)WR.1943-5452-0000739)

## Invited talks

70. “The Water Sector’s Role in Energy Sustainability.” Invited Keynote at Illinois Wastewater Professionals Conference, Springfield, IL, USA, April 25, 2022.

69. “Water and Energy at the Residential Scale: Fine-Resolution Data Collection, Use, and Insights.” U.S. Environmental Protection Agency / Environmental and Water Resources Institute Premise Plumbing Modeling webinar, virtual, April 25, 2022.
68. “Water-Energy Nexus at the Residential Scale: Meter-Level Opportunities and Challenges.” NSF Hot Water Workshop, virtual, February 11, 2022.
67. “Learning from Smart Meter Data: Trends, Drivers, and End Uses of Electricity.” Zhejiang University International Campus annual workshop, virtual, January 7, 2022.
66. “Food-Energy-Water in U.S. Cities: Leveraging Data for Sustainability.” National Taiwan University Food-Energy-Water Workshop, virtual, December 6, 2021.
65. “Quantifying water and energy flows in the U.S. residential environment.” Chinese Society for Industrial Ecology seminar, virtual, November 22, 2021.
64. “Putting the “me” in meter: Smart meter data and the residential energy-water nexus.” Interdisciplinary Training, Education, and Research in Food-Energy-Water Systems (InTERFEWS) program seminar, Colorado State University, Fort Collins, CO, USA, November 17, 2021.
63. “A U.S. Perspective on Urban Metabolism: Moving Toward Smarter Cities.” Technische Universität Berlin ide3a Smart Cities short course, virtual, November 12, 2021.
62. “Water We Doing at Home? Water and Energy in the Residential Environment.” Energy, Environmental & Chemical Engineering Seminar, Washington University in St. Louis, St. Louis, MO, USA, October 8, 2021.
61. “Human Water Systems Across Scales: From the Household to the City.” Invited presentation at International Symposium on Water Systems Operations, virtual, September 2, 2021.
60. “Smarter Cities and the Energy-Water Nexus.” Current Third Coast Seminar Series, Chicago, IL, USA, July 28, 2021.
59. “At Home with the Water-Energy Nexus: Water and Energy in the Residential Environment.” Engineering Systems and Environment Graduate Colloquium Distinguished Seminar, Engineering Systems and Environment, University of Virginia, Charlottesville, VA, USA, March 12, 2021.
58. “The Role of Metering in Smart Water” (in collaboration with Zachary Barkjohn, Xylem Inc.). Chicago Chapter EWRI Technical Workshop Series, Chicago, IL, USA, February 24, 2021.
57. “Water We Doing at Home? Water and Energy in the Residential Environment.” Environmental and Water Resources Engineering Seminar, Civil and Environmental Engineering, University of Massachusetts Amherst, Amherst, MA, USA, February 19, 2021.
56. “Using Residential Water Data for Customized Efficiency and Conservation Recommendations.” Invited presentation at American Institute of Chemical Engineers 3rd Annual Water Conference, virtual, December 2, 2020.
55. “Data-Driven Sustainable Cities: Energy and Water in the Urban Environment.” Biomedical, Biological, and Chemical Engineering Department Seminar, University of Missouri, Columbia, MO, USA, December 1, 2020.

54. “Context for Residential Water Use: Customizing Conservation and Efficiency Recommendations.” Contextual Engineering Workshop, University of Illinois Urbana-Champaign, Urbana, IL, USA, July 29, 2020.
53. “Analyzing the Economic Value of Thermal Power Plant Cooling Water.” 2nd Workshop on Water-Energy-Food Nexus, Public University of Navarre, Pamplona, Spain, June 3, 2020.
52. “Energy, Water, and “Smart” Cities: Learning from Data (or lack thereof).” Civil and Environmental Engineering Department Seminar, Carnegie Mellon University, Pittsburgh, PA, USA, April 24, 2020.
51. “Historic Data for an Uncertain Future: Sustainable Management of Water, Energy, and Food.” Arab-American Frontiers of Science, Engineering, and Medicine Symposium, Cairo, Egypt, November 17, 2019.
50. “There’s No Such Thing as Luck.” Invited Keynote at U.S. Army Engineer Research and Development Center Women’s Symposium, Construction Engineering Research Laboratory, Champaign, IL, USA, April 24, 2019.
49. “Defying Engineering Boundaries.” Invited Keynote at Engineering Open House, University of Illinois Urbana-Champaign, Urbana, IL, USA, March 8, 2019.
48. “Water, Energy, and the Built Environment: Resource Links at the City and Household Scales.” Civil and Environmental Engineering Seminar, University of Iowa, Iowa City, IA, USA, November 30, 2018.
47. “Greening the Urban Environment: Understanding Green Infrastructure Performance.” Civil and Materials Engineering Department Seminar, University of Illinois at Chicago, Chicago, IL, USA, November 9, 2018.
46. “Energy/Water Conservation and Efficiency.” University of Illinois Solar Decathlon Team, Urbana, IL, USA, October 11, 2018.
45. “U.S. Urban Water and its Role in Energy Sustainability.” Institute for Sustainability, Energy, and Environment Congress *Sustainable Cities*, University of Illinois Urbana-Champaign, Urbana, IL, USA, October 4, 2018.
44. “Energy and Water Sustainability in Cities.” National Socio-Environmental Synthesis Center, University of Maryland, Annapolis, MD, USA, March 6, 2018.
43. “Analyzing the Energy-Water Nexus in the Built Environment.” Association of Environmental Engineering and Science Professors Workshop, Purdue University, West Lafayette, IN, USA, February 2, 2018.
42. “Sustainability in Research and Policy: or “A scientist goes to Washington” ...” Keynote at Sustainability and Science Policy Workshop, University of Illinois Urbana-Champaign, Urbana, IL, USA, September 21, 2017.
41. “Water for Sustainable Development.” Invited panel at World Environmental and Water Resources Congress, American Society of Civil Engineers, Environmental and Water Resources Institute, Sacramento, CA, USA, May 23, 2017.
40. “Framing the Food-Energy-Water Nexus.” Infrastructure and Environmental Management Systems Program Seminar, University of North Carolina, Charlotte, NC, USA, March 23, 2017.

