

# WEEKLY WAVE



THE UNIVERSITY OF ARIZONA  
COOPERATIVE EXTENSION

## WATER RESOURCES RESEARCH CENTER



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The Water Resources Research Center - a research unit of the [College of Agriculture, Life and Environmental 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:** Student Posters, TAAP, KJZZ, Factsheet, Navajo Pottery

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## Student Poster Abstracts – Deadline Extended to January 26

Are you a student or do you work with a student engaged in interesting water-related research? We have news for you! The deadline to submit an abstract for the WRRC 2024 Annual Conference student poster session has been **extended until January 26, 2024**. For this year's conference, *Implementing Water Solutions Through Partnerships*, the

WRRC seeks students from any Arizona educational institution to submit abstracts that highlight research, management, or community engagement projects relating to water in the Southwest. In-person attendance is required for the poster session, on the evening of Tuesday, March 12, 2024, following the first day of the conference program. Top student posters will receive cash prizes, and all student poster presenters will receive complimentary registration for the two-day conference. This session will provide an opportunity to network with leading researchers and professionals in the water industry and share your piece of Arizona's water solutions. Send in your abstract today!

*Image: Clayton B. Lyon. WRRC 2023 Conference*

[More Info](#)

## EVENTS



**IMPLEMENTING  
WATER  
SOLUTIONS  
THROUGH  
PARTNERSHIPS**

**MARCH 12-13**  
University of Arizona  
Student Union Grand Ballroom

### CALL FOR STUDENT POSTER ABSTRACTS

**Extended Deadline - January 26!**

All students in Arizona participating in water research, management, or community engagement projects in the Southwest region are encouraged to apply!

[More info >](#)

### Upcoming WRRC Co-Sponsored Events

**Jan 30, 2024:** [Arizona Association of Women in Water & Agriculture \(Wine, Women & Water Reception\) – Co-sponsored by the WRRC](#)

**Jan 31, 2024:** [Arizona Association of Women in Water & Agriculture Annual Meeting – Co-sponsored by the WRRC](#)

**Feb 6:** [NVIS Spring 2024 Seminar: Indigenous Ingenuity: A Path Forward – Co-sponsored by the WRRC](#)

**Mar 12:** [NVIS Spring 2024 Seminar: Place Based Learning and Cultural Fire Practice in California – Co-sponsored by the WRRC](#)

**Apr 2:** [NVIS Spring 2024 Seminar: \[Presentation title TBD\] – Co-sponsored by the WRRC](#)

**May 7:** [NVIS Spring 2024 Seminar: Eleltek Waali \(I'm Reading Country\) – Co-sponsored by the WRRC](#)

## NEWS

**Spanish Translations of TAAP Reauthorization Testimony Posted**

## [Traducción al Español Aquí](#)

On October 25, 2023, WRRRC Director Sharon B. Megdal presented her testimony to the US House of Representatives Committee on Natural Resources, Subcommittee on Water, Wildlife and Fisheries, regarding HR 5874. This bill amends the Transboundary Aquifer Assessment Act of 2006 by reauthorizing the United States-Mexico transboundary aquifer assessment program and modifying restrictions on the designation of additional transboundary aquifers of focus. During the hearing, it was emphasized that transboundary groundwater characterization is essential for assisting communities in shaping their water futures and for making more informed water management decisions. HR 5874, introduced by Arizona District 6 Representative Juan Ciscomani and co-sponsored by New Mexico District 1 Representative Melanie Stansbury, aims to facilitate the development of additional transboundary aquifer studies. These studies are much-needed and will provide valuable information regarding water quality and water quantity to decision-makers in the border communities of the United States and Mexico. A *Reflections* essay entitled “Testifying on Reauthorization of the Transboundary Aquifer Assessment Program” by Megdal can be found [here](#). Megdal’s testimony on HR 5874 can be found [here](#). For more information about the transboundary aquifer assessment program, please visit the [TAAP website](#).



*Image: Arizona District 6 Representative Juan Ciscomani and WRRRC Director Sharon B. Megdal at the Water, Wildlife and Fisheries Subcommittee legislative hearing on October 25, 2023.*

- [Video of Testimony](#)
- [Reflections: Testifying on Reauthorization of the Transboundary Aquifer Assessment Program](#) [Spanish Translation](#)
- [Megdal Responses to Rep. Juan Ciscomani's Questions about HR 5874](#)
- [USGS TAAP Website](#)

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## **WRRRC Director Megdal Interviewed on KJZZ Radio**

On Thursday, December 14, WRRRC Director Sharon B. Megdal was featured in an interview on KJZZ, a Phoenix-based NPR member radio station. She was interviewed alongside Nancy Caywood, of Caywood Farms, to talk about the future of agriculture in Arizona in light of decreasing water availability. Megdal and Caywood discussed some of the strategies farmers are using throughout the state, including on Caywood’s farm in Casa Grande, to adapt to use less water. Both an audio recording and a written transcript of the interview are available on the KJZZ website.



