



About the work of the University of Arizona Water Resources Research Center (WRRC)

Sharon B. Megdal, Director

Celebrating 60 Years of the WRRC Webinar

November 12, 2024

WRRC celebrates 60 years in 2024 as a federally authorized center

- WRRC is the designated Water Resources Research Institute (WRRI) for Arizona pursuant to the Water Resources Research Act (WRRRA) of 1964, as amended
- WRRC is an Extension Center and research unit at the University of Arizona (does not house degree programs)
- Funds from the WRRRA Section 104(b) program help support:
 - Research on water-related issues involving students at Arizona's 3 state universities
 - WRRC's robust Information Transfer Program



Bridging the academic and non-academic communities

- Engagement-connected research
 - Groundwater governance and management
 - Transboundary Aquifer Assessment Program
 - USDA-funded work on irrigated agriculture in the Southwestern US
 - Groundwater, including governance and managed aquifer recharge
 - Colorado River Basin water issues
 - Rural watershed work
 - Water RAPIDS
- Work at geographic scales from local to international
- Work across different water-using sectors
- Partnerships are foundational to our work
- Applied research, engagement, and education efforts are interwoven



Extension, engagement and education programs

- Water Webinars
- 2024 Annual Conference
- Annual Arroyo publication
- Reflections essays
- County Water Factsheets: All 15 counties complete
- WRRC Website
- Project-specific engagement
- Networking
- Weekly Wave e-News Digest



ARROYO 2024

SOLUTIONS TO ARIZONA'S WATER CHALLENGES: WHAT CAN WE DO?

Authors: Courtney Lee, Austin Bauer, and Susanna Eden
Layout: John Polle
Executive Publisher: Sharon B. Megdal
Cover Photo: Stephen Cumberworth – Rainfall; Tucson, AZ, WRRC Photo Contest

INTRODUCTION

Water resources in Arizona are under stress from climate change, a two-decade megadrought, and chronic overuse. These combined influences have led to surface water losses, drying streams and wetlands, and groundwater depletion as pumping exceeds replenishment. Communities are facing the possibility that the water sources they rely on now may shrink in the future, or even vanish. Uncertainty regarding Colorado River water — a large component of Arizona's water portfolio and one that is shared with six other US basin states — also raises questions about Arizona's water future. The quality of available water is a concern as well.

Where supply is limited, lower quality water and wastewater can be valuable resources, but only if they can be treated to suitable standards. **These concerns beg the question: What can be done?**

That very question was the focus of the Water Resources Research Center's 2023 annual conference, "What Can We Do? Solutions to Arizona's Water Challenges." Panelists and presenters highlighted ongoing efforts to address the state's water challenges, as well as new and innovative solutions currently under development. During the conference, several additional themes emerged, such as the need for better, more accessible data, improved technology, and collaboration.

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Reflections: On Participating in the 10th World Water Forum

by Sharon B. Megdal
06/07/2024

Water for shared prosperity was the theme of the **10th World Water Forum**, which was held May 18–25 in Bali, Indonesia. My work has taken me to Europe and the Near East, but this was my first visit to Indonesia. A country of over 17,000 islands and more than 275 million people, it is the world's fourth most populous country, after China, India, and the United States. Participating in this large triennial water conference along with an estimated 15,000 attendees enabled me to share information and insights from my work in Arizona, the Colorado River Basin, and the US-Mexico border region and to learn about the work being done on water issues of other regions. It also enabled me to visit some special people and places in Bali. More on this is at the end of this essay.

The President of Indonesia, Joko Widodo, officially opened the Forum with a speech that highlighted collaboration and inclusive engagement. My participation echoed the president's remarks in emphasizing these two important practices.

My busy week included speaking in six sessions, as mentioned in the **May 24, 2024, Reflections** about my path to the World Water Forum. The sessions occurred in this order: (1) Transboundary and Cross-Sectoral Dialogue for Peace and Water Resilience, (2) Groundwater Governance, (3) Turning Crisis into Opportunities: How Civil Society Engagement Helps Solve Water Issues, (4) Handbook for the Local Implementation of the OECD Principles on Water Governance, (5) Urban Water Resilience in a Catchment Context, and (6) The Role of Science for Building Capacity and Dialogue Across Transboundary Basins. (Group photos from each session are shown above in clockwise order starting from the upper left.) All the sessions, except number 5,

