



ARIZONA TRI-UNIVERSITY  
RECHARGE AND WATER  
RELIABILITY PROJECT REPORT

---

APPENDIX G: ATUR  
RESEARCHER BIOS

---

## Project Management Team

**Principal Investigator: Professor Kathy Jacobs**, Director, *Center for Climate Adaptation Science and Solutions within the Arizona Institute for Resilience*; Professor, *Department of Environmental Science, University of Arizona*

Kathy Jacobs is a professor of Environmental Science at the UArizona and Director of the Center for Climate Adaptation Science and Solutions (CCASS) within the Arizona Institute for Resilience. From 2010-2013, Jacobs worked in the Office of Science and Technology Policy in the White House. She was director of the Third National Climate Assessment, and the lead advisor on water science, water policy, and climate adaptation. From 2006-2009, Jacobs was Executive Director of the Arizona Water Institute, a consortium of Arizona's three universities focused on water sustainability. She worked 23 years for the Arizona Department of Water Resources, including 15 as the director of the Tucson Active Management Area. She was engaged in multiple aspects of implementing Arizona's Groundwater Management Act, including development of water conservation programs and the Assured Water Supply Rules.

**Project Manager: Dr. Neha Gupta**, Assistant Research Professor, *Arizona Institute for Resilience, University of Arizona*

Dr. Neha Gupta is an Assistant Research Professor in the University of Arizona's Arizona Institute for Resilience and an affiliate faculty member in the Department of Hydrology and Atmospheric Sciences. Her interdisciplinary research focuses on water resources in arid and semi-arid regions, with particular emphasis on urban hydrology, groundwater recharge, stormwater capture, watershed health, and climate resilience. She works with researchers across multiple disciplines to develop and translate research into information that supports water management and adaptation planning. Her research is conducted in partnership with stakeholders and resource managers to ensure that scientific investigations address real-world management needs and support water management across Arizona and the broader Southwest. Prior to joining the University of Arizona, she worked as an environmental consultant specializing in contaminated soil and groundwater investigations and remediation.

**Project Management Assistant: Marlana Hinkley**, Graduate Student, *Schools of Natural Resources and the Environment and Government and Public Policy, University of Arizona*  
**Subteam(s): Stakeholder & Partner Engagement (lead)**

Marlana Hinkley is a dual-degree M.S. (Water, Society & Policy) and M.P.A. student in the schools of Natural Resources & the Environment and Government & Public Policy at the University of Arizona. She is a licensed civil engineer and has an academic and career background in environmental engineering. Marlana served three years as a Water, Sanitation, and Hygiene (WASH) volunteer with the Peace Corps in Panama and five years with the Indian Health Service managing public water and sanitation projects for the San Carlos Apache Tribe in eastern Arizona. Through her career in public service, Marlana became interested in linking engineering, hydrology, and water policy to support communities in their water resources planning and

management efforts. She has been able to explore this interest as part of the ATUR team, where she worked to develop science-based decision-support tools to support Arizona's diverse natural resource managers in enhancing groundwater recharge in their jurisdictions.

**Project Management Assistant: Kirsten Howe**, Research Staff, *Arizona Institute for Resilience, University of Arizona*

Kirsten Howe is a project manager in the Arizona Institute for Resilience at the University of Arizona. Her professional experience includes program management, environmental education, and community engagement, and she earned her master's in environmental conservation education from New York University. Her areas of interest include environmental and climate change justice, community engagement and place-based education, and ecosystem connectivity and conservation. Her master's thesis examined the use of geospatial learning on student engagement, motivation, and action in urban environmental justice pedagogy.

## Team Leads

**Fern Bromley**, Graduate Student, *School of Natural Resources and the Environment, University of Arizona*

*Subteam(s): **Forest & Natural Environments (lead)***

Fern Bromley is a PhD student in Natural Resources at the University of Arizona. Fern studied Earth and Environmental Sciences at Boston University where they researched water use in trees before coming to Arizona to work with the National Park Service conducting ecological restoration and vegetation monitoring. They joined the ATUR project in 2023 upon starting their graduate studies at UA and have been conducting research on several topics related to plants and water, including how vegetation responds to and influences water availability. In their work, Fern applies tools from remote sensing, plant ecophysiology, and community ecology to understand ecohydrological dynamics from the individual plant to ecosystem scale. They are passionate about working with managers to apply science to practical resource management to help sustain natural, functioning ecosystems into the future.

