



THE UNIVERSITY OF ARIZONA
COOPERATIVE EXTENSION
**WATER RESOURCES
RESEARCH CENTER**



WRRC 2023 Annual Conference

**WHAT CAN
WE DO?**

**SOLUTIONS TO
ARIZONA'S WATER
CHALLENGES**

JULY 11 – 12, 2023

University of Arizona Student Union
Grand Ballroom, Tucson, AZ

Photo: Stephen Cumberworth - "Rainfall", Tucson, AZ
WRRC 2022 Photo Contest



CONFERENCE SPEAKER/MODERATOR BIOS



**Free
non-interactive
livestreaming**

We respectfully acknowledge the University of Arizona is on the land and territories of Indigenous peoples. Today, Arizona is home to 22 federally recognized tribes, with Tucson being home to the O'odham and the Yaqui. Committed to diversity and inclusion, the University strives to build sustainable relationships with sovereign Native Nations and Indigenous communities through education offerings, partnerships, and community service.

Ricardo Aguirre, Director of Land Management and Water Security, WEST Consultants, Inc.



Ricardo Aguirre is a director with WEST Consultants, Inc. and is developing the land management and water security service line. Aguirre has 25 years of experience in civil engineering with primary skills in hydraulics, hydrology, stormwater infrastructure design, land

management, groundwater recharge, and project management. He works toward evolving the conventional engineering perspective by integrating natural processes into large-scale engineering. His primary professional focus is implementing functional design strategies to achieve multiple synergistic objectives, such as harvesting water and increasing soil organic matter to control excess flooding, reduce soil loss, improve water, soil, and air quality, recharge aquifers, prevent wildfires, provide passive irrigation for vegetation, control invasive species, lessen heat island effect, and sequester carbon in soil. Aguirre also has written papers that explore regenerative strategies as an alternative to traditional drainage engineering practices.

Stephanie Anagnoson, Director of Water and Natural Resources, Madera County, California



Stephanie Anagnoson is a geologist and serves as Water and Natural Resources Director for Madera County, California. She has worked for public and private water districts, including water wholesalers and water retailers. In her current role, Anagnoson works with

California's Sustainable Groundwater Management Act (SGMA), which fundamentally changed farming's relationship to groundwater in California. She is the manager of 220,000 acres within Madera County that have historically

not been represented by irrigation or water districts or had a surface supply. Anagnoson has introduced an allocation with penalties as well as robust recharge and land repurposing opportunities.

Frank Barbaro, Centralized Maintenance Manager/ Apprenticeship Committee Chairman, Central Arizona Project



Frank Barbaro completed his HVAC apprenticeship in 1999 through the International Union of Operating Engineers Local 30 in New York City. He began working for Central Arizona Project (CAP) in 2004 as an HVAC Technician, was promoted to HVAC-Fire Protection

Systems Supervisor in 2010 and then promoted to Centralized Maintenance Manager in late 2019. Barbaro serves as CAP's Apprenticeship Committee Chairman, where he collaborates with others to provide the necessary training and development required to become a successful HVAC technician journeyman. Barbaro achieved his Certified Reliability Leader certification in May 2019 and is currently working on his Certified Maintenance Reliability Professional certification.

Greg Barron-Gafford, Professor, School of Geography, Development & Environment, School Gardens Workshop, Biosphere 2, University of Arizona



Greg Barron-Gafford is an Earth system scientist who has been building the field of 'agrivoltaics' – the concept of co-locating agriculture and photovoltaics (renewable energy from solar panels). Barron-Gafford began this work in Southern Arizona studying the benefits across the food-energy-water nexus and over the years has

developed a national and international program connecting with researchers in Colorado, Africa, and the Middle East. Working to develop science-based solutions that help people adapt to the increasing pressures that come from a changing climate is a personal and professional goal of his.

Lisa Beutler, Executive Facilitator, Senior Principal, Stantec



Lisa Beutler is among the top strategic planning, public affairs, and public outreach professionals in the water industry. A leader with over 38 years of experience, she is nationally recognized for her work with public policy and stakeholders. Formerly the Associate

Director of the Center for Collaborative Policy at Sacramento State, and an American Water Resources Association past president, earlier in her career she was a state park ranger eventually assuming roles in special offices of two governors and as an agency undersecretary overseeing 50,000 employees and a \$3.5 billion dollar budget. She has a proven track record leading numerous complex, high-profile projects.

Rashi Bhushan, Postdoctoral Research Associate, University of Arizona



Rashi Bhushan is a postdoctoral research associate at the University of Arizona, College of Architecture Planning and Landscape Architecture (CAPLA). She is currently working on Net Zero Urban Water for the southwest U.S., which aims to achieve a sustainable water future for

the region. Bhushan's research is motivated by the impacts of climate change on freshwater availability and water resources systems operation. Her interests include hydrologic modeling, adaptive management under uncertainty, systems analysis, and multi-objective optimization. With her skills, Bhushan intends to address problems related to freshwater scarcity, water access inequity, and infrastructure operations under climate uncertainty.