*Image: Nate Boyle. Sharon Megdal and Nancy Caywood in KJZZ's studio.*

## [KJZZ Interview](#)

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## Did You Know?

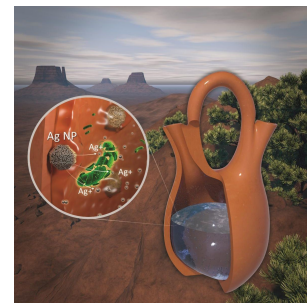
Nearly all surface water in Yuma County comes from the Colorado River, which is the only source of water for communities located adjacent to the river. Most Colorado River water used in Yuma County is diverted at Imperial Dam into a network of approximately 226 miles of canals. These canals provide water for irrigation along the fertile floodplains of the Lower Colorado and Lower Gila Rivers, as well as to public and private water providers for municipal and industrial use. Agricultural production is the largest, most economically significant industry in Yuma County. It is one of the nation's largest producers of winter vegetables, particularly leafy greens. During peak weeks in December, leafy greens from Yuma can represent between 80% to 95% of US weekly shipments. In a 40-acre plot of land, Yuma farmers produce nearly 6 million servings of vegetables. With all the combined acres, this equates to 1 billion pounds of lettuce per month or 170 million servings of lettuce per day. Want to learn more about water in Yuma County? Check out the factsheet and video at the links below.



### [Yuma County Water Factsheet](#) [The Winter Salad Bowl](#)

## Water Filtration Research Combines Navajo Pottery with Nanomaterials

A recently published article in the journal *Environmental Science & Technology* highlighted the development of a water filtration device that blends nanomaterials and traditional Navajo pottery. A research team at the University of Texas at Austin, working alongside a third-generation Navajo potter, developed ceramic water filters imbued with silver nanoparticles. Water is poured through the pottery, and the silver nanoparticles work to disinfect the water. To prevent the loss of these silver nanoparticles, resin from the local pinyon pine tree was also applied to the pottery. The resin was found to also prevent the silver nanoparticles from mixing with certain chemicals in the untreated water like chloride and sulfide, which can “poison” the silver and reduce the efficacy of the filters. Costing around \$10 to make, the filters could become an effective and inexpensive method for disinfecting water in areas of the Navajo Nation that lack access to clean drinking water. The study also suggests that the use of locally sourced materials and traditional pottery could improve trust in the technology, leading it to be more widely adopted by people within the Navajo Nation.



*Image: The University of Texas at Austin. A new water filtration solution involves lining clay pots with pinyon pine tree resin and incorporating tiny, silver-based particles, which removes bacteria and generates clean, drinkable water.*

### [Read the Article](#)

Happy Holidays!



The *Weekly Wave* is taking a little break. Our next issue will be published on January 5, 2024. See you next year!

## WATER JOBS

- ADWR [GIS Intern](#)
- AZGFD [Water Resources Manager](#)
- University of Minnesota [Extension Educator – Irrigation](#)
- University of Minnesota [Extension Educator – Agronomy and Water Resources](#)
- USGS [Permanent Social Scientist](#)
- USGS [Pathways Recent Grad Social Scientist](#)

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

## NOTICES, PUBLICATIONS, and MEDIA

### Western Water News Article: Colorado River Shortages Drive Major Advances in Recycled Sewage Water Use

After more than two decades of drought, water utilities serving the largest urban regions in the arid Southwest are embracing a drought-proof source of drinking water long considered a supply of last resort: purified sewage. [Read the Article](#)

### A Living River/Un Río Vivo, Nogales 2023

The Sonoran Institute's 2023 report on the conditions of the Santa Cruz River is now available in both English and Spanish. [Read the Report](#)