**Dr. Yoga Korgaonkar**, Assistant Professor of Practice, *School of Geography, Development and Environment, University of Arizona*

*Subteam(s): **Urban Environment (lead)***

Yoga Korgaonkar is an Assistant Professor of Practice in the School of Geography, Development and Environment. Yoga's research focuses on urban hydrology and hydrological modeling of urban areas and green stormwater infrastructure. Yoga is also a GIS Analyst and programmer with expertise in working with spatial datasets and analysis of these datasets. Yoga is also the primary developer of the AGWA Urban tool that can be used to model urban hydrology and green infrastructure.

**Dr. Giuseppe Mascaro**, Associate Professor, *School of Sustainable Engineering and the Built Environment, Arizona State University*

*Subteam(s): **Hydroclimate (lead)***

Giuseppe Mascaro is an Associate Professor at the School of Sustainable Engineering and the Built Environment at Arizona State University (ASU). He leads the Hydroclimate & Infrastructure

Research Lab, which investigates a range of topics in hydrology, climate, and atmospheric sciences that are useful to support engineering applications by synergistically combining advanced statistical techniques and numerical models of the Earth's climate and hydrologic cycle. Dr. Mascaro's interests include stochastic hydrology, statistical downscaling, watershed modeling, impact of climate change on water resources, remote sensing applied to hydrology and water resources, water systems, and hydroinformatics.

**Dr. Abe Springer**, Professor, *School of Earth and Sustainability, Northern Arizona University*  
*Subteam(s): Recharge Enhancement/Alteration (lead), Forest & Natural Environments*

Abe Springer is Professor of Ecohydrogeology and was the Inaugural Director of the School of Earth Sciences and Environmental Sustainability at Northern Arizona. In the Fall of 2007, he was the Fulbright Visiting Chair of Water and Environment at the University of Lethbridge, Alberta, Canada studying the ecohydrology of springs of Western Canada. In 2022, he was the Birdsall-Dreiss Distinguished and LaMoreaux International Lecturer for the Hydrogeology Scientific Division of the Geological Society of America. Since arriving at NAU in 1994, he has taught courses in hydrogeology, geology of Arizona, environmental geology, applied geology, groundwater modeling, contaminant transport modeling, university colloquium and others. Dr. Springer and his students study local and regional groundwater flow systems and human impacts on them, apply principles of sustainability to aquifer management through models, quantify the hydrological function of groundwater dominated ecosystems, the role of land-use change and disturbance on groundwater flow systems, study karst hydrogeology, and restoration of riparian ecosystems.

## Faculty Researchers

**Dr. Ali Behrangi**, Distinguished Scholar and Professor, *Hydrology and Atmospheric Sciences, University of Arizona*

*Subteam(s): Hydroclimate*

Ali Behrangi is a distinguished scholar and Professor at the Department of Hydrology and Atmospheric sciences at the University of Arizona. His research focuses on using remote sensing and ground observation for hydrologic applications and study of water cycle. His major focus has been on precipitation products, from retrieval and development to application. He has utilized hydrologic models to assess precipitation products and for applications such as flood forecasting and drought analysis. He has also been involved in assessment of climate models and how they project future water related components. Behrangi has been PI on several NASA projects on related topics. He teaches few courses including remote sensing of hydrology and atmosphere and global climate change.

**Dr. Andrew Bennett**, Assistant Professor, *Department of Hydrology and Atmospheric Sciences, University of Arizona*

*Subteam(s): Hydroclimate*

Andrew Bennett's research focuses on developing machine learning techniques for hydrologic models across a range of scales and processes. Prior to joining the University of Arizona Dr. Bennett received his PhD in Civil and Environmental Engineering from the University of Washington in 2021 and was previously a research associate in the Computer Science and Mathematics Division at Oak Ridge National Laboratory.

**Dr. Patrick Broxton**, Assistant Research Professor, *School of Natural Resources and the Environment, University of Arizona*

*Subteam(s): Forest & Natural Environments*

Patrick Broxton is a researcher at the University of Arizona, where he received his M.S. in hydrology and Ph.D. in hydrometeorology. He is interested in a broad range of topics related to hydrology, atmospheric science, GIS, and remote sensing. His current research is focused on understanding how snowpack affects streamflow in the semiarid southwestern US and how it might be affected by forest changes due to logging, insect infestations, and fire. Dr. Broxton's also creates and maintains decision support tools that provide useful visualizations and analytics of hydrometeorological datasets.