Brian K. Biesemeyer, Executive Director, Scottsdale Water



Brian Biesemeyer is the Executive Director of Scottsdale Water and has held this position since 2012. From June 2015 to January 2017, Biesemeyer had the additional duty of being the acting City Manager for Scottsdale. He is a retired U.S. Army Lieutenant Colonel with over 30

years of organizational leadership experience. He is a registered professional environmental engineer and holds Arizona Department of Environmental Quality Grade 4 Operator Certifications in four disciplines. Brian is a State of Arizona Water Protection Fund Commissioner, a past president of WaterReuse Arizona, and a past board member of the WaterReuse Association.

George Bomar, Texas State Meteorologist (Ret.), Author



George Bomar has devoted his 46-year career in government to the development and use of cloud seeding technologies to help address Texas' growing demand for water. He worked with the Texas Legislature in establishing a statewide rain-enhancement program, at a cost of nearly \$30 million, that covered a quarter of Texas' land area by 2003. That initiative remains today as the largest in the U.S. and among the most productive in the world. Bomar has served as President of the national Weather Modification Association and Chairman of the North American Weather Modification Council.

Ben Cloud, CEO, Bidel AG Inc.



Ben Cloud is a Co-Founder of Bidel AG Inc and became CEO in 2019. Bidel AG works to reduce water use through Microbial Soil Reclamation. Increasing the flow of carbon in soil to raise organic carbon levels during crop production can dramatically increase the water holding capacity and water use efficiency.

Xochitl Coronado-Vargas, Public Outreach Coordinator, City of Tucson



Xochitl Coronado-Vargas serves as Public Outreach Coordinator with the City of Tucson's Storm to Shade program. She engages with the public during design, construction, and maintenance of green stormwater infrastructure (GSI) throughout the prioritized areas of the

City. Coronado-Vargas holds a master's degree in public health and has worked for various non-profit and public-service organizations to bring about positive health and educational outcomes to underserved and marginalized communities. In her spare time, she enjoys spending time with her family, cooking, hiking, and dancing.

Susan Craig, Program Director, ASU Global Institute of Sustainability and Innovation



Susan Craig, Program Director for ASU's Global Institute of Sustainability and Innovation, is leading the Impact Water – Arizona program, part of the Arizona Water Innovation Initiative to foster community understanding and engagement in Arizona's water challenges

and solutions. Previously, Craig worked for ASU's Kyl Center for Water Policy at the Morrison Institute for Public Policy, driving projects on water resilience, such as the award-winning Arizona Water Blueprint, an interactive tool providing information to empower inclusive and informed decision-making. Having worked for Arizona's three primary state water agencies, the Arizona Department of

Environmental Quality, Arizona Department of Water Resources, and Water Infrastructure Finance Authority, Craig has extensive knowledge of the state's water issues, policies, and players. She is passionate about contributing to the solution space and making an impact in securing Arizona's water future.

Maria Dadgar, Executive Director, Inter Tribal Council of Arizona



Maria Dadgar is an enrolled member of the Piscataway Tribe of Accokeek, Maryland. She is Executive Director of the Inter Tribal Council of Arizona (ITCA), a Tribal consortium of 21 of the 22 Tribes in Arizona and one of the oldest and largest inter-Tribal organizations in the U.S. In

her more than 20-year career in higher education, non-profit executive management, and Tribal economic development, she has been involved in advocating on behalf of Tribal nations. She has advocated for public policies and legislation regarding economic development, American Indian health policy, environmental justice, and American Indian education. Starting in non-profit management as Co-Founder/National Program Coordinator of Washington Internships for Native Students (WINS) at American University in Washington, DC, which was selected as one of "America's Best Practices," by President Clinton's Race Relations Commission for Outstanding Educational/Work Experience Opportunity for American Indian College Students. Dadgar holds an AA in Journalism/Mass Communications from Prince George's Community College in Largo, Maryland, a BA in Liberal Studies from American University, and an MBA from Grand Canyon University in Phoenix.

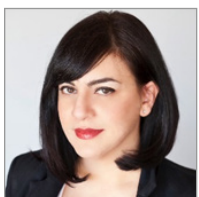
Patrick Dent, Assistant General Manager, Water Policy, Central Arizona Project



Patrick Dent is CAP's Assistant General Manager over Water Policy and has been with CAP for 23 years. He is responsible for long-range planning, policy analysis, development, and program implementation for the CAP service area, the Colorado River, and the Central

Arizona Ground Water Replenishment District (CAGRDR).

Natalie DeRoock, Senior Public Information Officer, Director's Office, Tucson Water

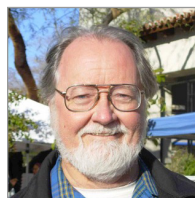


Natalie DeRoock is Senior Public Information Officer for Tucson Water. She is a former public affairs strategist for the U.S. Department of State. DeRoock served overseas, where she amplified global programming for research partnerships, economic development, and higher

education and directed the national Fulbright Program. She was also the co-recipient of a National Science Foundation

award for best practices in cross-disciplinary STEM education at the University of Arizona. She is a natural multicultural communicator and is best known by colleagues as a "water diplomat."

