



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

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| 9:30-10:30 | REGISTRATION AND REFRESHMENTS |
| 10:30-10:40 | Welcome <ul style="list-style-type: none">Robert C. Robbins, President, University of Arizona |
| 10:40-11:10 | Opening Keynote: Protecting Water Quality in Arizona <ul style="list-style-type: none">Karen Peters, Director, Department of Environmental Quality |
| 11:10-12:10 | Session 1: Addressing Water Quality <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 | Lunch Program: Central Arizona Project Response to Shortages <ul style="list-style-type: none">Patrick Dent, Assistant General Manager, Water Policy, Central Arizona Project |

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| 1:10-2:10 | <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, United States Geological Survey</p> |
| 2:10-3:10 | <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 Cooperative Extension, <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> |
| 3:10-3:25 | SPONSOR VIDEOS — NETWORKING BREAK |
| 3:25-3:55 | <p>Keynote: Managing Groundwater in Arizona</p> <ul style="list-style-type: none"> • Natalie Mast, Active Management Areas Director, Arizona Department of Water Resources |
| 3:55-4:55 | <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, Water Program Director, The Nature Conservancy Arizona, <i>Opportunities for Stormwater Recharge in Arizona: Augmentation and Streamflow Benefits</i> • Xochitl Coronado-Vargas, Tucson Water, City of Tucson, <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> |
| 4:55-5:00 | CLOSING REMARKS - END OF DAY 1 |
| 5:30-7:00 | RECEPTION |

WEDNESDAY, JULY 12, 2023

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| 8:00-9:00 | REGISTRATION AND REFRESHMENTS |
| 9:00-9:05 | Welcome <ul style="list-style-type: none">Sharon B. Megdal, Water Resources Research Center, University of Arizona |
| 9:05-10:00 | Keynote Panel: The Importance of Tribal Consultation for Solutions <ul style="list-style-type: none">Amelia Flores, Chairwoman, Colorado River Indian TribesStephen Roe Lewis, Governor, Gila River Indian CommunityTerry Rambler, Chairman, San Carlos Apache Tribe Moderator: Sharon B. Megdal, Water Resources Research Center, University of Arizona |
| 10:00-11:15 | Session 5: Adapting Policy <ul style="list-style-type: none">Elia Tapia, Universidad de Sonora, <i>Transboundary Aquifers</i>Rashi Bhushan, University of Arizona, <i>Identifying Policy Barriers Towards a Net Zero Urban Water Future in Southwestern US</i>Tres English, Sustainable Tucson, <i>Sustaining Tucson - Living Within Our Limits</i>Raluca Mihalcescu, Arizona Water Company, <i>Water Conservation: A Viable Part of the Solution for Private Water Utilities</i>Richael Young, ERA Economics, LLC, <i>Central Arizona Water Clearinghouse</i>Stephanie Anagnoson, Madera County, California, <i>Allocations for Water Management on Farms</i> Moderator: Juliet McKenna, Montgomery & Associates |
| 11:15-11:30 | NETWORKING BREAK |
| 11:30-12:30 | Session 6: Growing the Workforce <ul style="list-style-type: none">Gary Woodard, Water Resources Consulting, <i>Ramping up Regional Conservation Capacity</i>Joshua Ruddick, Arizona Project WET, University of Arizona Cooperative Extension, <i>Career and Technical Education Building Water Related Pathways to a Green Workforce</i>Selwyn Sekaquaptewa, Hopi Utilities Corporation, <i>Hopi Experience with Tribal Workforce Capacity</i>Frank Barbaro, Central Arizona Project, <i>CAP Apprenticeship Program</i> Moderator: Maria Dadgar, Inter Tribal Council of Arizona |
| 12:30-1:30 | LUNCH |
| 1:10-1:30 | Lunch Program: Salt River Project's Role in Arizona's Water Future <ul style="list-style-type: none">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**, CEO, 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

- **Laura Condon**, University of Arizona, *HydroGEN: A Web Based Hydrologic Scenario Generation Platform for a Changing World*
- **Tom Smolarek**, Cypress Ltd, *Advanced Cooling Tower Water Treatment Integrated System to Reduce Water, Waste, Energy and Chemicals*
- **Robert Masson**, Yuma County Cooperative Extension, *Monitoring Sprinkler Water Use on the Farm*
- **Ashley Wright**, Cochise County Cooperative Extension, *Collective Impact: Documenting Small Scale Efforts That Lead to Systems Wide Changes*
- **Shaku Nair**, Arizona Pest Management Center University of Arizona, *How is Water Management Related to Pest Management?*
- **Amanda Trakas**, University of Arizona WRRRC, *Arizona Water Factsheets*
- **Melanie Moore**, Gowan High School, **Robert Masson**, Yuma County Cooperative Extension, *Student: Building the Water Bank: Moisture Retention Qualities of Soil Amendments in Desert Agricultural Soils*
- **Sarah Cerra**, New Mexico State University, *Student: Using Atriplex for RO Concentrate Reuse: Managing Soil Salinity and Microbes*
- **Courtney Lee**, University of Arizona, *Student: Designer Biochars for Removal of PFAS from Contaminated Water*
- **Zoey Reed-Spitzer**, University of Arizona, *Student: How do Groundwater Levels Vary with Economic and Climate Factors?*
- **Robert Jimenez-Wieneke**, University of Arizona, *Student: AZstreamCAT*
- **Kun Qi**, University of Arizona, *Student: Flash Flood Simulation Using HEC-HMS Model for an Arid Watershed in Arizona*
- **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*

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| 3:45-4:20 | <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> |
| 4:20-4:35 | <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> |
| 4:35-4:55 | <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 |
| 4:55-5:00 | CLOSING REMARKS - END OF CONFERENCE |