**Dr. Ty Ferré**, Distinguished Professor, *Hydrology and Atmospheric Sciences, University of Arizona*  
*Subteam(s): Urban Environment, Recharge Enhancement/Alteration*

Ty Ferré is a Distinguished Professor in the Department of Hydrology and Atmospheric Sciences at the University of Arizona. His areas of research focus are the movement of water from the ground surface to the water table, the use of noninvasive methods to characterize hydrogeologic systems, and the development of models to support water resources decision making. He presented the National Ground Water Association's Darcy Lecture in 2016 on the latter topic. He teaches courses ranging from physical hydrogeology to field methods to decision science. He is also actively involved as a hydrologic intermediary, helping to bridge the gap between citizen groups and technical consultants.

**Dr. Jia Hu**, Associate Professor, *School of Natural Resources and the Environment*; Assistant Dean of Graduate Education for the *College of Agriculture, Life, and Environmental Sciences*; Director, *Southwest Climate Adaptation Science Center, University of Arizona*

*Subteam(s): Forest & Natural Environments (former lead)*

Jia Hu (pronounced Jah Who) was Associate Professor and Associate Director in the School of Natural Resources and Environment at University of Arizona and Affiliate Faculty at the Laboratory of Tree Ring Research until summer, 2025. She was also the Host Institution Director for the Southwest Climate Adaptation Science Center at University of Arizona. Additionally, Jia served as the Principal Investigator for the Hu Lab, where she and other researchers study global ecosystems and relationships between plants, water, soil, and climate. Jia's research interests include climate adaptation and sustainability, ecohydrology, watershed management, and natural resources policy. She has received a number of awards and recognitions for her work. She is now an Associate Dean at Oregon State University.

**Dr. Willem van Leeuwen**, Professor and Interim Director, *School of Natural Resources and the Environment*; Professor, *School of Geography, Development and Environment*; Director, *Arizona Remote Sensing Center, University of Arizona*

*Subteam(s): Forest & Natural Environments*

Wim van Leeuwen is a Professor and Interim Director of the School of Natural Resources and the Environment at the University of Arizona. His research interests lie in understanding soil and vegetation ecosystem dynamics and how they respond to climate and human interactions. Dr. van Leeuwen's research efforts seek an improved understanding of long-term landscape-scale dynamics in forest and rangeland ecosystems, concentrating especially on ecosystem health

and sustainability. He applies remote sensing and GIS techniques to problems of sustainable land use and land degradation, with a long-term goal to develop new drought and ecosystem monitoring products based on the integration of climate data and remotely sensed land surface temperature and biophysical data. Current research projects revolve around Decision Support Systems and the integration of remotely sensed products in Geographic Information Systems in order to monitor natural resources, snow and vegetation dynamics, post-wildfire effects, and land degradation through time and across landscapes.

**Dr. Guo-Yue Niu**, Associate Professor, *Hydrology and Atmospheric Sciences, University of Arizona*  
*Subteam(s): Hydroclimate*

Guo-Yue Niu is an associate professor at the Department of Hydrology and Atmospheric Sciences, the University of Arizona (UA). His research focuses on improving the understanding of the role of land surface processes playing in the climate system through modeling and data analyses. He has been developing process-based land surface models, including the widely used CLM and Noah-MP, used for weather and climate predictions. To improve predictive understanding of the climate impacts on catchment-scale ecohydrological processes, he has been developing a Terrestrial Integrated Modeling System (TIMS) to describe coevolution of hydrological, microbial, geochemical, and ecological processes at the Earth's land surface.

**Dr. Temuulen “Teki” Sankey**, Professor, *School of Informatics, Computing, and Cyber Systems, Northern Arizona University*

*Subteam(s): Forests & Natural Environments, Recharge Enhancement/Alteration*

Dr. Sankey studies semi-arid and arid environments using remote sensing techniques. She uses spaceborne, airborne, and ground-based spectral, thermal, and lidar data to quantify environmental changes associated with climate drivers as well as land management. In Arizona, Dr. Sankey and her lab group combine various remote sensing data sources with in situ measurements to examine the impacts on forest management efforts such as the 4FRI restoration treatment on forest ecohydrological cycle and ecosystem drought resilience. Specifically, Dr. Sankey is evaluating satellite-based estimates of evapotranspiration and how it varies across vegetation cover types as impacted by land management practices. Dr. Sankey serves on the advisory board of OpenET and is a Senior Editor for the Remote Sensing in Ecology and Conservation journal.