Tres English, President, Sustainable Tucson



Tres English is a longtime Tucsonan and residential property manager with a degree in Engineering Physics. He has been heavily involved in a wide variety of local sustainability issues, including as a member of three comprehensive planning efforts by the city and Pima County,

Co-chair of PAG regional transportation planning committee, and Co-founder and President of Sustainable Tucson. He designed and built experimental aquaponics and wicking bed garden systems, built six active water harvesting systems, created a documentary on Tucson's water future, produced a study of Pima County's 200,000 aging, uninsulated pre-1980s homes, and organized high school and adult home repair training programs. He is currently working with Pima College, City of Tucson, and Pima County to develop the capacity to train the workforce to repair the aging housing stock.

Amelia Flores, Chairwoman, Colorado River Indian Tribes



Chairwoman Amelia Flores is Mohave and an enrolled member of the Colorado River Indian Tribes (CRIT). In 2020, she was elected as the CRIT's first Chairwoman. Previously, she served as CRIT Tribal Councilwoman from 2013 to 2020 and as Tribal Council Secretary for two two-year

terms (2013 – 2015 and 2017 – 2020). Since 2011, she also has served as a Board Member of the Parker Unified School District #27. A former Tribal Librarian/Archivist, she has volunteered her time serving on local, Tribal, and state committees, boards, and commissions. She was appointed to the 2021 Governor's Water Augmentation Board and served by appointment on Arizona First Things First, Early Childhood Development and Health Board from 2018 – 2020. She has received many awards for her Library/Archives and Language work and recently was recognized as 2021 Leader of the Year – Environment/Public Policy by the Arizona Capitol Times. She holds a BS in Education from Northern Arizona University and a master's in Linguistics from the University of Arizona.

Sarge Green, Water Management Specialist, California Water Institute at Fresno State University



Sarge Green is a water management specialist at Fresno State University. He has been with FSU for 14 years. He is currently a part-time research scientist for the water programs at Fresno State. Green previously served as Director of the Center for Irrigation Technology and Associate

Director of the Water Resources and Policy Initiatives program for all 23 CSU Campuses. His current professional

affiliations include serving on the Board of Directors of the Fresno Metropolitan Flood Control District, the Tule Basin Land and Water Conservation Trust, and the Association of California Water Agencies.

Neha Gupta, Assistant Research Professor, Arizona Institutes for Resilience, University of Arizona



Neha Gupta is an assistant research professor in the Arizona Institutes for Resilience at the University of Arizona working on urban hydrological and water resource management issues. She participates in and conducts research on using stormwater as a resource, green

infrastructure in arid urban environments, and interdisciplinary approaches to evaluating and addressing water supply and demand imbalances. Prior to joining the University of Arizona, Gupta worked as an environmental consultant on contaminated soil and groundwater issues.

Lauren Hixson, P.E., Water Resources Manager, Town of Gilbert



Lauren Hixson is Water Resources Manager for the Town of Gilbert. Since coming to Gilbert, she has helped lead the Town's sustainable operations vision to reduce groundwater pumping and played a key role on the update to the Town's local water shortage response plan. She

has 11 years of experience in the water industry with a background in water resource planning and water/wastewater design and engineering. Hixson earned a BS in Civil Engineering from the University of Arizona and is a registered professional engineer. She is passionate about supporting the community by managing water resources wisely and efficiently from policy to operations.

Joseph Hoover, Assistant Professor, Department of Environmental Science, Indigenous Resiliency Center, University of Arizona



Joseph Hoover is an assistant professor in the Department of Environmental Science and core-faculty affiliate of the Indigenous Resiliency Center at the University of Arizona. His line of research emphasizes integration of community-engaged research approaches with geospatial

technology to address environmental health challenges with Indigenous and underserved communities. He co-directs the Center for Native Environmental Health Equity Research based at the University of New Mexico and co-leads the Native EH Equity Center Community Engagement and Dissemination Core. He earned a BS in Environmental Science from Northwestern University, a master's in Geography from the University of Arizona, and a PhD in Geography from the University of Denver. He joined the UArizona faculty in Fall 2022.

Sterling Johnson, Co-Director, Ajo Center for Sustainable Agriculture



Sterling Johnson is Co-Director of the Ajo Center for Sustainable Agriculture, a 501 c3 Native American-governed community-based non-profit organization, and a member of the Tohono O'odham Nation. With a background in ranching and rodeo, he started his career

in agriculture as a farmer apprentice in 2011 at Tohono O'odham Community Action (TOCA). He went on to serve as Farm Manager, Mentor, and Educator at the Ajo Center for almost a decade and has been a co-director for a year. His work focuses on revitalization of traditional O'odham agricultural practices and seeds, removing barriers to access to healthy nutritious foods, and providing economic opportunities, including youth internships, beginning farmer training, and mini grants. Johnson is a culture bearer and mentor for O'odham agriculture and himdag (way of life), working for an organization that firmly believes that Ak-chin Oidag (Mouth of the Wash Farming) or dryland farming practices of the Tohono O'odham people are a key to creating a climate smart agriculture future for all.

