



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



TUESDAY, JULY 11, 2023

9:30-10:30	REGISTRATION AND REFRESHMENTS
10:30-10:40	<p>Welcome</p> <ul style="list-style-type: none"> • Sharon B. Megdal, Director, Water Resources Research Center, The University of Arizona • Robert C. Robbins, President, The University of Arizona
10:40-11:10	<p>Keynote: Protecting Water Quality in Arizona</p> <ul style="list-style-type: none"> • Karen Peters, Director, Arizona Department of Environmental Quality
11:10-12:10	<p>Session 1: Addressing Water Quality</p> <ul style="list-style-type: none"> • Erin Jordan, Arizona Department of Environmental Quality, <i>How Is Surface Water Quality Protected in Arizona?</i> • Jason Jones, Arizona Department of Environmental Quality, <i>Assessing the Health of Arizona's Waters</i> • Grant Weinkam, Arizona Department of Environmental Quality, <i>Prioritizing Restoration of Arizona's Impaired Waters</i> • Joseph Hoover, University of Arizona, <i>Using Mobile Applications to Visualize Water Quality Data for Underserved Communities</i> <p>Moderator: Natalie DeRoock, Tucson Water</p>
12:10-1:10	LUNCH
12:50-1:10	<p>Luncheon Keynote: Central Arizona Project Response to Shortages</p> <ul style="list-style-type: none"> • Patrick Dent, Assistant General Manager, Water Policy, Central Arizona Project



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<p>1:10-2:10</p>	<p>Session 2: Filling Information Gaps</p> <ul style="list-style-type: none"> • Rachel O’Connor, Environmental Defense Fund, <i>OpenET: Filling a Critical Data Gap for Sustainable Water Management</i> • Noah Silber-Coats, USDA Southwest Climate Hub, <i>The Water Adaptation Techniques Atlas: A Catalog of Solutions for the Southwest</i> • Jessie Pearl, The Nature Conservancy, <i>Success of Water Conservation Actions in Arizona</i> • Faith Sternlieb, Lincoln Institute of Land Policy, <i>Overview of the Internet of Water (IoW) Coalition and Update on Core Technology</i> <p>Moderator: Jim Leenhouts, Arizona Water Science Center, US Geological Survey</p>
<p>2:10-3:10</p>	<p>Session 3: Improving Farming Practices</p> <ul style="list-style-type: none"> • Sterling Johnson, Ajo Center for Sustainable Agriculture, <i>Tohono O’odham Traditional Dryland Farming and Crops - Lessons to be Learned for Arizona Water Challenges</i> • Ethan Orr, University of Arizona, <i>University of Arizona Cooperative Extension’s Water Irrigation Efficiency Program</i> • Ricardo Aguirre, WEST Consultants, Inc., <i>A Solution for Long-Term Water Security in the Southwest</i> • Debankur Sanyal, University of Arizona, <i>Soil Health Management Under Water Limited Environments</i> <p>Moderator: Jeff Silvertooth, University of Arizona</p>
<p>3:10-3:25</p>	<p>SPONSOR VIDEOS — NETWORKING BREAK</p>
<p>3:25-3:55</p>	<p>Keynote: Managing Groundwater in Arizona</p> <ul style="list-style-type: none"> • Natalie Mast, Active Management Areas Director, Arizona Department of Water Resources
<p>3:55-4:55</p>	<p>Session 4: Working with Nature</p> <ul style="list-style-type: none"> • Sarge Green, California Water Institute at California State University Fresno, <i>Optimizing Watershed Conditions for Sustainability</i> • Kim Schonek, The Nature Conservancy Arizona, <i>Opportunities for Stormwater Recharge in Arizona: Augmentation and Streamflow Benefits</i> • Xochitl Coronado-Vargas, Tucson Water, <i>Tucson’s Green Stormwater Infrastructure Program</i> • Neha Gupta, University of Arizona, <i>Opportunities to Enhance Recharge in Arizona: A Tri-University Study</i> <p>Moderator: Megan Martin, Salt River Project</p>
<p>4:55-5:00</p>	<p>CLOSING REMARKS - END OF DAY 1</p>
<p>5:30-7:00</p>	<p>RECEPTION - Gentle Ben’s Brewing Company, 865 E University Blvd</p>

WEDNESDAY, JULY 12, 2023

8:00-9:00

REGISTRATION AND REFRESHMENTS

9:00-9:05

Welcome

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

9:05-10:00

Keynote Panel: The Importance of Tribal Consultation for Solutions

- **Amelia Flores**, Chairwoman, Colorado River Indian Tribes
- **Stephen Roe Lewis**, Governor, Gila River Indian Community
- **Terry Rambler**, Chairman, San Carlos Apache Tribe

Moderator: Sharon B. Megdal, University of Arizona

10:00-11:15

Session 5: Adapting Policy

- **Elia Tapia**, University of Sonora, *Transboundary Aquifers*
- **Rashi Bhushan**, University of Arizona, *Identifying Policy Barriers Towards a Net Zero Urban Water Future in Southwestern US*
- **Tres English**, Sustainable Tucson, *Sustaining Tucson - Living Within Our Limits*
- **Raluca Mihalcescu**, Arizona Water Company, *Water Conservation: A Viable Part of the Solution for Private Water Utilities*
- **Richael Young**, ERA Economics, LLC, *Central Arizona Water Clearinghouse*
- **Stephanie Anagnoson**, Madera County, California, *Allocations for Water Management on Farms*