**Dr. Tianfang Xu**, Assistant Professor, *School of Sustainable Engineering and the Built Environment, Arizona State University*

*Subteam(s): Urban Environment, Recharge Enhancement/Alteration*

Tianfang Xu is an assistant professor in the School of Sustainable Engineering and the Built Environment at Arizona State University (ASU). Her research combines physical process-based models with machine learning to improve predictive capability and understanding of water resources systems, groundwater in particular, under human adaptations and climate change. Her research has been supported by various funding agencies, including the National Science Foundation, National Oceanic and Atmospheric Administration, U.S. Geological Survey, and U.S. Army Corps of Engineers. Her research experience relevant to the tri-university project includes quantifying tradeoffs in water quantity and quality in a managed aquifer recharge facility, large-scale agricultural irrigation monitoring using remote sensing and deep learning, and regional-scale groundwater flow modeling, bias correction, and uncertainty quantification.

**Dr. Cassie Jiaqi Zhang**, Assistant Research Professor, *School of Natural Resources & the Environment, University of Arizona*

*Subteam(s): Forest & Natural Environments*

Cassie Zhang is an assistant research professor in the School of Natural Resources and the Environment. Her research interests lie in unraveling the complex dynamics of surface water across diverse environmental settings. She is particularly passionate about understanding the impacts of climate change and human activities on hydrological systems, including changes in precipitation patterns and land use alterations. Her research aims to integrate advanced computational approaches, remote sensing technologies, and data-driven methods to improve the accuracy and efficiency of hydrologic modeling and predictions.

## Post-Doctoral Researchers

**Dr. Aniket Gupta**, Postdoctoral Associate, *Hydrology and Atmospheric Sciences, University of Arizona*

*Subteam(s): Hydroclimate*

Aniket Gupta is a Postdoctoral Associate at the Department of Hydrology and Atmospheric sciences at the University of Arizona (UA). His research focuses on using the physical based hydrological model to study the hydrological processes from surface to subsurface. His expertise include catchment hydrology, mountain hydrology, critical zone hydrology, snow hydrology and land surface modeling. He has completed his Ph.D. from the University of Grenoble Alpes, France with specialization in Hydrological Sciences. His Ph.D. work was focus on modeling the water, energy and residence time in a subalpine critical zone. He has experience in modeling the hydrological system using the different modeling platforms and currently involved in the projects which sees the benefits from multi modeling environment under the NextGen Framework.

**Dr. Ryan Lima**, Postdoctoral Scholar, *School of Earth and Sustainability, School of Informatics, Computing, and Cyber Systems, Northern Arizona University*

*Subteam(s): Forest & Natural Environments, Recharge Enhancement/Alteration*

Ryan has an interdisciplinary background with bachelor's degrees in both Philosophy and Plant Ecology from Ohio University. He then spent several years working seasonally for the National Park Service as a wildland firefighter, fire effects monitor, and upland vegetation monitor. Ryan earned a master's degree in Environmental Science & Policy where he worked to quantify the non-market value of hydrologic services of springs and forested watersheds in Northern Arizona. He earned a Ph.D. working in the remote sensing and geoinformatics lab at NAU and his dissertation research focused on measuring the effect of dam discharge patterns on sandbar morphodynamics using deep learning. Ryan comes to this project most recently from the Babbitt Center for Land and Water Policy where he oversaw a project developing indicators of land use and water resources in the Colorado River Basin.

**Dr. Abdul Moiz**, Postdoctoral Scholar, *School of Sustainable Engineering and the Built Environment, Arizona State University*

*Subteam(s): Hydroclimate*

Dr. Abdul Moiz was a postdoctoral scholar at the School of Sustainable Engineering and the Built Environment (SSEBE) at Arizona State University until January, 2025. He received his

Masters and Ph.D. in Civil Engineering at The University of Tokyo and later worked there as a Project Researcher at the Department of Civil Engineering and the Center for Global Commons. His research primarily focuses on the development of decision-support tools for the operation and development of dam reservoirs using Distributed Hydrological Models and Geographic Information Systems. He has also been actively involved in the process-based Distributed Hydrological Models and real-time hydrometeorological prediction systems using gauge-radar and reanalysis products and investigating their skill and value in mountainous regions. He is now at Scripps Institute for Oceanography.