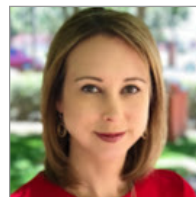
Jason Jones, Senior Scientist, Arizona Department of Environmental Quality



Jason Jones is the Clean Water Act monitoring and assessment coordinator for the Arizona Department of Environmental Quality. Jason started as a permit writer in 2001. Since then, he has led Arizona's programs for groundwater, wetlands, fish tissue, and lakes and

streams. His recent projects include a probabilistic assessment of fish tissue contaminants in Arizona lakes and an application that interactively displays exceedances of water quality portal data.

Erin Jordan, Value Stream Manager, Arizona Department of Environmental Quality



Erin Jordan is a value stream manager in the Water Quality Division at the Arizona Department of Environmental Quality. She has a PhD in Arid Lands Resource Sciences from the University of Arizona and undergraduate degrees in Geosciences, Botany, and Communications from Miami

University and Mississippi State University. Joining the agency in 2017 as the media administrator, Erin moved into her current role of managing the team monitoring, assessing, and enhancing surface water quality in Arizona in 2020.

John Kmiec, Director, Tucson Water



John P. Kmiec is the Director for Tucson Water. His career spans several decades with an emphasis on water resource management, utility leadership, and water quality challenges. Throughout his career, and during his tenure as Director of Marana Water (2012-2019), he amplified efforts to shape Arizona's long-term vision and policy about sustainable water supplies, water quality, and the principle that all water has value. As a strategic and tactical leader, Kmiec served as an appointed member of Governor Ducey's Water Augmentation, Innovation, and Conservation Committee and currently sits on Governor Hobb's Water Policy Council. Kmiec is also a member of the Board of Directors for the National WaterReuse Association and the AZ Water Association Board.

Jim Leenhouts, Center Director, United States Geological Survey Arizona Water Science Center



Jim Leenhouts is Center Director of the USGS Arizona Water Science Center (AZWSC). The AZWSC has a mission to produce stakeholder-driven water data and investigations that support informed decisions by water resource managers. Leenhouts joined the AZWSC as a Hydrologist in 2000 and has overseen a variety of science projects, including San Pedro River Basin investigations, USGS work in the Upper Verde River Basin, aspects of the Transboundary Aquifer Assessment Program, and most recently, USGS participation in the Minute 323 Colorado River Delta restoration. He has an undergraduate degree in Geology from Oberlin College and MS and PhD degrees in Hydrology from University of Arizona.

Stephen Roe Lewis, Governor, Gila River Indian Community



Stephen Roe Lewis has been Governor of the Gila River Indian Community since being elected in 2014. He was raised in Sacaton, "Gu-u-Ki", on the Gila River Indian Community. His parents are Rodney B. and Willardene Lewis. His paternal grandparents were Rev. Roe Blaine and Sally Lewis, and his maternal grandparents were Willard and Catherine Pratt. As Governor, he oversees the implementation of the Community's Water Settlement of 2004 (the largest water settlement of its kind in U.S. history). He also serves on the Board of Directors for the Native American Rights Fund, the Executive Board for the National Indian Gaming Association, and the Board of Trustees for the Heard Museum of Phoenix. Governor Lewis advocates for renewable and green technologies guided by O'otham agricultural history and cultural teachings. He was the first Native film curator for the Sundance Film Festival in Park City, Utah, and was an Associate Producer for the groundbreaking and critically acclaimed TBS six-part feature documentary, "The Native Americans." Governor Lewis

graduated with a BS from Arizona State University and pursued graduate studies at John F. Kennedy School of Government at Harvard University.

Jing Luo, Vice President, Apex Applied Technology



Jing Luo has over 20 years' extensive experience working in the water industry. She is a professional engineer in Arizona. After graduating with a PhD in Environmental Engineering from the University of Arizona in 2003, she worked as a civil engineer and civil engineering manager for Pima County RWRD, Sr. Civil Engineer for the City of Mesa, and City Engineer for the City of Sierra Vista. She is now Director of Marana Water. In 2010, Luo founded Apex Applied Technology, Inc., a professional consulting firm providing active outreach and technical assistance to socially disadvantaged groups and communities.

Megan Martin, Senior Analyst, Water Rights & Contracts, Salt River Project



Megan Martin has been working on natural resources and water policy in various capacities for over a decade. Most recently, she joined Salt River Project's Water Rights & Contracts group as a senior analyst, where she is responsible for analyzing water resources issues throughout Arizona. Prior to this role, she was a member of SRP's State Government Relations team, focusing on water, energy and natural resources issues at the Arizona Legislature. Martin got her start in policy as an intern at the Arizona Legislature and has served in various roles at the Capitol working on natural resources and water issues. She has an undergraduate degree from Arizona State University and a JD from Gonzaga School of Law.