39. "Exploring the Energy-Water Nexus in Urban Environments." Northwestern University, Environmental Engineering and Science seminar, Evanston, IL, USA, January 6, 2017.
38. "Energy and water sustainability in urban environments." Missouri University of Science and Technology, Environmental Research Center seminar, Rolla, MO, USA, October 21, 2016.
37. "Energy and Water in a Changing World." Association of Professional Energy Consultants, seminar, Normal, IL, USA, October 4, 2016.
36. "Water Energy Nexus." Invited panel at World Environmental and Water Resources Congress, American Society of Civil Engineers, Environmental and Water Resources Institute, West Palm Beach, FL, USA, May 25, 2016.
35. "The Energy-Water Nexus and the "New" Environmental Engineer." Association of Environmental Engineering and Science Professors, NSF-AEESP Grand Challenges Workshop, Rice University, Houston, TX, USA, April 1, 2016.
34. "The Energy-Water Nexus: A Holistic Perspective." Pacific Gas & Electric, Water Conservation Showcase, San Francisco, CA, USA, March 22, 2016.
33. "Sustainable Cities and the Energy-Water Nexus." Indian Institute of Science, seminar, Bangalore, Karnataka, India, March 11, 2016.
32. "Energy and Water: Analysis of Interrelated Systems." University of North Carolina at Chapel Hill, seminar, Chapel Hill, NC, USA, January 28, 2016.
31. "The Water-Energy Nexus and the Built Environment." University of Kansas, Design Challenges and Innovation at the Nexus of Food + Energy + Water workshop, Lawrence, KS, USA, January 21, 2016.
30. "Water and Electricity: Multi-scale systems analysis of related resources." Pacific Northwest National Laboratory, Joint Global Change Research Institute, College Park, MD, USA, October 30, 2015.
29. "Multi-Scale Systems Analysis and the Energy-Water Nexus." Institute for Sustainability, Energy, and Environment Congress *Water Planet, Water Crisis?*, University of Illinois Urbana-Champaign, Urbana, IL, USA, September 15, 2015.
28. "Water, Energy, and a Sustainable Future: An Interdisciplinary Approach." Engineering Sustainability Conference invited panel, University of Pittsburgh and Carnegie Mellon University, Pittsburgh, PA, USA, April 21, 2015.
27. "The Energy-Water Nexus in a Changing World." Champaign County Sustainability Network lunch, Champaign, IL, USA, April 16, 2015.
26. "Sustainability in a Changing World: Energy, Water, and the Environment." Keynote at Environmental Engineering and Science Symposium, University of Illinois Urbana-Champaign, Champaign, IL, USA, April 9, 2015.
25. "Managing the Energy-Water Nexus in Urban Environments." U.S. Army Corps of Engineers Construction Engineering Research Laboratory seminar, Champaign, IL, USA, April 8, 2015.

24. "The Water/Energy Nexus: Sample Interdisciplinary Systems Analysis." Champaign-Urbana Hydraulic Engineering Luncheon, Urbana, IL, USA, November 20, 2014.
23. "Civil Engineering and Interdisciplinary Systems Analysis: The Energy-Water Nexus as an Example." Civil, Architectural, and Environmental Engineering Seminar, Illinois Institute of Technology, Chicago, IL, USA, November 11, 2014.
22. "Infrastructure and the Energy-Water Nexus: Managing Related Resources." Infrastructure and Environmental Management Systems Program Seminar, University of North Carolina, Charlotte, NC, USA, October 28, 2014.
21. "The Energy-Water Nexus and the Role of Civil Engineers: Interdisciplinary Systems Analysis." Civil, Environmental, and Architectural Engineering Joint Hydrologic and Environmental Engineering Seminar, University of Colorado Boulder, Boulder, CO, USA, September 26, 2014.
20. "Infrastructure in a Changing Climate: The Energy-Water Nexus and Infrastructure Vulnerability." Atmospheric Science Colloquia, University of Illinois Urbana-Champaign, Urbana, IL, USA, September 17, 2014.
19. "Energy's Role in National Water Policy." Elements of National Water Policy: Understanding the Complexity panel, AGU Science Policy Conference, Washington, D.C., USA, June 17, 2014.
18. "Water and Energy." Panel discussion at World Water Forum Symposium, World Environmental and Water Resources Congress, Portland, OR, USA, June 2, 2014.
17. "Sustainability and the Energy-Water Nexus." U.S. Green Building Council Student Sustainability Initiatives Symposium, Urbana, IL, USA, April 5, 2014.
16. "Systems Analysis of the Energy-Water Nexus: Engineering, Policy, and Economy." Program for Environmental and Resource Economics, University of Illinois Urbana-Champaign, Urbana, IL, USA, April 1, 2014.
15. "Systems Analysis of the Energy-Water Nexus: Integrating Resources, Policy, and Economics." Argonne National Laboratory, Argonne, IL, USA, February 13, 2014.
14. "Energy, Water, and Policy: Supporting Decision-Making with Systems Analysis." Illinois State Geological Survey, Champaign, IL, USA, February 3, 2014.
13. "Water: Life and Death." Earth Day Social Justice Feature, First United Methodist Church, Austin, TX, USA, April 21, 2013.
12. "Water-Energy Tradeoffs." G'Day USA United States – Australia Dialogue: Practical Solutions for Managing the Energy-Water Nexus, San Francisco, CA, USA, January 14, 2013.
11. "Water's Role in Thermoelectric Power Generation: Texas and Beyond." American Bar Association Section of the Environment, Energy, and Resources, 20th Section Fall Meeting, Austin, TX, USA, October 11, 2012.
10. "Energy-Water Nexus in Texas." Austin Power Lunch, Austin, TX, USA, April 10, 2012.
9. "Energy-Water Nexus: Energy for Water." Water Law, Texas Tech University School of Law (online guest lecture), April 2, 2012.

8. “The Nexus of Energy & Water.” Texas Rainwater Catchment Association Annual Meeting, San Marcos, TX, USA, March 31, 2012.
7. “Water Use in Thermoelectric Power Generation and Drought Implications.” The University of Texas at Austin Energy Forum, Austin, TX, USA, February 3, 2012.
6. “The Nexus of Energy & Water.” Rainwater Revival, Dripping Springs, TX, USA, October 8, 2011.
5. “The Energy-Water Nexus in Texas: Water and energy policies.” University of Technology Sydney, Sydney, NSW, Australia, December 8, 2010.
4. “The Energy-Water Nexus in Texas: Water and energy policies.” The University of Melbourne, Melbourne, VIC, Australia, December 6, 2010.
3. “The Energy-Water Nexus in Texas: Water and energy policies.” Australian National University, Canberra, ACT, Australia, December 3, 2010.
2. “Energy-Water Nexus in Texas.” Water Wi\$e, Metropolitan Energy Center, Kansas City, MO, USA, December 16, 2009.
1. “Oil and Water: Balancing Key Resources” World Affairs Council Student Energy Summit, Houston, TX, USA, February 10, 2009.

## Invited legislative and governmental testimony

“The Energy-Water Nexus.” Senate Natural Resources Committee Hearing, Texas Legislature, Austin, TX, USA, September 30, 2008.

“Water and Nuclear Power.” Brazos G Regional Water Planning Group Public Meeting, Waco, TX, USA, June 4, 2008.

## Other publications

### BOOK CHAPTERS

2. **Ashlynn S. Stillwell.** (2018) “Water Conservation and Efficiency in Buildings,” in Handbook of Energy Efficiency in Buildings: A Life Cycle Approach, Francesco Asdrubali and Umberto Desideri eds., Elsevier, Butterworth-Heinemann, Oxford, UK. ISBN: 978-0-12-812817-6.
1. **Ashlynn S. Stillwell** and Michael E. Webber. (2014) “Economic Benefits of Alternative Cooling Technologies,” in Thermal Power Plant Cooling: Context and Engineering, Carey W. King ed., American Society of Mechanical Engineers, New York, NY. ISBN: 978-0-7918-6025-0.

### PEER-REVIEWED CONFERENCE PROCEEDINGS

(PUBLICATIONS WITH ADVISED STUDENTS/POST-DOCS\* AS NOTED)

12. Jacob Kravits, Kyri Baker, Joseph R. Kasprzyk, and **Ashlynn S. Stillwell.** (2022) “Assessing Trade-offs Between Water, Emissions, and Cost in Multi-objective Optimal Power Flow.” *Proceedings of the 2022 IEEE PES General Meeting*, July 17–21, 2022, Denver, CO, USA.

