

# WEEKLY WAVE



The WRRRC is shocked and deeply saddened by the tragic and senseless loss of our beloved colleague and friend, Thomas Meixner, professor and department head, Hydrology and Atmospheric Sciences at the University of Arizona. We would like to express our condolences to Tom's family and all of his friends, colleagues, and students.



COLLEGE OF AGRICULTURE & LIFE SCIENCES  
COOPERATIVE EXTENSION

**WATER RESOURCES  
RESEARCH CENTER**



**October 7, 2022 / Volume 10, Issue 26**

The Water Resources Research Center - a research unit of the [College of Agriculture and Life Sciences](#) and an Extension unit in [UA Cooperative Extension](#) within the Division of Agriculture, Life & Veterinary Sciences & Cooperative Extension. [Land Acknowledgement](#).

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**IN THIS ISSUE:** Thirst for Justice, NVIS, Stanley Leake, APW, Desalination



# THIRST

FOR JUSTICE

# Upcoming WRRC Special Event: *Thirst for Justice* Film Screening & Discussion Panel

On Thursday, October 20, the WRRC will host a discussion panel for the documentary [\*Thirst for Justice\*](#). The film follows Sanders, Arizona, and Flint, Michigan residents in their efforts to ensure clean, safe drinking water for their communities. The WRRC is holding this special event to coincide with [Imagine a Day Without Water](#), a national day of action to support communities lacking access to clean water.

[Read More](#)

## EVENTS

### WRRC Brown Bag Webinar: The Water Recycling Revolution: History and Lessons from Four Western States

**Date:** Oct 13, 2022

**Time:** 12:00 pm–1:15 pm Arizona Time

**Location:** [Webinar Only](#)



**Speaker:** William M. Alley, *Director, Science and Technology, National Ground Water Association*

This WRRC Brown Bag presentation reviews the history of potable reuse and lessons learned by examining the key roles of Arizona, California, Colorado, and Texas. Case studies illustrate varying conditions that motivate potable reuse, challenges in implementation, and its potential future as urban population growth, environmental needs, and climate change pressure drinking water supplies of cities across the country.

- [Register Here](#)
- [More Info](#)
- [Sharon B. Megdal's Book Review](#)

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### Upcoming Events

**Oct 20:** [WRRC "Imagine a Day Without Water" Special Event: Thirst for Justice Panel; 4-5 pm AZ Time](#)

**Oct 26:** [Native Voices in STEM Fall 2022 Seminar Series: Groundwater to Snow Science: My Research and Teaching Path to Becoming a "Jack\(lyn\)- Of-All-Trades](#)

**Nov 10:** WRRC Brown Bag Webinar: 104(b) Grant Program: Student Research Presentations – Save the Date

**Nov 18:** WRRC Brown Bag Webinar: Watershed Collaboration in the Tucson Basin: Santa Cruz Watershed Collaborative Adopts a Watershed Restoration Plan to Promote Flowing Rivers – Save the Date

**Nov 29:** Water and Agriculture: Chile-Arizona Experience; Co-hosted by the Agricultural Office of the Embassy of Chile in the US and the University of Arizona Water Resources Research Center; 11:00 am to 1:00 pm AZ Time – Save the Date

**Nov 30:** [Native Voices in STEM Fall 2022 Seminar Series: Featuring Dr. Raymond Torres – Save the Date](#)

## NEWS

### **NVIS Webinar on Collaborative Hydrology Research for Navajo Nation**



On September 28, the second webinar in the Native Voices in STEM Fall 2022 Series was hosted by the UArizona-Sloan Indigenous Graduate Partnership; the Department of Hydrology and Atmospheric Sciences; NSF-NRT Indigenous Food, Energy, Water Security, and Sovereignty; the Water Resources Research Center; and the Indigenous Resilience Center. The webinar, titled “Collaborative Hydrology Research with the Navajo Nation,” was presented by Dr. Lani Tsinnajinnie, a member of the Diné. She is an assistant professor in Community and Regional Planning at the University of New Mexico (UNM). Drawing from her expertise in hydrology, she and her team have been collaborating with New Mexico Tech, Colorado State, the University of Arizona, and UNM to find solutions for protecting the existing water sources in Indigenous communities subject to heavy oil and gas developments. Her research aims to better understand how groundwater and surface water interactions are impacted by climate change to ensure food, energy, and water needs are met. She emphasized the importance of collaborations in water management and accommodating the needs of not only Mexican, American, and Indigenous peoples but also those of Mother Earth to secure water resources for generations to come. The recorded presentation will be posted soon on the [NVIS website](#).