Natalie Mast, Active Management Areas Director, Arizona Department of Water Resources



Natalie Mast is the Active Management Areas (AMA) Director at the Arizona Department of Water Resources (ADWR). Natalie and her team are responsible for ongoing AMA activities (such as annual reporting, data compilation and analysis, conservation program management, etc.) and are working to establish the necessary structures for the new Douglas AMA and Hualapai Valley INA. Natalie also provides support for the team developing the water supply and demand assessments required by recent legislation. Natalie has been with ADWR since 2016, previously serving in Statewide Planning, as the Data and Planning Manager for the AMAs, and leading the team that developed, drafted, and adopted the 5th Management Plans.

Juliet McKenna, PG, Principal Hydrogeologist, Montgomery & Associates



Juliet McKenna is a hydrogeologist and water planning consultant with Montgomery & Associates, a water resources consulting firm headquartered in Tucson. McKenna helps clients in the municipal, Tribal, and nonprofit sectors navigate challenging waters through regulatory and policy guidance, water portfolio planning, and hydrogeologic investigations. She is a member of the UArizona Water Resources Research Center Advisory Board, the City of Tucson Citizen's Water Advisory Committee, and Co-Chair of the Water Resources Committee of AZ Water.

Sharon B. Megdal, Director, Water Resources Research Center, University of Arizona



Sharon B. Megdal is Director of the University of Arizona Water Resources Research Center, an Extension Center and research unit in the College of Agriculture and Life Sciences. She is also Professor of Environmental Science, C.W. & Modene Neely Endowed Professor, and Distinguished Outreach Professor. The geographic focus of her water policy and management work ranges from local to international. Current research projects focus on groundwater governance, managed aquifer recharge, and transboundary aquifer assessment. Engagement efforts include Indigenous Water Dialogues and Diversifying Voices in Water Resources. Megdal endeavors to bridge the academic, practitioner, and civil society communities. Recently, she completed 12 years as an elected member of the Central Arizona Project Board of Directors, and she is active in many professional organizations. Past state-level public service activities include the Arizona Corporation Commission, the State Transportation Board, the Arizona Medical Board, and several other boards and commissions. Sharon Megdal holds a PhD in Economics from Princeton University.

Leslie Meyers, AGM & Chief Water Resources and Service Executive, Salt River Project



Leslie Meyers is Associate General Manager & Chief Water Resources Executive at Salt River Project. She joined SRP in 2022, with more than 30 years of water resources management experience in Arizona and the southwest. Throughout her career, Meyers has worked on strategic initiative planning and implementation with federal, state, and local governments, Tribes, irrigation districts, non-governmental organizations, and others. She received a BS in Civil Engineering from Texas A&M University and is a registered Professional Engineer.

Raluca Mihalcescu, Water Conservation Coordinator, Arizona Water Company



Raluca Mihalcescu grew up in Alaska and moved to Arizona with her family in 2009. She received her undergraduate degree in Environmental Resource Management and a master's in Innovation and Venture Development, both from Arizona State University. She worked for the City of Tempe's Water Conservation Program for just under three years before joining Arizona Water Company as the company's first dedicated water conservation specialist. In the two years she has been with the company, she has spearheaded the launch of five Integrated Demand Management Programs, providing additional conservation resources for just over 60% of Arizona Water customers. Mihalcescu loves the fast-paced environment and challenges of her current job Arizona Water Company's Water Conservation Coordinator.

Rachel O'Connor, Manager, Climate Resilient Water Systems, Environmental Defense Fund



Rachel O'Connor, Manager with Environmental Defense Fund's Water Program, has spent over a decade working across the western U.S. advancing the sustainable use of water resources through implementing policies and management practices that support communities and ecosystems. She works collaboratively across sectors to enable increased and equitable access to data and information to advance more inclusive development and implementation of durable water solutions. Prior to joining EDF, O'Connor consulted for organizations across the West on water transaction program design and water management decision support tools. She holds a master's in environmental science and management from the Bren School at UC Santa Barbara.

Ethan Orr, Director, Water Irrigation Efficiency, Cooperative Extension, University of Arizona



Ethan Orr is a fourth-generation Arizonan. He is an associate professor in Community Development and Associate Director for Agriculture, Natural Resources and Economic Development at the University of Arizona. He oversees the \$45 million on-farm water irrigation efficiency program. He has served in the Arizona State Legislature and in senior economic development positions at the municipal level. He started the Empowerment Zone in Pima County, which has generated over \$500 million in tax credits and supported downtown revitalization. In his leadership role at UArizona, he is active in programming addressing forest health, watershed management, and crop production.