11. Lauren H. Logan\*, Nancy C. Emery, and **Ashlynn S. Stillwell**. (2014) “The Science Not Yet Behind Wetland Policy: Ecology, Hydrology, Public Perception and Conservation.” *Proceedings of the 2014 World Environmental and Water Resources Congress*, June 1–5, 2014, Portland, OR, USA.
10. Margaret A. Cook, **Ashlynn S. Stillwell**, Carey W. King, and Michael E. Webber. (2013) “Alternative Water Sources for Hydraulic Fracturing in Texas.” *Proceedings of the 2013 World Environmental and Water Resources Congress*, May 19–23, 2013, Cincinnati, OH, USA.
9. **Ashlynn S. Stillwell** and Michael E. Webber. (2012) “Value of Reservoir Storage for Resilient Power Plant Cooling and Basin-Wide Water Availability.” *Proceedings of the 2012 ASME International Mechanical Engineering Congress and Exposition*, November 9–15, 2012, Houston, TX, USA.
8. Mary E. Clayton, **Ashlynn S. Stillwell**, and Michael E. Webber. (2011) “Implementation of Brackish Groundwater Desalination Using Wind-Generated Electricity as a Proxy for Energy Storage: A Case Study of the Energy-Water Nexus in Texas.” *Proceedings of the 2011 ASME International Mechanical Engineering Congress and Exposition*, November 11–17, 2011, Denver, CO, USA.
7. **Ashlynn S. Stillwell**, Kelly M. Twomey, Michael E. Webber, Rusty Osborne, David M. Greene, and Dan W. Pedersen. (2011) “An Integrated Energy, Carbon, and Economic Analysis of Reclaimed Water Use in Austin, Texas.” *Proceedings of the 2011 World Environmental and Water Resources Congress*, May 22–26, 2011, Palm Springs, CA, USA.
6. **Ashlynn S. Stillwell**, Mary E. Clayton, Michael E. Webber, David T. Allen, and Mort Webster. (2010) “A River Basin-Based Model of Advanced Power Plant Cooling Technologies for Mitigating Water Management Challenges.” *Proceedings of the 2010 AIChE Annual Meeting*, November 7–12, 2010, Salt Lake City, UT, USA.
5. Mary E. Clayton, **Ashlynn S. Stillwell**, and Michael E. Webber. (2010) “Model of Implementing Advanced Power Plant Cooling Technologies to Mitigate Water Management Challenges in Texas River Basins.” *Proceedings of the 2010 ASME International Mechanical Engineering Congress and Exposition*, November 12–18, 2010, Vancouver, British Columbia, Canada.
4. **Ashlynn S. Stillwell** and Michael E. Webber. (2010) “Feasibility of Wind Power for Brackish Groundwater Desalination: A Case-Study of the Energy-Water Nexus in Texas.” *Proceedings of the 2010 ASME Energy Sustainability Conference*, May 17–22, 2010, Phoenix, AZ, USA.
3. **Ashlynn S. Stillwell** and Michael E. Webber. (2010) “Water Conservation and Reuse: A Case Study of the Energy-Water Nexus in Texas.” *Proceedings of the 2010 World Environmental and Water Resources Congress*, May 16–20, 2010, Providence, RI, USA.
2. Kelly M. Twomey, **Ashlynn S. Stillwell**, and Michael E. Webber. (2009) “The Water Quality and Energy Impacts of Biofuels.” *Proceedings of the 2009 ASME Energy Sustainability Conference*, July 19–23, 2009, San Francisco, CA, USA.
1. **Ashlynn S. Stillwell**, Carey W. King, and Michael E. Webber. (2009) “Desalination and Long-Haul Water Transfer: A Case Study of the Energy-Water Nexus in Texas.” *Proceedings of the 2009 ASME Energy Sustainability Conference*, July 19–23, 2009, San Francisco, CA, USA.



#### CONFERENCE PRESENTATIONS AND POSTERS

(PUBLICATIONS WITH ADVISED STUDENTS/POST-DOCS\* AS NOTED)

67. Laura C. Gray\*, Lei Zhao, and **Ashlynn S. Stillwell**. (2021) "Urban Climate Modeling to Quantify Runoff Reduction from Ground-Based Green Stormwater Infrastructure Implementation." 2021 American Geophysical Union Fall Meeting, December 13–17, 2021, New Orleans, LA, USA.
66. Jacob Kravits, Joseph R. Kasprzyk, Kyri Baker, and **Ashlynn S. Stillwell**. (2021) "Identifying System and Generator Vulnerabilities Through a Sensitivity Analysis of a Multi-Objective Optimal Power Flow Formulation." 2021 American Geophysical Union Fall Meeting, December 13–17, 2021, New Orleans, LA, USA.
65. Allisa G. Hastie\*, Victoria V. Otrubina\*, and **Ashlynn S. Stillwell**. (2021) "A Spatial Analysis to Identify Opportunities for Water Reuse in the United States." 2021 American Geophysical Union Fall Meeting, December 13–17, 2021, New Orleans, LA, USA.
64. Jorge E. Pesantez\*, Grace E. Wackerman\*, and **Ashlynn S. Stillwell**. (2021) "Smart Meter Data to Analyze Electricity Demand from Single- and Multi-family Consumers in a Diverse Urban Environment." 2021 American Geophysical Union Fall Meeting, December 13–17, 2021, New Orleans, LA, USA.
63. Allisa G. Hastie\* and **Ashlynn S. Stillwell**. (2021) "Geographic suitability analysis of non-potable reclaimed water use in the United States." 2021 World Environmental and Water Resources Congress, June 7–11, 2021, online.
62. Laura C. Gray\*, Lei Zhao, and **Ashlynn S. Stillwell**. (2020) "Validating runoff of the Community Earth System Model (CESM) CMIP6 simulation against surface observation and reanalysis data." 2020 American Geophysical Union Fall Meeting, December 1–17, 2020, online.
61. Gabrielle M. Bethke\* and **Ashlynn S. Stillwell**. (2020) "Meter to End-Use: Disaggregating Residential Water Data." International Environmental Modelling and Software Society Conference, September 14–18, 2020, Brussels, Belgium.
60. Grace E. Wackerman\* and **Ashlynn S. Stillwell**. (2020) "Using Socio-Economic Data to Predict Electricity Consumption for Multi-Family Homes in Chicago." 2020 Power and Energy Conference at Illinois, February 27–28, 2020, Champaign, IL, USA.
59. Christopher M. Chini, Lauren E. Excell\* and **Ashlynn S. Stillwell**. (2019) "Availability and Prevalence of Energy-for-Water Data: A Critical Review of the Urban Energy-Water Nexus." 2019 American Geophysical Union Fall Meeting, December 9–13, 2019, San Francisco, CA, USA.
58. Joseph Bongungu\*, Paul W. Francisco, Stacy L. Gloss, and **Ashlynn S. Stillwell**. (2019) "A Data-Driven Approach to Quantifying Energy for Residential Water Heating in Urban Areas." 2019 American Geophysical Union Fall Meeting, December 9–13, 2019, San Francisco, CA, USA.
57. Christopher M. Chini\*, Lucas A. Djehdian\*, William N. Lubega\*, and **Ashlynn S. Stillwell**. (2019) "Electrified Water: Virtual Water Transfers of Electricity" 2019 World Environmental and Water Resources Congress, May 19–23, 2019, Pittsburgh, PA, USA.
56. Trevor L. Auth\*, Grace E. Wackerman\*, Marcelo H. Garcia, and **Ashlynn S. Stillwell**. (2019) "Low-Head Hydroelectric Power Generation as a Reserve Power Source for Wind Turbines: A Northeastern Illinois Case Study." 2019 World Environmental and Water Resources Congress, May 19–23, 2019, Pittsburgh, PA, USA.