[NVIS Series Recording Library](#)  
[Upcoming NVIS Webinars](#)

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### **Remembering Stanley A. Leake**

We are sad to report the passing of Stanley A. Leake on September 19, 2022, at the age of 71. Born in Prescott, AZ, Stanley attended Arizona State University and the University of Arizona, pursuing a Bachelor of Science degree in mathematics and a Master of Science degree in hydrology. He dedicated more than forty years to his career with the United States Geological Survey (USGS), becoming a well-known and respected scientist in his field. In 2017, Leake received the Arizona Hydrological Society (AHS) Lifetime Achievement Award. He was recognized for his numerous publications on stream capture and groundwater/surface water interactions, as well as his contributions to groundwater modeling technology. Leake was a dear friend and colleague to many in the hydrology community. He will be missed.



[Stanley A. Leake Obituary](#)  
[2017 AHS Lifetime Achievement Award](#)

## **Strong Partnerships and Sponsorships Sustain Flagstaff Water Festivals**

The first Water Festival of the school year was a blast! Arizona Project WET's 16th Annual Flagstaff Water Festival was a great success thanks to community partners and generous sponsorships from the Flagstaff Arizona Community Foundation, the City of Flagstaff, and the City of Flagstaff Water Conservation. The festival was on September 27 and brought together 32 teachers and 693 students from 11 schools. This was a spectacular collaborative day between Arizona Project Wet (APW), Flagstaff Unified School District, Flagstaff Charter Schools, Coconino County Cooperative Extension, Flagstaff City Government, and Northern Arizona University (NAU). Each year, APW trains over 100 community volunteers to deliver festival lessons, at times working with NAU professors to make it part of their preservice teacher instruction. The Flagstaff Water Festival is a long-standing program in the Flagstaff community and Arizona Water Festivals play an important role in water sustainability and stewardship in Arizona.



### [More Info](#)

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## **Desalination – A Solution to Dwindling Water Supply?**

Desalination is often considered as an important option for augmenting Arizona's water supply. WRRRC Director Sharon Megdal has recently been consulted for news stories from NPR and ABC regarding desalination projects. In response to worsening shortage conditions and new funding for water projects, there have been renewed discussions about resuming operations at the inactive Yuma Desalting Plant and constructing two new plants along the Mexican Sea of Cortez. However, desalination comes with significant costs and environmental impacts, as Megdal pointed out. In 2020, the Binational Study of Water Desalination Opportunities in the Sea of Cortez estimated that the costs of desalinated water could reach \$2,200 per acre-foot, compared to the \$270 per acre-foot cost of Colorado River water. Megdal observed that for every gallon desalinated, "you'll get a half gallon of good quality water, and then a half gallon of brine to dispose," which could impact nearby ecosystems. During the construction of the Yuma plant, brine runoff created the Cienega de Santa Clara, a 15,000-acre-foot wetland in Mexico that is now home to endangered marine life and migratory birds. However, the plant has remained idle for 30 years. Resuming operations could disrupt that wetland ecosystem with an influx of heavily salted water. Megdal suggests that desalination should still be a part of the "portfolio" for water augmentation, but to create a more resilient water future, diversification of water resources and desalination tradeoffs should be considered as well.



*Image: Yuma Desalting Plant, Bureau of Reclamation*

- [NPR Desalination Article](#)
- [ABC15 Yuma Desalting Plant Article](#)
- [ABC15 Desalination Article](#)



**WRRC 2022  
Photo Contest**

**WATER NOW!**  
*Living With Less*

**Submit your photos!**



## WATER JOBS

- Town of Gilbert [Water Conservation Coordinator](#)
- ADWR [Hydrogeologist Associate](#)

Please visit [WRRC's website](#) for a complete listing of water jobs & opportunities.