Jessie K. Pearl, Freshwater Scientist, The Nature Conservancy



Jessie K. Pearl provides scientific support to inform freshwater conservation planning, strategies, and priorities at the Arizona chapter of The Nature Conservancy. Additionally, she develops and pursues research that anticipates future changes in climate, hydrology, and

ecosystem resilience and demonstrates impacts of conservation practices at regional scale. Ultimately this research is used to catalyze policies, funding, and partnerships. Pearl received her PhD in Geosciences with a minor in Global Change from the University of Arizona. Her background is in paleoclimate, geochronology, and dendrochronology. Her dissertation and postdoc work used tree-ring records to reconstruct climate and extreme events in the northeastern and northwestern United States.

Karen Peters, Director, Arizona Department of Environmental Quality



Karen Peters is an Arizona lawyer and veteran public manager; most recently having served as a deputy city manager for the City of Phoenix. She has over 30 years of experience in environmental and water law and policy and helped write Arizona laws and regulations on critical issues like

protecting rivers and streams, cleanup of groundwater and soil contamination, and air quality. She earned her undergraduate degree from Arizona State University, studied law at Georgetown University, then returned to Arizona to begin her career.

Chuck Podolak, Director, Water Infrastructure Financing Authority of Arizona



Chuck Podolak is Director of the Water Infrastructure Finance Authority of Arizona, where he leads an agency tasked with helping Arizona residents secure clean and reliable water supplies into the future. Prior to joining WIFA, Podolak led a team at Salt River Project focused on

addressing water conflicts throughout the state. He also served as Natural Resources Policy Advisor to two elected officials - Governor Doug Ducey and Senator Jeff Flake. In those roles he was responsible for policy and legislation relating to Arizona's water, land, environmental quality, wildlife, agriculture, and energy issues. Podolak has a Bachelor's degree from the U.S. Air Force Academy and a PhD in river sciences from Johns Hopkins University.

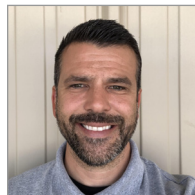
Nazario Prieto, Assistant Water Services Director, City of Phoenix



Nazario is an assistant director at Phoenix Water, overseeing and managing the city's wastewater utility, including the Treatment, Collection, and Engineering Divisions. He has over 17 years of experience at the City of Phoenix, 15 of which have been in the Water Services

Department. Prior to coming to Phoenix, Nazario worked for three years at the Metropolitan Water District of Southern California in Los Angeles. He has a Civil Engineering degree from the University of Texas El Paso and is a registered professional engineer in Arizona.

David Proctor, Vice President, BKW Farms



David Proctor is the Vice President of BKW Farms, a third-generation family farm in Marana, Arizona. Growing up on the Wong's farm, he took an early interest in sustainable agriculture. He is passionate about controlled environment agriculture and the role it will play for future

generations. Utilizing controlled environment growing techniques, Proctor developed and heads BKW's USDA organic mushroom operation, which provides fresh, local varieties of oyster mushrooms year-round.

Robert Pulliam, President, Tubular Rail Inc.



Robert Pulliam is a semi-retired inventor and entrepreneur who holds several patents. He studied Urban Planning and Economics at Michigan State University; his professional career involved handling hazardous materials, logistics, and maritime construction. Pulliam has an

interest in water-related issues caused by population growth and our changing climate. He believes there are cost effective and achievable engineering solutions for many of our environmental concerns and that these solutions can be market based and turn a profit. He is also interested in public policy and the roadblocks to innovation.

Terry Rambler, Chairman, San Carlos Apache Tribe



Terry Rambler is a member of the San Carlos Apache Tribe and is fluent in the Apache language. In 2010, he was elected Chairman of the San Carlos Apache Tribe, with subsequent re-elections in 2014, 2018, and 2022. He is currently serving his fourth consecutive term. Chairman

Rambler has also served as Chairman and Vice Chairman of the Arizona Indian Gaming Association (AIGA), President and Vice President of the Inter-Tribal Council of Arizona (ITCA), President and Vice President of the Inter-Tribal Association of Arizona (ITAA), Vice President and Secretary/Treasurer of the

Apache Alliance, and was appointed by Department of Interior Secretary Deb Haaland to serve on her Secretary's Tribal Advisory Committee.

Robert C. Robbins, President, University of Arizona



Robert C. Robbins assumed his position as the 22nd president of the University of Arizona on June 1, 2017. Previously, he served as president and CEO of the Texas Medical Center (TMC) in Houston from 2012 to 2017. In this role, he significantly enhanced TMC's commitment to

collaboration, introducing five cross-institutional research initiatives centered on innovation, genomics, regenerative medicine, health policy and clinical research. While at the University of Arizona, Robbins has led the creation and implementation of a strategic plan focused on the opportunities and challenges presented by the Fourth Industrial Revolution, the convergence of biological, and digital and physical technologies and sectors. Designed to amplify Arizona's competitiveness on the world stage, the plan emphasizes the university's strengths as a public, land-grant research university with global reach and a rich history of international collaboration.