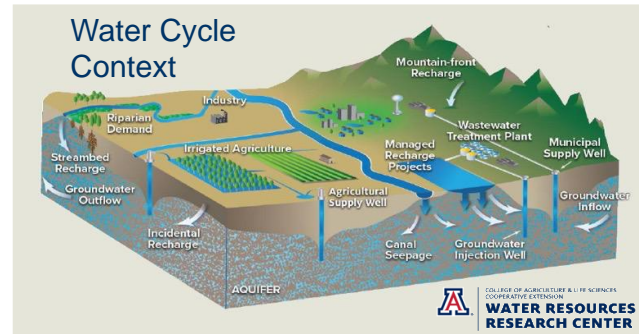


I teach the graduate course “Water Policy in Arizona and Semi-arid Regions” each Spring semester

Water policy and management reflect many determining factors

- Resource Availability
- Location of water demands and supplies
- Economics
- Historic and Current Legal/Institutional Framework
- The nature of involvement of multiple governmental and non-governmental entities, including the extent of centralized versus decentralized decision making
- Politics of Area
- Public values and socio-cultural factors
- Historical context
- Information
- Etc...

Importance of Context



“I learned so much in your class! It was very interesting and I loved the guest speakers and the pragmatic conversations that we had!”

“I learned so much from this class that has already been directly applicable in my work.”

“I really enjoyed the class and the opportunity to be surrounded by great people from many disciplines.”

Some special initiatives

Diversifying Voices in Water Resources

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Review Article

Diversity, Equity, Inclusion, and Justice in Water Dialogues: A Review and Conceptualization


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Abstract: In the United States, the lack of diversity, equity, inclusion, and justice (DEIJ) in water governance and management has been identified as a serious problem that affects the validity of decisions. Because water governance and management institutions, processes, and practices at all scales involve dialogue, it is important to understand DEIJ in water dialogues. This paper reports on the results of a systematic literature survey that was undertaken to guide efforts by The University of Arizona Water Resources Research Center

Award-winning paper!

Indigenous Water Dialogues



ARROYO 2022

To read the 2022 Arroyo use the QR code or link below:
www.uarizona.edu/arroyo-2022

WATER RESILIENCE – INDIGENOUS PERSPECTIVES

Author(s): Brian McGreal and Susanna Eden with Taylor McHugh
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Cover Photo: David Debing, MARP site, Gila River Indian Community

INTRODUCTION

The water resilience of Native peoples to climate and other exogenous shocks has depended largely on the perseverance of the Native Tribes themselves and will depend increasingly on their own intentions and agency. The University of Arizona Water Resources Research Center's 2021 Annual Conference, *Tribal Water Resilience in a Changing Environment*, provided a platform for Native American participants to present and discuss their experiences, knowledge, and visions of water resilience. This *Arroyo* draws extensively on their words.

The history of relations between Native Americans and European settlers in North America has been fraught with tension and conflict. For centuries, colonial powers forcibly asserted control over North American Native people and their lands. This power dynamic led to the existence of a "dominant culture" that has continued to displace Tribal approaches and practices. Although some rights were secured by Native Tribes both by treaty and through federal court decisions, these rights were repeatedly violated as non-Native Americans pushed westward across what is now the United States. Rights to water were among the many disregarded by settlers, who frequently diverted water away from Tribal lands to support their own agriculture, mining, and growing municipalities. These often-sacred waters represent a vital aspect of Tribal identity and are fundamentally associated with many ancestral traditions and customs.

In the late 19th and early 20th centuries, some redress of Native American grievances regarding treaty rights was accomplished through legal action. A major change in the development of Indian law occurred in the 1970s, as a wave of Native attorneys emerged from law schools in the West, determined to advocate for the rights of their people. Notable among them was Rodney "Rod" Blaine

Kasser Joint Institute for Food, Water, and Energy Security

Kasser Joint Institute for Food, Water, and Energy Security.

A partnership of Jewish National Fund - USA, the University of Arizona, and the Arava Valley.



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FOOD, WATER, AND ENERGY SECURITY

WRRC Annual Conference

March 12-13, 2024

Implementing Water Solutions Through Partnerships



Session recordings available!

<https://wrrc.arizona.edu/news-events/2024-conference/wrrc-2024-conference-agenda>

SAVE
the
DATE

MAY
20-21

WRRC 2025
Annual Conference

University of Arizona
Student Union
Tucson, AZ

SHARED
BORDERS
SHARED
WATERS

Working Together
in Times of Scarcity



<https://wrrc.arizona.edu/conference>



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The WRRC's small but dedicated staff endeavors to be...

Responsive and responsible

Consultative

Inclusive and welcoming

in...

Communicating clearly

Empowering decision making through developing and sharing information and analyses

Elevating diverse voices and perspectives

Collaborating effectively

Providing engaging and accessible educational programs and materials

so that we are a trusted partner and source of water information!

WEEKLY WAVE

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