

WEEKLY WAVE



THE UNIVERSITY OF ARIZONA
COOPERATIVE EXTENSION

WATER RESOURCES RESEARCH CENTER



February 2, 2024 / Volume 12, Issue 5

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.](#)

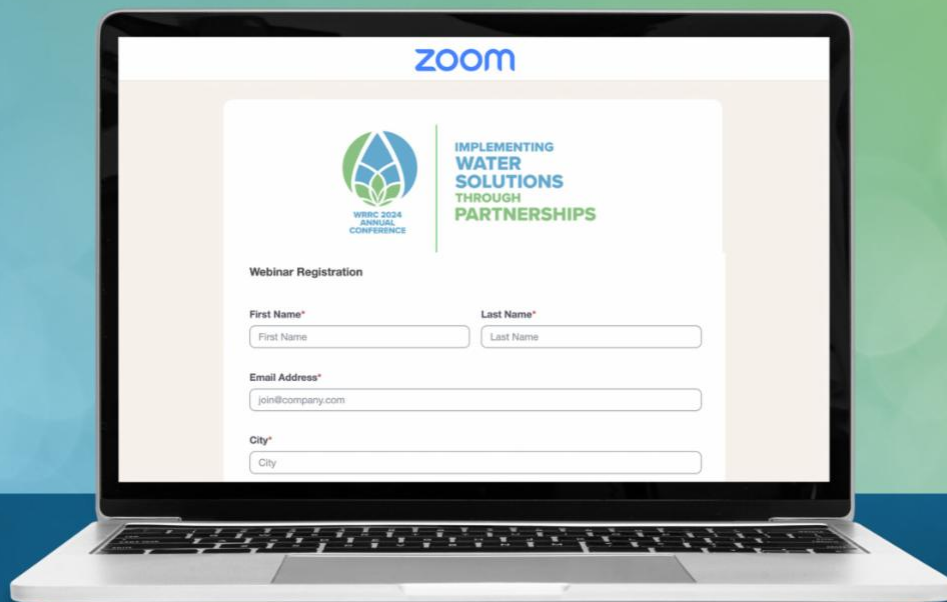
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**WRRC 2024 Conference Free Livestream
Registration Now Open**

The WRRC 2024 Conference, *Implementing Water Solutions Through Partnerships*, will be held March 12–13 at the University of Arizona Student Union. For those who cannot attend in person, we are pleased to offer a free, noninteractive Zoom livestream. Registration is now open for free livestreaming as well as for in-person attendance at the Early Bird discounted rate. For more information, please visit our [conference website](#).

- [Livestream Registration](#)
- [In-Person Registration](#)
- [More Info](#)

CONFERENCE UPDATES



EVENTS

NVIS Spring 2024 Seminar: Indigenous Ingenuity: A Path Forward – Co-sponsored by the WRRC

Date: Tuesday, February 6, 2024

Time: 12:00 pm – 1:00 pm MST

Location: [Zoom](#)

Speaker: Michael Kotutwa Johnson, *Assistant Specialist, Indigenous Resiliency Center, University of Arizona*



Dr. Michael Kotutwa Johnson is a member of the Hopi Tribe in Northern Arizona. He holds a PhD in Natural Resources from the UArizona, a Master of Public Policy from Pepperdine University, and a BS in Agriculture from Cornell University. Johnson is a faculty member and Assistance Specialist within the School of Natural Resources and the Environment. His primary work is with the Indigenous Resilience Center. Johnson is a co-author of the Indigenous Chapter in the National Climate Assessment Five and his newest initiative is the call for the Revitalization of the American Indian Food System based on the stewardship principles of Indigenous conservation. Most importantly, Johnson continues to practice Hopi dry farming, a practice of his people for millennia.

- [Register Here](#)
- [More Info](#)
- [NVIS Spring 2024 Lineup](#)

Udall Center Symposium – Navigating the Rapids: Colorado River Governance in the 21st Century – Co-sponsored by the WRRC

Date: Thursday, February 15, 2024

Time: 4:00 pm – 6:00 pm MST

Location: [ENR2 Building, Room S107](#)



More than 40 million people rely on the Colorado River. Its water is shared by seven US states and Mexico as a vital source of water for cities, agriculture, recreation, and the environment. However, it is under severe strain due to over-allocation, drought, and climate change. Alarming low reservoir levels have raised concerns about the river's ability to sustain the people who depend on it. How did we get where we are today? What can we do to protect the river and ensure that it will continue to flow? Join UC Director Andrea Gerlak and 12 other water policy experts from across the Colorado River Basin for a public symposium addressing the governance of the Colorado River. Over the course of two moderated roundtable discussions, panelists will offer diverse perspectives on the river's stakeholders, decision-making processes, and its most complex challenges. The discussions will offer insights on the future of the Colorado River and its viability to support agriculture, ecosystems, and human life. The event will include two brief talks and two roundtable sessions. Please join us for a networking reception in the ENR2 courtyard immediately following the symposium, where refreshments and light appetizers will be served.

[Register Here](#)
[More Info](#)

WRRC 20th Annual Chocolate Fest

Date: Friday, February 16, 2024

Time: 4:00 pm – 5:00 pm MST

Location: [350 N Campbell Ave. Tucson, AZ 85719](#)



Get ready for a mouthwatering celebration, where chocolate lovers unite and we announce our 2023 photo contest winners. We invite you to join the WRRC on Friday, February 16, from 4:00–5:00 pm for our 20th Annual Chocolate Fest. During this in-person event, you'll get to enjoy some delicious chocolate creations from Tucson kitchens and beyond. We encourage you to bring your homemade (or store-bought) goodies to share as part of our chocolate potluck. Aside from getting to enjoy these sweet treats, you'll have the opportunity to mingle with water colleagues and see the winning photographs from our 2023 Annual Photo Contest. So, mark your calendars and start thinking about chocolate! We hope to see you next month at Chocolate Fest 2024.