## ANNOUNCEMENTS

- **Oct 7:** [UCOWR/NIWR 2023 Annual Conference – Special sessions Proposal Deadline](#)
- **Oct 8:** [Urban Wildlife Conservation Day 2022](#)
- **Oct 8:** [Watershed Management Group: River Run Network Creek Walk: Santa Cruz River Flows](#)
- **Oct 10-12:** [Southwest Adaptation Forum 2022](#)
- **Oct 11:** [AHS Monthly Tucson Chapter Meeting & Presentation](#)
- **Oct 11:** [Virtual Rainwater Harvesting Class \(Tucson Water Rebate\)](#)
- **Oct 12:** [ADEQ Webinar: Proposed Individual Permit Fees](#)
- **Oct 12:** [ADEQ Webinar: Proposed Operator Certification Program Fees](#)
- **Oct 13:** [WRRC Brown Bag Webinar: The Water Recycling Revolution: History and Lessons from Four Western States](#)
- **Oct 13:** [2022 Ruth Wright Distinguished Lecture in Natural Resources: Mobilizing the Global Community on Climate Change: An Indigenous Leadership Perspective](#)
- **Oct 13:** [ADEQ On-site Wastewater Treatment Facility Proposed Rulemaking Hearing](#)
- **Oct 14:** [ADEQ Webinar: Proposed General Permit Fees](#)
- **Oct 17:** [ADEQ Public Hearing on Surface Water Protection Program Rulemaking](#)
- **Oct 17:** [AWRA 2023 Summer Conference – Topical Session Proposal Deadline](#)
- **Oct 19:** [Indigenous Knowledge and Water Security Mini Film Festival & Speaker Panel](#)
- **Oct 20:** [Imagine a Day Without Water](#)
- **Oct 20:** [WRRC “Imagine a Day Without Water” Special Event: Thirst for Justice Panel](#)
- **Oct 20:** [ADEQ Public Notice: EPA's Approval of State Drinking Water Program Primacy Revision Determination – Deadline to Submit Requests for Public Hearing](#)
- **Oct 20:** [Watershed Management Group: Community Conversation: Take Action for a Hydro Local Future - Desert Living Home Tour Kick-Off](#)
- **Oct 22:** [Watershed Management Group: 11<sup>th</sup> Annual Desert Living Home Tour](#)
- **Oct 26:** [One Water Salinity Management Innovation Summit 2022](#)
- **Oct 26:** [Native Voices in STEM Fall 2022 Seminar Series: Groundwater to Snow Science: My Research and Teaching Path to Becoming a "Jack\(lyn\)- Of-All-Trades](#)

- **Oct 28:** [Public Comment Period for Arizona Water Protection Fund Fiscal Year 2023 Grant Applications – Deadline](#)
- **Oct 30:** [Campus Sustainability Fund Mini Grants – Final Application Deadline](#)
- **Nov 7-9:** [AWRA 2022 Annual Water Resources Conference](#)
- **Nov 10:** WRRRC Brown Bag Webinar: 104(b) Grant Program: Student Research Presentations – Save the Date
- **Nov 16:** [Yuma Center of Excellence for Desert Agriculture: Desert Agriculture Research Symposium](#)
- **Nov 18:** WRRRC Brown Bag Webinar: Watershed Collaboration in the Tucson Basin: Santa Cruz Watershed Collaborative Adopts a Watershed Restoration Plan to Promote Flowing Rivers – Save the Date
- **Nov 27-Dec 1:** [The 8<sup>th</sup> International Conference on Drylands, Deserts & Desertification: Learning from Drylands: A Global Effort Towards Ecosystem Restoration](#)
- **Nov 29:** Water and Agriculture: Chile-Arizona Experience; Co-hosted by the Agricultural Office of the Embassy of Chile in the US and the University of Arizona Water Resources Research Center – Save the Date
- **Nov 30:** [Native Voices in STEM Fall 2022 Seminar Series: Featuring Dr. Raymond Torres – Save the Date](#)
- **Jan 15, 2023:** [Campus Sustainability Fund Annual Grants – Preliminary Application Deadline](#)
- **May 7-10, 2023:** [National Association of Environmental Professionals \(NAEP\) 2023 Conference](#)
- **May 8-9, 2023:** [Water for Food Global Conference: Cultivating Innovation: Solutions for a Changing World](#)
- **Jun 13-15, 2023:** [UCOWR/NIWR 2023 Annual Water Resources Conference](#)

## PUBLICATIONS & MEDIA

[A Living River: Charting Santa Cruz River Conditions Downtown Tucson to Marana \(2021 Water Year\)](#)

## OTHER NOTICES

[City of Tucson Seasonal Watering & Landscape Resources](#)

*Dr. Thomas Meixner memorial image: Sandy Shiloh, Whitewater Draw*

Do you have a story idea, water job announcement, or event to share?

[Contact us here](#)