## CALENDAR ANNOUNCEMENTS

- **Dec 15:** [2024 Arizona Water Reuse Symposium – Abstract Deadline](#)
- **Dec 15:** [WRRC 2023 Photo Contest: Water Scarcity & Extreme Weather – Submission Deadline](#)
- **Dec 18:** [Environmental Professionals of Arizona \(EPAZ\) Conference – Abstract Submission Deadline](#)
- **Dec 19:** [AHS Tucson Holiday Party](#)
- **Dec 22:** [A Meeting of Sacred Waters: A Global Gathering of Indigenous Voices – Abstract Deadline](#)
- **Dec 30:** [Water Quality Research Foundation – Poster Submission Deadline](#)
- **Jan 1, 2024:** [RiversEdge West 2024 Conference – Poster Presentation Abstract Deadline](#)
- **Jan 8, 2024:** [NGWA Conference: Groundwater in the PFAS Era: Stressors, Protection, & Compliance – Abstract Submission Deadline](#)
- **Jan 9:** [Desert Ag Research Symposium on Soil Health](#)
- **Jan 12:** [2024 Bouwer Intern Scholarship – Application Deadline](#)
- **Jan 22–24, 2024:** [Growing Water Smart: Integrated Water and Land Use Planning Workshop](#)
- **Jan 26:** [WRRC 2023 Annual Conference – Student Poster Abstract Deadline](#)  
**EXTENDED!**

- **Jan 30, 2024:** [Arizona Association of Women in Water & Agriculture \(Wine, Women & Water Reception\) – Co-sponsored by the WRRC](#)
- **Jan 31, 2024:** [Arizona Association of Women in Water & Agriculture Annual Meeting – Co-sponsored by the WRRC](#)
- **Jan 31, 2024:** [3<sup>rd</sup> International Groundwater-Agriculture Conference: Toward Sustainable Groundwater in Agriculture - Linking Science and Policy – Abstract Deadline](#)
- **Jan 31, 2024:** [Pete McBride: Into the Grand Canyon, Between River and Rim](#)
- **Feb 4–7, 2024:** [NIWR 2024 Annual Meeting](#)
- **Feb 6:** [NVIS Spring 2024 Seminar: Indigenous Ingenuity: A Path Forward – Co-sponsored by the WRRC](#)
- **Feb 11–13, 2024:** [AWWA/WEF Young Professionals Summit](#)
- **Feb 22–23, 2024:** [2024 Family Farm Alliance Annual Conference – Resilience in Every Drop: Safeguarding America's Food Security](#)
- **Feb 26–27, 2024:** [Environmental Professionals of Arizona \(EPAZ\) Conference](#)
- **Feb 26–28, 2024:** [Water Resources Management & Sustainability: Solutions for Arid Regions 2nd International Conference](#)
- **Feb 27–29, 2024:** [2024 Southwest Adaptation Forum – Save the Date](#)
- **Feb 28–Mar 1, 2024:** [MSSC 2024 Annual Salinity Summit](#)
- **Mar 5–7, 2024:** [RiversEdge West 2024 Conference – Restoration for the Future: Promoting Resilience in Our Rivers and Communities](#)
- **Mar 10–16, 2024:** [National Groundwater Awareness Week](#)
- **Mar 11–14, 2024:** [AWWA WateReuse 2024 Symposium](#)
- **Mar 12:** [NVIS Spring 2024 Seminar: Place Based Learning and Cultural Fire Practice in California – Co-sponsored by the WRRC](#)
- **March 12–13, 2024:** [WRRC 2024 Annual Conference: Implementing Water Solutions Through Partnerships](#)
- **March 12–13, 2024:** [A Meeting of Sacred Waters: A Global Gathering of Indigenous Voices](#)
- **Mar 25–27, 2024:** [AWRA 2024 Geospatial Water Technology Conference: Data to Decisions: Managing & Modeling Water Challenges](#)
- **Apr 2:** [NVIS Spring 2024 Seminar: \[Presentation title TBD\] – Co-sponsored by the WRRC](#)
- **Apr 3–6, 2024:** [BSMAR18](#)
- **Apr 8–10, 2024:** [AWRA 2024 Spring Conference: Water Risk & Resilience: Research and Sustainable Solutions](#)
- **Apr 16–17, 2024:** [NGWA Conference: Groundwater in the PFAS Era: Stressors, Protection, & Compliance](#)
- **Apr 23–25, 2024:** [97<sup>th</sup> Annual AZ Water Conference & Exhibition Annual AZ Water Conference & Exhibition](#)
- **May 7:** [NVIS Spring 2024 Seminar: Eleltek Waali \(I'm Reading Country\) – Co-sponsored by the WRRC](#)
- **Jun 10–13, 2024:** [AWWA 2024 Annual Conference & Expo \(ACE24\): Transforming Our Water Future](#)
- **Jun 17–20, 2024:** [3<sup>rd</sup> International Groundwater-Agriculture Conference: Toward Sustainable Groundwater in Agriculture - Linking Science and Policy](#)
- **Jul 28–30, 2024:** [2024 Arizona Water Reuse Symposium](#)
- **Sep 30–Oct 2, 2024:** [AWRA/UCOWR/NIWR 60th Anniversary Joint Water Resources Conference](#)

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

[Contact us here](#)

Visit our Website