**Dr. Caelum Mroczek**, *School of Earth and Sustainability, Northern Arizona University*

*Subteam(s): Forest & Natural Environments, Recharge Enhancement/Alteration*

Caelum Mroczek joined the project as a PhD student in the Earth Sciences & Environmental Sustainability program at Northern Arizona University. He joined the project management team after his graduation in May 2026 and is now a postdoctoral researcher at the University of Arizona. Caelum's research interests include regional groundwater flow dynamics, sustainable aquifer management, surface water–groundwater interactions, and effects of climate change on ecohydrologic systems.

**Dr. Yuan Qiu**, Associate Research Professional, *School of Sustainability, Arizona State University*

*Subteam(s): Hydroclimate*

Yuan Qiu is an Associate Research Professional at Arizona State University and is also affiliated with the Department of Hydrology and Atmospheric Sciences at the University of Arizona. Dr. Qiu earned his Ph.D. in Cartography and Geographic Information Systems in June 2018. After graduation, he worked for six months at an agricultural technology company before joining the Institute of Atmospheric Physics, Chinese Academy of Sciences, as a postdoctoral research associate, where he worked until July 2023. In August 2023, he moved to the University of Arizona and worked there as a postdoctoral research associate for a year. His research focuses on regional climate modeling, hydrological modeling, and subseasonal-to-seasonal prediction. He is currently involved in the ATUR project and the Arizona Water Innovation Initiative project. His work advances land surface modeling to improve water resource projection and subseasonal-to-seasonal prediction.

**Dr. Xin Su**, Postdoc Associate Researcher, *School of Sustainable Engineering & the Built Environment, Arizona State University*

Xin Su was a postdoc associate researcher in the School of Sustainable Engineering & the Built Environment at Arizona State University (ASU) working with Dr. Tianfang Xu until May 2024. Her research focuses on urban surface and subsurface flow interaction, especially short-term tide influences near shore groundwater fluctuation and long-term groundwater level increase. In addition, she also studied coastal groundwater systems respond to sea-level rise and tested adaptation strategies. She received her PhD degree from Stevens Institute of Technology, working on urban groundwater modeling, and master's degree was from University of California Irvine studying north California mountain area seasonal streamflow prediction. She is now a Research Associate Professor at the University of Memphis.

## Graduate Students

**Ken Ferrell Jr.**, *School of Geography, Development and Environment, University of Arizona*  
*Subteam(s): Urban Environment*

Ken Ferrell Jr. graduated (M.S.) from the School of Geography, Development and Environment at the University of Arizona in 2025. Ken has a background in hydrology, spatial analysis and geomorphology, with some experience in civil and environmental engineering and sensors. His research interests include fluvial geomorphology, impacts of climate change on hydrology in urban and natural landscapes, predictive modeling and remote sensing. He is now a program specialist at Texas DWR.

**Zhongxing Deng**, *School of Civil, Environmental and Sustainable Engineering, Arizona State University*

*Subteam(s): Urban Environment, Recharge Enhancement/Alteration*

Zhongxing Deng is a graduate student in the Civil, Environmental and Sustainable Engineering (PHD) program at Arizona State University (ASU). He has a GIS background and obtains his bachelor's and master's degrees in GIS from Arizona State University. He has extensive experience in GIS applications and has worked in environmental ecology and surveying. He is currently interested in the combination of machine learning/deep learning and physical simulation. He is also very interested in how to use remote sensing and GIS technology to help achieve large-scale environmental monitoring.

**Muhammad Jawad**, *Department of Hydrology and Atmospheric Sciences, University of Arizona*  
*Subteam(s): Hydroclimate*

Muhammad Jawad is a PhD (Hydrology) Student in the Department of Hydrology & Atmospheric Sciences at the University of Arizona, with prior work experience in catchment hydrology, open channel hydraulics, GIS, and groundwater monitoring & mapping. He has passion for finding solutions of existing challenges in hydrological and hydraulic modeling, groundwater management, flood mapping, machine learning, and use of satellite precipitation products. Jawad has educational background in Civil Engineering, and he holds Masters degree in Hydroinformatics from IHE Delft Institute for Water Education, the Netherlands.