55. Gabrielle M. Bethke\*, Reshmina William\*, and **Ashlynn S. Stillwell**. (2019) “Using Fragility Curves to Assess Urban Flood Mitigation Performance of Permeable Pavement.” 2019 World Environmental and Water Resources Congress, May 19–23, 2019, Pittsburgh, PA, USA.
54. Christopher M. Chini\* and **Ashlynn S. Stillwell**. (2018) “Challenges and Opportunities of Multi-Scale Urban Energy and Water Data.” 2018 American Geophysical Union Fall Meeting, December 10–14, 2018, Washington, D.C., USA.
53. Brendan Purcell, Zachary A. Barker\*, Joseph R. Kasprzyk, and **Ashlynn S. Stillwell**. (2018) “Scenario Analysis of Downstream Flow Impacts from Reclaimed Water in Two Distinct Regions.” 2018 American Geophysical Union Fall Meeting, December 10–14, 2018, Washington, D.C., USA.
52. Allisa G. Hastie\*, Christopher M. Chini\*, and **Ashlynn S. Stillwell**. (2018) “The Challenges of Integrating Urban Water and Energy Data.” 2018 World Environmental and Water Resources Congress, June 3–7, 2018, Minneapolis, MN, USA.
51. Joseph R. Kasprzyk, **Ashlynn S. Stillwell**, Zachary A. Barker\*, and Brendan Purcell. (2018) “Linking reclaimed water consumption with quantitative downstream flow impacts.” 2018 World Environmental and Water Resources Congress, June 3–7, 2018, Minneapolis, MN, USA.
50. Lucas A. Djehdian\*, Christopher M. Chini\*, Landon Marston, Megan Konar and **Ashlynn S. Stillwell**. (2018) “Water Resource Stress of U.S. Cities: A Food-Energy-Water Nexus Study.” 2018 World Environmental and Water Resources Congress, June 3–7, 2018, Minneapolis, MN, USA.
49. Lauren H. Logan\*, Anurag A. Chandak, and **Ashlynn S. Stillwell**. (2018) “Estimating Water Consumption from Thermoelectric Power Generation.” 2018 World Environmental and Water Resources Congress, June 3–7, 2018, Minneapolis, MN, USA.
48. Reshmina William\* and **Ashlynn S. Stillwell**. (2018) “The impact of back-to-back rainfall events on green infrastructure reliability.” 2018 World Environmental and Water Resources Congress, June 3–7, 2018, Minneapolis, MN, USA.
47. James F. Canning\* and **Ashlynn S. Stillwell**. (2018) “Quantifying Socioeconomic Co-Benefits of Green Stormwater Infrastructure.” 2018 World Environmental and Water Resources Congress, June 3–7, 2018, Minneapolis, MN, USA.
46. Christopher M. Chini\* and **Ashlynn S. Stillwell**. (2018) “Facilitating Urban Water Transitions through Open Data.” 2018 World Environmental and Water Resources Congress, June 3–7, 2018, Minneapolis, MN, USA.
45. Gabrielle M. Bethke\*, Reshmina William\*, and **Ashlynn S. Stillwell**. (2018) “Runoff Analysis in Rain Gardens with Varying Soil Parameters.” 2018 World Environmental and Water Resources Congress, June 3–7, 2018, Minneapolis, MN, USA.
44. Grace E. Wackerman\*, William N. Lubega, and **Ashlynn S. Stillwell**. (2018) “The Effect of Cooling Water Constraints on Loss of Load Probability.” 2018 Power and Energy Conference at Illinois, February 22–23, 2018, Champaign, IL, USA. **Best Poster Award**
43. Christopher M. Chini\* and **Ashlynn S. Stillwell**. (2017) “Measure for Measure: Urban Water and Energy.” 2017 American Geophysical Union Fall Meeting, December 11–15, 2017, New Orleans, LA, USA.

42. Reshmina William\*, Jugal Garg, and **Ashlynn S. Stillwell**. (2017) "Using game theory to analyze green stormwater infrastructure implementation policies." 2017 American Geophysical Union Fall Meeting, December 11–15, 2017, New Orleans, LA, USA.
41. Reshmina William\* and **Ashlynn S. Stillwell**. (2017) "Addressing Uncertainty in Green Infrastructure Decision-Making: Fragility Curves as a Policy Tool." 2017 World Environmental and Water Resources Congress, May 21–25, 2017, Sacramento, CA, USA.
40. William Naggaga Lubega\* and **Ashlynn S. Stillwell**. (2017) "Hedging Thermal Power Plant Cooling Water Risk with Financial Instruments." 2017 World Environmental and Water Resources Congress, May 21–25, 2017, Sacramento, CA, USA.
39. Lauren H. Logan\* and **Ashlynn S. Stillwell**. (2017) "Temperature Duration Curves and the Energy-Water Nexus." 2017 World Environmental and Water Resources Congress, May 21–25, 2017, Sacramento, CA, USA.
38. Christopher M. Chini\* and **Ashlynn S. Stillwell**. (2017) "Much Ado About Data: A Need for a Water Utility Database." 2017 World Environmental and Water Resources Congress, May 21–25, 2017, Sacramento, CA, USA.
37. William Naggaga Lubega\* and **Ashlynn S. Stillwell**. (2016) "Drought and Heat Wave Impacts on Electricity Grid Reliability in Illinois." 2016 American Geophysical Union Fall Meeting, December 12–16, 2016, San Francisco, CA, USA.
36. Reshmina William\*, Allison Goodwell, Meredith Richardson, Phong V. V. Le, Praveen Kumar, and **Ashlynn S. Stillwell**. (2016) "An environmental cost-benefit analysis of alternative green roofing strategies." 2016 American Geophysical Union Fall Meeting, December 12–16, 2016, San Francisco, CA, USA.
35. Zachary A. Barker\*, Lucas A. Djehdian\*, and **Ashlynn S. Stillwell**. (2016) "Utilizing reclaimed water at power plants in the Chicago Area." Illinois Water Conference, October 26–27, 2016, Urbana, IL, USA. **Best Student Poster Award, Runner Up**
34. Reshmina William\* and **Ashlynn S. Stillwell**. (2016) "Investigating green roof embedded energy: An energy-water nexus perspective." Illinois Water Conference, October 26–27, 2016, Urbana, IL, USA.
33. Lauren H. Logan\*, Rohini S. Gupta\*, and **Ashlynn S. Stillwell**. (2016) "Quantifying economic tradeoffs between thermoelectric power generation and aquatic ecosystem stability." Ohio River Basin Consortium for Research and Education Symposium, September 27–29, 2016, Youngstown, OH, USA. **Second Place Student Presentation**
32. **Ashlynn S. Stillwell**. (2016) "Water, Sanitation, and Religion: Sustainability in Religious Tradition and Practice." Oxford Symposium on Population, Migration, and the Environment, August 1–2, 2016, Oxford, UK.
31. Christopher M. Chini\* and **Ashlynn S. Stillwell**. (2016) "Social Indicators and Embedded Energy in the Urban Water Cycle." American Water Works Association Annual Conference & Exposition, June 19–22, 2016, Chicago, IL, USA.
30. Christopher M. Chini\*, Kelsey L. Schreiber\*, Zachary A. Barker\*, and **Ashlynn S. Stillwell**. (2016) "The Residential Energy-Water Nexus: A Cost Abatement Curve Analysis." 2016 World Environmental and Water Resources Congress, May 22–26, 2016, West Palm Beach, FL, USA. **Winner of Best Student Presentation Award in Sustainability**