Joshua Ruddick, Community Outreach, AZ Project WET



Josh Ruddick is an experienced educator and business executive. After he spent 15 years in the health care industry running business operations and consulting for large consortiums of insurance companies, he returned to school. He graduated with a master's degree in

Secondary Science Education in 2012 from the University of Arizona and subsequently became a certified teacher for Biology, Earth and Space Science, and Career and Technical Education. During his teaching career, Ruddick established a program in sustainable agriculture and natural resource management and was recognized locally and internationally for his work with students and the community.

Debankur Sanyal, Soil Health Specialist, Environmental Science, University of Arizona



Debankur Sanyal is an assistant professor and soil health specialist at the Department of Environmental Science, University of Arizona. As a researcher, he specializes in soil biogeochemistry at multiple scales as impacted by various plant-soil-microbe-climate interactions,

using approaches that range from laboratory incubations to greenhouse trials to extensive field trials. His current research focuses on soil health best management practices under environmental stresses like drought, salinity, and heat. Sanyal runs a statewide soil health research and extension program as he seeks climate-smart agronomic solutions for commercial growers and agricultural industries in Arizona.

He spends a significant amount of time testing and evaluating existing and novel soil health conservation tools and techniques.

Kim Schonek, Arizona Water Program Director, The Nature Conservancy



Kimberly Schonek is the Arizona Water Program director for The Nature Conservancy with more than 14 years of experience focusing on water management in the Verde River and San Pedro River basins. Previously, Schonek worked with the Oregon Water Trust, U.S.

Forest Service, and City of Portland. She holds a master's degree in environmental management with an emphasis in hydrology.

Selwyn Sekaquaptewa, Water Utility General Manager, Hopi Utilities Corporation



Selwyn Sekaquaptewa is the Water Utility General Manager for the Hopi Utilities Corporation. He manages the Hopi Arsenic Mitigation Project that built the new Hopi Regional Water System. He currently manages three staff people and is charged with growing the water and

wastewater aspect of this utility. Sekaquaptewa began his career in 1999 as a water operator for Kykotsmovi Village. In 2014, he was recognized as "Tribal Water Operator of the Year" by the Inter-Tribal Council of Arizona. In 2019 he became Construction Control Inspector for the Indian Health Service, Office of Environmental Health and Engineering.

Noah Silber-Coats, Postdoctoral Fellow, USDA Southwest Climate Hub



Noah Silber-Coats is a postdoctoral fellow with the USDA Southwest Climate Hub, where his work focuses on identifying effective solutions to water scarcity for the region. He leads development of the Water Adaptation Techniques Atlas (WATA), an online tool that documents these

solutions. Prior to joining the Hub, he completed a PhD in the School of Geography, Development, and Environment at the University of Arizona, where his dissertation focused on the political economy of legalized cannabis agriculture in Oregon. He has also conducted research on agave agriculture and spirits in Sonora and on conflicts over governance of hydropower development in central Mexico.

Jeff Silvertooth, Professor & Extension Specialist, Agronomy & Soil Science, Department of Environmental Science, University of Arizona



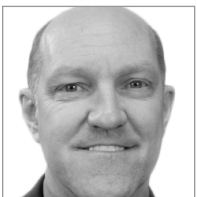
Jeff Silvertooth conducts a program directed towards the development of irrigated crop production management strategies that optimize the soil-plant system agronomically, economically, and environmentally. Principal areas of operation for this desert agriculture program include studies of soil-plant relationships, particularly regarding nutrient and water requirements for cotton, chiles, cantaloupes, and other regional crops, and salinity and sodicity management in agricultural soils. Silvertooth has been recognized as a Fellow by both the American Society of Agronomy and Soil Science Society of America.

Faith Sternlieb, Associate Director of Engagement, Internet of Water, Center for Geospatial Solutions, Lincoln Institute of Land Policy



Faith Sternlieb is the associate director of engagement for the Internet of Water (IoW) initiative at the Center for Geospatial Solutions, Lincoln Institute of Land Policy, where she facilitates the IoW Coalition and fosters public-private partnerships from local to international scales to support water data modernization. She holds degrees in anthropology, agricultural, and earth sciences, and she has 15 years of experience working with stakeholders at the nexus of water science, policy, and technology in the Colorado River Basin. Sternlieb aims to help diverse communities achieve environmental justice, water sustainability, and climate resilience through appropriate technology, smart design, collaboration, sound science, and political resolve.

William Swanson, P.E., Global Practice Leader, Water Resources, Stantec



Bill Swanson leads the water resources planning practice for Stantec and has nearly four decades of experience leading complex water resource projects that address water supply, flood control, and environmental protection. He is adept at integrating technical, economic, financial, and institutional information to support decision-making and permitting. He excels at communicating information in clear and understandable terms to agencies, stakeholders, and the public. Bill is a member of the American Water Resources Association, a registered professional engineer in California and Texas, and holds a BSCE from State University of New York.