**Rayni Lewis**, *School of Earth and Sustainability, Northern Arizona University*

*Subteam(s): Forest & Natural Environments, Recharge Enhancement/Alteration*

Rayni Lewis is a graduate student in the Earth Sciences & Environmental Sustainability (PhD) Program in the School of Earth and Sustainability at Northern Arizona University. Rayni has a background in geology, geomorphology, and mathematics. Her research interests include hydrogeology, fluvial geomorphology, remote sensing applied to hydrology, and the impacts of land management on hydrogeologic systems.

**Sahar Mohsenzadeh Karimi**, *Department of Hydrology and Atmospheric Sciences, University of Arizona*

*Subteam(s): Hydroclimate*

Sahar Mohsenzadeh Karimi is a PhD student in the Atmospheric Sciences program at the Department of Hydrology and Atmospheric Sciences, University of Arizona, where she also holds

a minor in Statistics and Data Science from the Department of Mathematics. She has previously conducted research at the University of Tabriz, the University of Malaya (UM), and Simon Fraser University (SFU), where her work focused on understanding variability in hydrologic systems through numerical modeling. Her research interests center on climate and water systems, with an emphasis on bridging large-scale climate signals and local hydrologic responses to translate complex hydroclimate data into clear insights that support water resilience and informed decision-making.

**Abdul Wahed Nab**, *Department of Hydrology and Atmospheric Sciences, University of Arizona*  
*Subteam(s): Hydroclimate*

Abdul Wahed Nab is a PhD student in Hydrology at the Department of Hydrology and Atmospheric Sciences, University of Arizona. He holds a master's degree in water resources engineering and management from the UNESCO Madanjeet Singh Center for South Asia Water Management, Department of Civil Engineering, University of Moratuwa, Sri Lanka, with a background in Engineering Geology and Hydrogeology. His interdisciplinary expertise integrates water resources engineering, hydrology, and data-driven methodologies to address critical water resource challenges. His research interests include hydrological and hydraulic modeling in evolving landscapes, remote sensing for flood and water resource assessment, water balance and evapotranspiration analysis, groundwater recharge and storage dynamics, and machine learning applications in hydrology.

**Dominic Self**, *Department of Hydrology and Atmospheric Sciences, University of Arizona*  
*Subteam(s): Recharge Enhancement/Alteration*

Dominic Self is a graduate student (MS) for Hydrology in the University of Arizona's Department of Hydrology and Atmospheric Sciences. He received his bachelor's from Auburn University in geology, where his main areas of study were structural geology and geochemistry. His current research interests are groundwater chemistry, water-rock interactions, and groundwater modeling.

**Nathan Strom**, *Department of Hydrology and Atmospheric Sciences, University of Arizona*  
*Subteam(s): Urban Environment, Recharge Enhancement/Alteration*

Nathan Strom is a graduate student in the Hydrology (MS) Program within the Department of Hydrology and Atmospheric Sciences at the University of Arizona. Nathan received his BSc from the University of Minnesota Twin Cities. He has prior work experience in the hydrological monitoring of urban watersheds, water and soil quality analysis in agricultural settings, and the analysis of industrial air emissions. His research interests include surface-groundwater interactions, hydrogeology, the impact of urbanization on an area's watershed dynamics, and stream hydrology.

**Hossein Yousefi**, *Department of Hydrology and Atmospheric Sciences, University of Arizona*  
*Subteam(s): Hydroclimate*

Hossein Yousefi is a graduate student in the Hydrology and Water Resources (PhD) Program within the Department of Hydrology and Atmospheric Sciences at the University of Arizona. His academic background encompasses hydrology, human impacts, and climate change. His research focuses on hydrological modeling, machine learning, and remote sensing as applied to hydrology, with a specific emphasis on understanding the impacts of climate change on watersheds.

**Travis Zalesky**, *School of Geography, Development and Environment, University of Arizona*  
*Subteam(s): Recharge Enhancement/Alteration*

Travis Zalesky is now a graduate student at Arizona State University, having completed the Geographic Information Systems Technology (MS) Program in the School of Geography, Development and Environment at the University of Arizona. He earned his bachelor's degree in environmental science from Western Washington University. His background and research interests are in environmental science, data science, geospatial analysis, and remote sensing. Travis is passionate about using earth systems models to better understand the changing environment and guide data driven policy. He has recently worked with a UA research team on modeling evapotranspiration in the Phoenix metropolitan area under a wide range of climate scenarios.

### **Consultants**

**Dr. Laurel Lacher**, Principal, *Lacher Hydrological Consulting*

**Dr. Holly Richter**, Principal, *Resilient Rivers LLC*