29. William N. Lubega\* and **Ashlynn S. Stillwell**. (2016) “Maintaining Electric Grid Reliability Under Drought Conditions.” 2016 World Environmental and Water Resources Congress, May 22–26, 2016, West Palm Beach, FL, USA.
28. Zachary A. Barker\* and **Ashlynn S. Stillwell**. (2016) “Watershed Dynamics of Consumptive Water Reuse for Power Plant Cooling.” 2016 World Environmental and Water Resources Congress, May 22–26, 2016, West Palm Beach, FL, USA.
27. Reshmina William\* and **Ashlynn S. Stillwell**. (2016) “Characterizing the Performance and Reliability of a Green Roof in Response to Rainfall Variability.” 2016 World Environmental and Water Resources Congress, May 22–26, 2016, West Palm Beach, FL, USA.
26. Lauren H. Logan\* and **Ashlynn S. Stillwell**. (2016) “Quantifying Economic Tradeoffs Between Thermoelectric Power Generation and Aquatic Ecosystem Stability.” 2016 World Environmental and Water Resources Congress, May 22–26, 2016, West Palm Beach, FL, USA.
25. Lucas A. Djehdian\*, Zachary A. Barker\*, and **Ashlynn S. Stillwell**. (2016) “Quantifying De Facto Water Reuse in the Greater Chicago Area.” 2016 World Environmental and Water Resources Congress, May 22–26, 2016, West Palm Beach, FL, USA.
24. Kelsey L. Schreiber\*, Christopher M. Chini\*, Zachary A. Barker\*, and **Ashlynn S. Stillwell**. (2016) “A Cost Abatement Analysis of Appliance and Fixture Upgrades in an Average Residential Home.” 2016 World Environmental and Water Resources Congress, May 22–26, 2016, West Palm Beach, FL, USA.
23. Rohini S. Gupta\*, Lauren H. Logan\*, and **Ashlynn S. Stillwell**. (2016) “Thermal Pollution Impacts on Aquatic Ecosystems: A Case Study of Power Generation and Ohio River Fish Species.” 2016 World Environmental and Water Resources Congress, May 22–26, 2016, West Palm Beach, FL, USA.
22. Christopher M. Chini\*, Kelsey L. Schreiber\*, Zachary A. Barker\*, and **Ashlynn S. Stillwell**. (2015) “Characterizing Synergistic Water and Energy Efficiency at the Residential Scale Using a Cost Abatement Curve Approach.” 2015 American Geophysical Union Fall Meeting, December 14–18, 2015, San Francisco, CA, USA.
21. Reshmina William\* and **Ashlynn S. Stillwell**. (2015) “Reliability Analysis of a Green Roof Under Different Storm Scenarios.” 2015 American Geophysical Union Fall Meeting, December 14–18, 2015, San Francisco, CA, USA.
20. Lauren H. Logan\*, Zachary A. Barker\*, and **Ashlynn S. Stillwell**. (2015) “Novel Risk Assessment for Impact of Thermoelectric Power Plant Effluent on Aquatic Species.” 2015 World Environmental and Water Resources Congress, May 17–21, 2015, Austin, TX, USA.
19. Zachary A. Barker\*, **Ashlynn S. Stillwell**, and Emily Berglund. (2015) “Expansion of reclaimed water networks and the effect on pumping energy.” 2015 World Environmental and Water Resources Congress, May 17–21, 2015, Austin, TX, USA.
18. Patricia A. Malinowski, **Ashlynn S. Stillwell**, Jy S. Wu, and Peter M. Schwarz. (2015) “The Energy-Water Nexus: Potential Energy Savings from Rainwater Harvesting and Gray Water Reuse and Implications for Sustainable Integrated Water Management in Urban Areas.” 2015 World Environmental and Water Resources Congress, May 17–21, 2015, Austin, TX, USA.
17. Tyler A. DeNooyer\*, Joshua M. Peschel, and **Ashlynn S. Stillwell**. (2015) “Integrating water resources and power generation: the energy-water nexus in Illinois.” 2015 World Environmental and Water Resources

Congress, May 17–21, 2015, Austin, TX, USA.

16. Christopher Chini, Joshua M. Peschel, and **Ashlynn S. Stillwell**. (2015) “An Analysis of the Green Infrastructure Policy and Feedback Cycle.” 2015 World Environmental and Water Resources Congress, May 17–21, 2015, Austin, TX, USA.
15. Tyler A. DeNooyer\* and **Ashlynn S. Stillwell**. (2014) “Integrating water resources and power generation: the energy-water nexus in Illinois.” 2014 Illinois Water Conference, October 14–15, 2014, Urbana, IL, USA.
14. Zachary A. Barker\*, Lauren H. Logan\*, and **Ashlynn S. Stillwell**. (2014) “Quantifying risk of once-through cooling systems at power plants.” 2014 Illinois Water Conference, October 14–15, 2014, Urbana, IL, USA.
13. Lauren H. Logan\* and **Ashlynn S. Stillwell**. (2014) “The Energy-Water Nexus: Thermoelectric Power Plants and Aquatic Ecology.” 2014 Illinois Water Conference, October 14–15, 2014, Urbana, IL, USA.
12. **Ashlynn S. Stillwell** and Clark W. Bullard. (2014) “Estimating Water Consumption from Open-Loop Power Plant Cooling.” 2014 Illinois Water Conference, October 14–15, 2014, Urbana, IL, USA.
11. **Ashlynn S. Stillwell** and Michael E. Webber. (2014) “Analysis of Factors Influencing the Suitability of Reclaimed Water Use for Power Plant Cooling.” 2014 World Environmental and Water Resources Congress, June 1–5, 2014, Portland, OR, USA.
10. **Ashlynn S. Stillwell** and Michael E. Webber. (2013) “Feasibility of Using Reclaimed Water for Thermoelectric Power Plant Cooling.” 2013 AIChE Annual Meeting, November 3–8, 2013, San Francisco, CA, USA.
9. Kelly T. Sanders, **Ashlynn S. Stillwell**, Carey W. King, and Michael E. Webber. (2012) “Clean Energy and Water: Assessment of Mexico for Improved Water Services with Renewable Energy.” 2012 ASME International Mechanical Engineering Congress and Exposition, November 9–15, 2012, Houston, TX, USA.
8. Margaret A. Cook, **Ashlynn S. Stillwell**, and Michael E. Webber. (2012) “Alternative Sources of Water for Hydraulic Fracturing in Texas.” 2012 ASME Energy Sustainability Conference, July 23–26, 2012, San Diego, CA, USA.
7. **Ashlynn S. Stillwell** and Michael E. Webber. (2012) “Thermal Discharge Implications for Drought and Heat Wave Resiliency of Thermoelectric Power Plants.” 2012 ASME Energy Sustainability Conference, July 23–26, 2012, San Diego, CA, USA.
6. **Ashlynn S. Stillwell** and Michael E. Webber. (2012) “Reclaimed Water for Power Plant Cooling: What Do We Know and Where Could We Go?” 2012 World Environmental and Water Resources Congress, May 20–24, 2012, Albuquerque, NM, USA.
5. **Ashlynn S. Stillwell** and Michael E. Webber. (2012) “Assessing the Economic Value of Drought Mitigation from Alternative Power Plant Cooling Technologies.” 2012 IWA World Congress on Water, Climate, and Energy, May 13–18, 2012, Dublin, Ireland.
4. **Ashlynn S. Stillwell**, Kelly M. Twomey, Michael E. Webber, Rusty Osborne, David M. Greene, and Dan W. Pedersen. (2011) “An Integrated Energy, Carbon, and Economic Analysis of Reclaimed Water Use in Austin, Texas.” 2011 ASME International Mechanical Engineering Congress and Exposition, November 11–17, 2011, Denver, CO, USA.