Moderator: Juliet McKenna, Montgomery & Associates

11:15-11:30

NETWORKING BREAK

11:30-12:30

Session 6: Growing the Workforce

- **Gary Woodard**, Water Resources Consulting, *Ramping up Regional Conservation Capacity*
- **Joshua Ruddick**, University of Arizona, *Career and Technical Education Building Water Related Pathways to a Green Workforce*
- **Selwyn Sekaquaptewa**, Hopi Utilities Corporation, *Hopi Experience with Tribal Workforce Capacity*
- **Frank Barbaro**, Central Arizona Project, *CAP Apprenticeship Program*

Moderator: Maria Dadgar, Inter Tribal Council of Arizona

12:30-1:30

LUNCH

1:10-1:30

Luncheon Keynote: Salt River Project's Role in Arizona's Water Future

- **Leslie Meyers**, Associate General Manager, Salt River Project

Session 7: Utilizing Technology

1:30-2:30

- **David Proctor**, BKW Farms, *A Commercial Application of Controlled Environment Agriculture in the Southwest*
- **Ben Cloud**, Bidel AG Inc., *Microbial Soil Reclamation*
- **Greg Barron-Gafford**, University of Arizona, *Agrivoltaics*
- **Nazario Prieto**, City of Phoenix, *City of Phoenix Advanced Purified Water Plan*
- **Jing Luo**, Apex Applied Technology, Inc., *A STAR Solution to Safe Drinking Water Challenges on Navajo and Hopi Reservations*
- **George Bomar**, Texas Weather Modification Association, *Harvesting the Skies of the American Southwest*
- **Robert Pulliam**, Tubular Rail Inc., *Ocean Imports of Fresh Water for Augmentation of the Colorado River*
- **Mark Witten**, Witten Technologies Inc, *Low-Energy Desalination Technology*

Moderator: Dave Wegner, Woolpert

2:30-2:45

SPONSOR VIDEOS, NETWORKING, AND DESSERT

Poster Session

2:45-3:45

- **Sarah Cerra**, New Mexico State University, *Student: Using AtripleX for RO Concentrate Reuse: Managing Soil Salinity and Microbes*
- **Laura Condon**, University of Arizona, *HydroGEN: A Web Based Hydrologic Scenario Generation Platform for a Changing World*
- **Robert Jimenez-Wieneke**, University of Arizona, *Student: AZstreamCAT*
- **Courtney Lee**, University of Arizona, *Student: Designer Biochars for Removal of PFAS from Contaminated Water*
- **Robert Masson**, University of Arizona, *Monitoring Sprinkler Water Use on the Farm*
- **Molly McCandless**, New Mexico Tech, *Student: Assessing the Potential Impact of Irrigated Agriculture Along the Rio Sonoyta Valley on the Vegetation and Hydrology in the Organ Pipe Cactus National Monument*
- **Roberto Molina**, North American Development Bank, *Bay Acres Wastewater Collections System and Wastewater Treatment Plant Expansion in Douglas, AZ*
- **Melanie Moore**, Gowan High School, **Robert Masson**, University of Arizona, *Student: Building the Water Bank: Moisture Retention Qualities of Soil Amendments in Desert Agricultural Soils*
- **Shaku Nair**, University of Arizona, *How is Water Management Related to Pest Management?*
- **Kun Qi**, University of Arizona, *Student: Flash Flood Simulation Using HEC-HMS Model for an Arid Watershed in Arizona*
- **Zoey Reed-Spitzer**, University of Arizona, *Student: How do Groundwater Levels Vary with Economic and Climate Factors?*
- **Tom Smolarek**, Cypress Ltd, *Advanced Cooling Tower Water Treatment Integrated System to Reduce Water, Waste, Energy and Chemicals*
- **Amanda Trakas**, University of Arizona, *Arizona Water Factsheets*
- **Ashley Wright**, University of Arizona, *Collective Impact: Documenting Small Scale Efforts That Lead to Systems Wide Changes*

<p>3:45-4:20</p>	<p>Session 8: Portfolio-Based Approaches to Address Near-Term and Long-Term Water Demands</p> <ul style="list-style-type: none"> • Lauren Hixon, City of Gilbert • John Kmiec, Tucson Water • Bill Swanson, Stantec • Brian Biesemeyer, Scottsdale Water • John Take, Stantec <p>Moderator: Lisa Beutler, Stantec</p>
<p>4:20-4:35</p>	<p>Session 9: Arizona State University’s Arizona Water Innovation Initiative</p> <ul style="list-style-type: none"> • Susan Craig, Arizona State University, <i>ASU’s Arizona Water Innovation Initiative: An Investment in Water & Climate Resilience</i>
<p>4:35-4:55</p>	<p>Keynote: Financing for Water, Wastewater, Stormwater, and Water Conservation Infrastructure Projects</p> <ul style="list-style-type: none"> • Chuck Podolak, Director, Water Infrastructure Finance Authority of Arizona
<p>4:55-5:00</p>	<p>CLOSING REMARKS - END OF CONFERENCE</p>

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.



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