John Take, P.E., Executive Vice President, Chief Growth & Innovation Officer, Stantec



As Executive Vice President and Chief Growth & Innovation Officer, John oversees the activities of Stantec's five business operating units with a focus on strategic growth initiatives and campaigns, business-building innovation, client relationships and development, and key account management. John previously led Stantec's water business and has been involved in hundreds of water planning and design projects locally in Tucson and around the world in both the municipal and industrial sectors over the past 30 years. Take is a member of the AZ Water Association, the Water Environment Federation, and the U.S. Water Alliance, where he currently serves on the Board of Directors and champions the One Water movement. John has an active commitment to community and is proud to serve as a member of the Arizona Coyotes Foundation Board. He is an active corporate sponsor and supporter of Water For People, as well as enabling and equipping organizations focused on delivering education, training, and micro-loan funded support for the refugee and immigrant community in Southern Arizona.

Elia Tapia-Villaseñor, Faculty Professor, University of Sonora



Elia Tapia is a faculty professor at the University of Sonora in Hermosillo, Mexico. She holds a PhD in Arid Lands Resource Sciences with a minor in Hydrology from the University of Arizona. Tapia has 13 years of experience in applied hydrology, hydrogeology, climate change studies, and disaster risk assessment. She has been contributing to the United States-Mexico efforts on the Transboundary Aquifer Assessment Program (TAAP) for over 12 years, among many other projects for private and public institutions in the United States, Latin America, and the Caribbean. Her areas of interest involve water governance, climate change, stakeholder engagement, and water resources management, particularly in transboundary settings.

David Wegner, Senior Strategic Consultant, Woolpert



David Wegner is a Senior Strategic Consultant with Woolpert, an architecture, engineering, geospatial, and strategic consulting firm. Wegner is a biological scientist and engineer based in Tucson, a member of the Water Science and Technology Board of the National Academies of Sciences, Engineering, and Medicine and EPA Environmental Finance Board, and serves as a mentor advisor for the International Association of Hydro-Environment Engineering and Research organization. He has served as senior principal investigator or the equivalent on dozens of water and environmental studies conducted on behalf of the U.S. Army Corps of Engineers Civil Works program, BLM, DOI,

BOR, FWS, NOAA, and EPA agencies. For 14 years he served as Program Manager for the Glen Canyon Environmental Studies in the Grand Canyon that led to first EIS on the operations of Glen Canyon Dam and established the scientific and governance strategy that exists today as the Grand Canyon Adaptive Management program. Wegner has provided scientific and engineering support as a member of the senior staff for the U.S. House of Representatives and continues to serve as technical and policy counsel to several members of Congress and their staff.

Grant Weinkam, Associate Environmental Science Specialist, Arizona Department of Environmental Quality



Grant Weinkam has over fifteen years of experience with lab and field based applications of environmental chemistry, biology, and engineering principles to improve water quality and public health. Currently, he is the subject matter expert for the Sampling and Source Identification

Unit in the Surface Water Improvement Section of the Arizona Department of Environmental Quality. Projects focus on Total Maximum Daily Load (TMDL) development and involve analyses of the fate and transport of contaminants in surface water, groundwater, wastewater, and soil systems to improve the quality of rivers, streams, and lakes in Arizona.

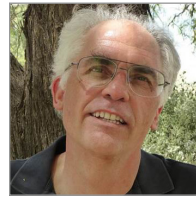
Mark Witten, Research Scientist, University of Arizona



Mark Witten is an Emeritus Professor of Pediatrics at the University of Arizona serving in the Department of Pediatrics for 25 years. He has been a Research Scientist in the UArizona College of Agriculture & Life Sciences for the past four years. His “low-energy” desalination technology was

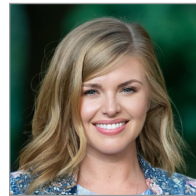
developed while conducting research for the U.S. Air Force Office of Scientific Research.

Gary Woodard, Principal, Water Resources Consulting



Gary Woodard has more than 40 years of experience both as a consultant and as a researcher at the University of Arizona. He specializes in integrating economic analysis with water resources issues, providing a critical bridge often missing from policy decisions. He applies his “toolkit” — econometric modeling, benefit-cost analysis, policy analysis, survey techniques, and legal analysis — to projects that involve modeling municipal water demand, forecasting trends, evaluating water portfolios, valuing water rights, and assessing water conservation programs. Woodard’s clients include municipalities, water companies, water wholesalers, Tribes, developers, water regulators, conservation groups and other not-for-profits.

Richael Young, Senior Economist, ERA Economics, LLC



Richael Young is a senior economist at ERA Economics. She applies complementary skill sets in economics and engineering to develop innovative technology solutions for water management. She led the development and implementation of the first smart

markets, or electronic clearinghouses, for surface water and groundwater, has consulted on the design of water trading programs across the western United States, and took to market a mobile app that helps growers manage complex groundwater allocations without new hardware. Young is passionate about helping water users reduce their water risk while meeting their regulatory obligations and sustainability goals.



**Free non-interactive
livestreaming**