3. **Ashlynn S. Stillwell**, Mary E. Clayton, and Michael E. Webber. (2011) “Analysis of a River Basin-Based Model of Advanced Power Plant Cooling Technologies for Mitigating Water Management Challenges.” 2011 ASME International Mechanical Engineering Congress and Exposition, November 11–17, 2011, Denver, CO, USA.
2. **Ashlynn S. Stillwell** and Michael E. Webber. (2009) “Energy and Water: Integration for Sustainable Policy.” 2009 Villanova University International Sustainability Conference, April 23–25, 2009, Villanova, PA, USA.
1. **Ashlynn S. Holman**, Carey W. King, and Michael E. Webber. (2008) “Energy Water Nexus in Texas: Planning for Future Energy and Water Needs.” Climate Change Impacts on Texas Water Conference, April 28–30, 2008, Austin, TX, USA.

#### TECHNICAL REPORTS AND WHITE PAPERS

(PUBLICATIONS WITH ADVISED STUDENTS\* AS NOTED)

6. Lucas A. Djehdian\* and **Ashlynn S. Stillwell**. (2016) “Quantifying Leaks in Mummy Mountain (Phoenix, AZ).” City of Phoenix. Phoenix, AZ, USA.
5. Carey W. King, Kelly M. Twomey, **Ashlynn S. Stillwell**, and Michael E. Webber. (2011) “Clean Energy and Water: Assessment of Mexico for improved water services with renewable energy.” International Development Research Centre. Ottawa, Ontario, Canada.
4. Carey W. King, **Ashlynn S. Stillwell**, Kelly M. Twomey, and Michael E. Webber. (2010) “Coherence Between Water and Energy Policies.” Organisation for Economic Co-operation and Development. ENV/EPOC/GSP(2010)21. Paris, France.
3. Melissa C. Lott, **Ashlynn S. Stillwell**, Stuart M. Cohen, Carey W. King, and Michael E. Webber. (2009) “Power Generation for the 21st Century.” ATI Clean Energy Incubator. Austin, TX, USA.
2. **Ashlynn S. Stillwell**, Carey W. King, Michael E. Webber, Ian J. Duncan, and Amy Hardberger. (2009) “Energy-Water Nexus in Texas.” University of Texas at Austin and Environmental Defense Fund. Austin, TX, USA.
1. Carey W. King, **Ashlynn S. Holman**, and Michael E. Webber. (2008) “CleanTX Analysis on Water: The Thirst for Power.” ATI Clean Energy Incubator. Austin, TX, USA.

#### GENERAL INTEREST CONTRIBUTIONS

Featured interview in “Water” (episode 1) of *Power Trip: The Story of Energy*; PBS documentary, 2020.  
Available: <https://www.pbs.org/show/power-trip-story-energy/>.

“Is water price an effective means to reduce cooling water consumption at thermal power plants?” Global Water Forum, July 15, 2019.

Available: <https://globalwaterforum.org/2019/07/15/is-water-price-an-effective-means-to-reduce-cooling-water-consumption-at-thermal-power-plants/>.

“Eating the Fruit of Wisdom and Knowledge.” Sinai and Synapses blog, February 28, 2019.

Available: <https://sinaiandsynapses.org/multimedia-archive/eating-the-fruit-of-wisdom-and-knowledge/>.

“Friends, Let’s Talk About Poop.” Sinai and Synapses blog, November 19, 2018.

Available: <https://sinaiandsynapses.org/multimedia-archive/friends-lets-talk-about-poop/>.

“Empowering People of Faith to Care for the Environment.” Sinai and Synapses blog, May 10, 2018.  
Available: <https://sinaiandsynapses.org/multimedia-archive/empowering-people-of-faith-to-care-for-the-environment/>.

“Faith in the Water.” Sinai and Synapses blog, April 23, 2018.  
Available: <https://sinaiandsynapses.org/multimedia-archive/faith-in-the-water/>.

“Linking reclaimed water with power generation: Water reuse and the energy-water nexus.” Global Water Forum, July 22, 2014.  
Available: <http://www.globalwaterforum.org/2014/07/22/linking-reclaimed-water-with-power-generation-water-reuse-and-the-energy-water-nexus/>.

“Long Distance Water Turns Up the Dial on Energy.” Texas Water Solutions blog, September 23, 2010.  
Available: <http://blogs.edf.org/texaswatersolutions/2010/09/23/long-distance-water-turns-up-the-dial-on-energy/>.

“Thirsty Texas.” The Baines Report, April 14, 2010.  
Available: <http://www.bainesreport.org/2010/04/thirsty-texas/>.

## Teaching

- 2014–2022 Instructor, *CEE 433 (formerly CEE 498 WT3/WT4) Water Technology & Policy*, University of Illinois Urbana-Champaign  
Lecture-discussion course for upper-level undergraduates and graduate students in Civil and Environmental Engineering; Class includes field trips, guest speakers, and an individual analytical project with podcast; Evaluation: 4.7–5/5 (instructor), 4.4–5/5 (course)
- 2018–2020 Instructor, *CEE 340 Energy and Global Environment*, University of Illinois Urbana-Champaign  
Lecture-project course for junior-level undergraduate students in Civil and Environmental Engineering; Class content is an overview of local and global impacts of energy production and consumption; Evaluation: 4.8–4.9/5 (instructor), 4.7/5 (course)
- 2016–2017 Instructor, *CEE 598 SH Stochastic Hydrology*, University of Illinois Urbana-Champaign  
Lecture course for graduate students in Civil and Environmental Engineering; Class content is statistical theory and methods application to hydrology; Evaluation: 4.3–4.7/5 (instructor), 4.6–4.8/5 (course)
- 2015, 2017 Instructor, *CEE 350 Water Resources Engineering*, University of Illinois Urbana-Champaign  
Lecture course for junior-level undergraduate students in Civil and Environmental Engineering; Class content is an overview of hydrology and hydraulics; Evaluation: 4.6–5/5 (instructor), 4.5–4.9/5 (course)
- 2013–2014 Collins Scholar, Academy for Excellence in Engineering Education, University of Illinois Urbana-Champaign
- 2012–2013 Instructor and co-organizer, *Continuing Education: Water Technology & Policy*, The University of Texas at Austin  
1- and 2-day short courses with the University of Texas Center for Lifelong Engineering Education
- 2012 Co-instructor, *TC 357 Water and Society*, The University of Texas at Austin  
Discussion-oriented seminar format Plan II Honors course; Class included field trips, guest speakers, and a 25-page individual research paper; Evaluation: 4.8/5 (instructor)

## Research advising

### **CURRENT POST-DOCTORAL RESEARCHERS**

Jorge Pesantez; Ph.D. Civil Engineering, 2021; North Carolina State University

### **CURRENT PH.D. STUDENTS**

Laura C. Gray; anticipated graduation: May 2025

Zahra Heydari; anticipated graduation: May 2025

Jenni Nugent; anticipated graduation: May 2024

Adam P. Sibal; anticipated graduation: May 2025

### **CURRENT M.S. STUDENTS**

Christopher S. Lee; anticipated graduation: August 2022

Victoria V. Otrubina; anticipated graduation: May 2023

### **CURRENT UNDERGRADUATE RESEARCH STUDENTS**

Shivani Ramesh; anticipated graduation: May 2023

### **FORMER PH.D. STUDENTS**

Christopher M. Chini (Ph.D. Civil Engineering, 2018; dissertation: “The Blue City: Urban Metabolism and the Energy-Water Nexus”)

Current position: Assistant Professor, Air Force Institute of Technology, Wright-Patterson AFB, OH

Lauren H. Logan (Ph.D. Civil Engineering, 2018; dissertation: “Integrating Thermoelectric Power Generation Operations with Aquatic Ecosystem Sustainability”)

Current position: Assistant Professor, Ohio Northern University, Ada, OH

William Naggaga Lubega (Ph.D. Civil Engineering, 2018; dissertation: “Managing Impacts of Hydrological Droughts and Heat Waves on Thermal Power Plants”)

Current position: Business consultant, Boston Consulting Group, Chicago, IL

Reshmina William (Ph.D. Civil Engineering, 2019; dissertation: “The Role of Reliability in Characterizing Green Stormwater Infrastructure in Urban Areas”; M.S. Civil Engineering, 2015; thesis: “Reliability Analysis of Green Roofs Under Different Storm Scenarios”)

Current position: Judicial Fellow, AAAS Science and Technology Policy Fellowship

### **FORMER M.S. STUDENTS**

Trevor L. Auth (M.S. Civil Engineering, 2019; thesis: “Low-Head Hydropower as a Reserve Power Source for Wind Power”)

Current position: Engineer, Hazen and Sawyer, Raleigh, NC

Zachary A. Barker (M.S. Civil Engineering, 2015; thesis: “Local and Downstream Impacts of Water Reuse at Power Plants”)

Current position: Business Development Engineer, Sensus, Morrisville, NC

Gabrielle M. Bethke (M.S. Civil Engineering, 2020; thesis: “Disaggregation and Classification of Residential Water Events from High-Resolution Smart Water Meter Data Using Unsupervised Machine Learning”)



Methods”)

Current position: Energy Efficiency Engineer, Commonwealth Edison, Oak Brook, IL

Joseph Bongungu Loend’a-Namba (M.S. Civil Engineering, 2020; thesis: “Estimating Residential Hot Water Consumption from Smart Electricity Meter Data”)

Current position: Engineer, HDR, Charlotte, NC

James F. Canning (M.S. Civil Engineering, 2018; thesis: “Sustainability Analysis of Distributed, Green Stormwater Infrastructure”)

Current position: Engineer, Strand Associates Inc., Joliet, IL

Tyler A. DeNooyer (M.S. Civil Engineering, 2015; thesis: “Integrating Water Resources and Power Generation: The Energy-Water Nexus in Illinois”)

Current position: Engineer, Prein & Newhof, Muskegon, MI

Lucas A. Djehdian (M.S. Civil Engineering, 2018; thesis: “The Resource Demands and Water Stress of Cities: A Study of the U.S. Urban Food-Energy-Water Nexus”)

Current position: Senior Optimization Engineer, WCS Engineering, Chicago, IL

Allisa G. Hastie (M.S. Civil Engineering, 2022; thesis: “Opportunities for Non-Potable Water Reuse in the United States Based on a Supply-Demand Assessment and Review of State Policies”)

Current position: Ph.D. student, Stanford University, Department of Civil and Environmental Engineering, Palo Alto, CA

#### **FORMER UNDERGRADUATE RESEARCH STUDENTS**

Abigail R. Cohen (B.S. Civil Engineering, 2020)

Current position: General Engineer, Federal Aviation Administration, Washington, D.C.

Lauren E. Excell (B.S. Civil Engineering, 2020; First Place Ira O. Baker Award)

Current position: M.S. student, Stanford University, Department of Civil and Environmental Engineering, Palo Alto, CA

Brianna L. Freitag (B.S. Civil Engineering, 2018; M.S. Civil Engineering, 2019)

Current position: Engineer, DuPage County Department of Stormwater Management, Wheaton, IL

Mingming Gui (B.S. Civil Engineering, 2017; M.S. Civil Engineering, 2018)

Current position: Product Manager, Oracle, Seattle, WA

Rohini S. Gupta (B.S. Civil Engineering, 2017; Second Place Ira O. Baker Award)

Current position: Ph.D. student, Cornell University, Department of Civil and Environmental Engineering, Ithaca, NY

Kelsey L. Schreiber (B.S. Systems Engineering and Design, 2016)

Current position: Research Support Specialist, Cornell University, Charles H. Dyson School of Applied Economics and Management, Ithaca, NY

Micah Stickling (B.S. Civil Engineering, 2018)

Current position: District Manager, Bloomington Township Public Water District, Bloomington, IL

Grace E. Wackerman (B.S. Electrical Engineering, 2020; senior thesis: “Using Socioeconomic Data to Predict Multi-Family Residential Electricity Consumption”)  
Current position: Associate Engineer, Technology Development, National Grid, Waltham, MA

#### **SERVICE ON PH.D. COMMITTEES**

Patricia A. Malinowski (Ph.D. Infrastructure and Environmental Management Systems, 2017, University of North Carolina, Charlotte)  
Dissertation: “Integrated Water Management and Green Infrastructure Retrofits in Urban Areas: Perspectives on Energy Savings, Water Quality Improvements and Economic Incentives”

Desiree Phillips (Ph.D. Electrical and Computer Engineering, 2018, University of Illinois Urbana-Champaign)  
Dissertation: “Towards Joint Water-Power Electric Grid Modeling”

Meredith L. Richardson (Ph.D. Civil Engineering, 2021, University of Illinois Urbana-Champaign)  
Dissertation: “Discerning the Thermodynamic Basis of Emergent Vegetation Structure and Ecosystem Responses to Human Perturbations”

Paul Ruess (Ph.D. Civil Engineering, anticipated 2022, University of Illinois Urbana-Champaign)  
Dissertation: “Groundwater Use in the US Economy”

Majid Shafiee Jood (Ph.D. Civil Engineering, 2019, University of Illinois Urbana-Champaign)  
Dissertation: “Towards Effective Use of Climate Forecasts in Agricultural Decision Making: Bridging the Gap Between Modeling and Empirical Studies”

Alice Strazzabosco (Ph.D. Chemical Engineering, 2020, University of Queensland, Australia)  
Dissertation: “Integrating Renewable Energy Technologies in the Water Industry: Opportunities and Challenges”

Lufan Wang (Ph.D. Civil Engineering, anticipated 2021, University of Illinois Urbana-Champaign)  
Dissertation: “Machine Learning and Data-Driven Building Energy and Water Analytics”

Qiankun Zhao (Ph.D. Civil Engineering, anticipated 2022, University of Illinois Urbana-Champaign)  
Dissertation: “Data-driven reservoir operation modeling: hidden Markov models and applications”

#### **MENTORING SERVICE FOR MAVIS FUTURE FACULTY FELLOWS UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN**

2017–2018 Reshmina William, Ph.D. Civil Engineering  
2017–2018 Nicole Jackson, Ph.D. Civil Engineering  
2018–2019 Susana Roque-Malo, Ph.D. Civil Engineering  
2020–2021 Paul Ruess, Ph.D. candidate Civil Engineering  
2020–2021 Kevin Wallington, Ph.D. candidate Civil Engineering

#### **RESEARCH EXPERIENCES FOR UNDERGRADUATES PROGRAM SUPERVISION CIVIL AND ENVIRONMENTAL ENGINEERING, UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN**

2015 Lucas Djehdian  
2015 Rohini Gupta  
2017 Gabrielle Bethke  
2017 Mingming Gui  
2018 Emily Fulton

2018 Allisa Hastie  
2019 Lauren Excell  
2019 Abigail Cohen  
2020 Vica Otrubina  
2021 Shivani Ramesh

**RESEARCHERS INITIATIVE UNDERGRADUATE RESEARCH PROGRAM SUPERVISION  
UNIVERSITY HOUSING, UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN**

2015 Viviana Guaman, Civil and Environmental Engineering  
2016 Alishba Rehman, Chemical and Biomolecular Engineering  
2017 Allisa Hastie, Civil and Environmental Engineering  
2017 Grace Wackerman, Electrical and Computer Engineering  
2019 Helen Sun, Civil and Environmental Engineering  
2020 Jeric Cuasay, Electrical and Computer Engineering

## Service to the profession

**UNIVERSITY OF ILLINOIS CAMPUS SERVICE**

2017–2022 Mentor, Academic Redshirt in Science and Engineering (ARISE) program  
2018 Steering committee member, Illinois Data Science Initiative  
2018–2022 Committee member, University Housing Advisory Committee

**CIVIL AND ENVIRONMENTAL ENGINEERING DEPARTMENT LEADERSHIP**

2019–2022 Chair, Civil and Environmental Engineering Curriculum Committee  
2019–2021 Program Coordinator, Energy-Water-Environment Sustainability interdisciplinary program, Civil and Environmental Engineering

**CIVIL AND ENVIRONMENTAL ENGINEERING DEPARTMENT SERVICE**

2021–2022 Committee member, Civil and Environmental Engineering Advisory Committee  
2019–2020 Committee member, Civil and Environmental Engineering Department Head Search Committee  
2017–2022 Committee member, Civil and Environmental Engineering Curriculum Committee  
2017–2018 Committee member, Civil and Environmental Engineering Faculty Search Committee  
2016–2019 Committee member, Civil and Environmental Engineering Interdisciplinary Oversight Committee  
2016–2018 Committee member, College of Engineering IT Education Working Group  
2014–2015 Coordinator, Civil and Environmental Engineering Interdisciplinary Research Summit  
2014–2015 Committee member, Environmental Hydrology and Hydraulic Engineering Graduate Applications Admissions  
2014–2016 Environmental Hydrology and Hydraulic Engineering Representative, Graduate Affairs Committee  
2014 Coordinator, Ven Te Chow Hydrosystems Seminar Series  
2014, 2016 Advisor, Illinois Water Day

**EDITORSHIP OF JOURNAL PUBLICATIONS**

since 2020 Editorial Board Member, *Environmental Research: Infrastructure and Sustainability*  
since 2017 Associate Editor, *Journal of Water Resources Planning and Management*  
since 2018 Associate Editor, *Journal of Sustainable Water in the Built Environment*  
since 2018 Editorial Board Member, *Environment International*

- 2019 Guest Editor, Special Issue on “Technologies, Policies and Management Strategies for Enhanced Sustainability of Urban Water and Energy Systems”, *Sustainability*
- 2017–2018 Guest Editor, Special Issue on “Energy and Water Sustainability: Energy Supplies in Water Exploration, Production and Delivery”, *Water*
- 2013–2014 Section Editor, Energy-Water Nexus Section, *Current Sustainable/Renewable Energy Reports*

#### PROFESSIONAL SOCIETY SERVICE

- since 2011 American Society of Civil Engineers; Environmental & Water Resources Institute  
Environmental and Water Resources Systems Committee (Planning and Management Council)  
 Past Chair (2021–2022)  
 Chair (2020–2021)  
 Vice Chair (2019–2020)  
 Secretary (2018–2019)
- Civil Engineering Perspectives on Food, Energy, Water Nexus Task Committee  
 Vice Chair (2018–2021)
- Sustainability Committee (Interdisciplinary Council)  
 Past Chair (2017–2018)  
 Chair (2016–2017)  
 Vice Chair (2015–2016)  
 Secretary (2014–2015)
- Member, Energy and Environment Nexus Committee (Energy Division)
- since 2013 American Geophysical Union  
 Member, Water and Society Technical Committee (Hydrology Section)
- since 2017 Institute of Electrical and Electronics Engineers  
 Member, Smart Cities Committee
- 2017 U. S. Green Building Council  
 WaterBuild Advisory Council member

#### MEMBERSHIP IN PROFESSIONAL AND HONORARY SOCIETIES

- since 2011 American Society of Civil Engineers
- since 2012 American Association for the Advancement of Science
- since 2013 American Geophysical Union
- since 2013 Association of Environmental Engineering and Science Professors
- 2012–2015 American Society of Mechanical Engineers  
 Member, Energy-Water Interdisciplinary Council
- 2004 National Honor Society Tau Beta Pi
- 2004 National Honor Society Omega Chi Epsilon

#### MEMBERSHIP IN SERVICE ORGANIZATIONS

- lifetime Girl Scouts of the USA – lifetime member, volunteer, leader, Gold Award recipient
- since 2015 Girl Scouts of Central Illinois Board of Directors, Chair (2020–2022), Coordinator of “Girl Power” event at Abbott Power Plant (since 2015), National Council Session delegate (2020–2023)
- 2014–2019 Faith in Place Board of Directors, Chair (2016–2019)
- 2018–2021 Boy Scouts of America, Cub Scout Den Leader

## Consulting

2016–2017 UI Labs, Chicago, IL, USA

2011 International Research and Development Centre, Ottawa, Ontario, Canada

2010 Organisation for Economic Cooperation and Development (OECD), Paris, France

2010 ExxonMobil Corporate Strategic Research, Clinton, NJ, USA