[Register Here](#)

Upcoming WRRC Events

- Feb 27: [WRRC Water Webinar: Water for All: Global Solutions for a Changing Climate; 3–4 pm MST](#)
- March 12–13: [WRRC 2024 Annual Conference: Implementing Water Solutions Through Partnerships](#)

Upcoming WRRRC Co-sponsored Events

- Mar 12: [NVIS Spring 2024 Seminar: Place Based Learning and Cultural Fire Practice in California; 12–1 pm MST](#)
- Apr 2: [NVIS Spring 2024 Seminar: Unraveling Ecosystem Challenges: Investigating Pinyon Decline and Big Sagebrush Resiliency; 12–1 pm MST](#)
- May 7: [NVIS Spring 2024 Seminar: ?Elettek Waali? \(I'm Reading Country\); 12–1 pm MST](#)

External Events

- Apr 11–12: [Law of the Rio Grande Annual Conference](#)
- May 6–7: [Law of the Colorado River Annual Conference](#)

NEWS

Women Connect and Inspire at AAWWA Annual Event

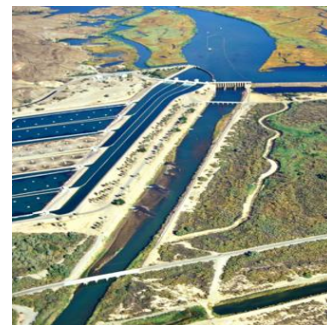
On Wednesday, January 31, the Association of Women in Water and Agriculture (AAWWA) held its 3rd Annual Meeting at the University of Arizona Student Union. At a networking event on the previous night, many meeting attendees made new connections and caught up with colleagues over wine and snacks. During the meeting, a diverse all-woman program featured talks by leaders from government, academia, and the private sector, who shared knowledge and advice based on years of experience confronting Arizona's water and agriculture challenges. A recorded message from Senator Kyrsten Sinema opened the meeting. Speakers and panelists who followed reflected on their careers and lessons learned along the way. WRRRC Director Sharon B. Megdal told the story of her winding journey from earning a PhD in Economics to her current position working in the field of water and policy. Speakers also described programs of research and engagement, including those aimed at women and Indigenous people. Staff members from Arizona's US Senators' offices wrapped up the meeting with a glimpse at legislative priorities. The event was organized by AAWWA co-founders, Stephanie Knight-Dubien, Executive Assistant for the Agribusiness & Water Council of Arizona (ABWC), and Meghan Scott of Noble Law Office, who serves as the Assistant Coordinator for the Yuma County Agriculture Water Coalition and sits on the Board of Directors for both ABWC and the National Water Resources Association. AAWWA was created within ABWC to provide a place for women in water and agriculture to connect with, learn from, and inspire each other.



[More Info](#)

WRRRC Webinar Examines Yuma Ag Water Use

This Tuesday, WRRRC hosted a Water Webinar examining agricultural water use in Yuma, AZ. Meghan Scott, an attorney who focuses her practice on water and agricultural law and who represents multiple irrigation districts in the Yuma area, spoke about Yuma agriculture's water use. During the webinar, Scott described Yuma agriculture as "irreplaceable" within the US. The Yuma area's \$3 billion agricultural industry produces 175 types of crops year-round, including 80-90% of the nation's leafy greens



during the winter months. Scott maintained that Yuma, which uses Colorado River water, is highly water efficient relative to other agricultural areas. Scott highlighted a 2015 case study that found Yuma's water efficiency was 85-90%, 75% more efficient than other agricultural water users in the Colorado River basin. The area has seen water usage decrease since the 1970s, while nearly doubling agricultural production, Scott said. She went on to discuss potential changes to the Colorado River and their impacts on Yuma and beyond. She argued that reducing the amount of water going to Yuma farms would reduce production, and water reductions to the area would ultimately impact the nation's food supply.

[View the Recording](#)
[More Info](#)

Satellite Research Explores Water Availability

In an ENVS Colloquium co-sponsored by the WRRRC, hydrologist and Arizona State University (ASU) professor Dr. Jay Famiglietti discussed global and regional changes to freshwater availability detected with the help of satellites. Using two decade's worth of observations from the GRACE and GRACE Follow-On satellites, Famiglietti described how ocean levels are rising, while continental land masses (excluding ice sheets) are drying up and losing freshwater storage. In general, this shift in global water distribution is contributing to more extreme weather such as drought and floods. Smaller-scale regional studies provided evidence that both California's Central Valley aquifer and the Lower Colorado River Basin have seen accelerated groundwater depletion over the years. Famiglietti argued that the scope and pace of these changes have surpassed humanity's collective response to them and now require effective science communication and thorough engagement of stakeholders to instill in them a sense of urgency. The ASU [Arizona Water Innovation Initiative](#), on which Famiglietti is an executive committee member, was presented as a way to facilitate the necessary efforts in Arizona.

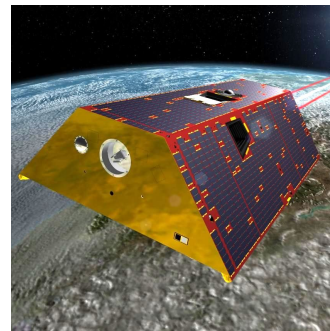


Image: NASA. Like GRACE, the twin GRACE-FO satellites will follow each other in orbit around the Earth, separated by about 137 miles (220 km). Seen in an artist's rendering.

- [View the Recording](#)
 - [Arizona Water Innovation Initiative](#)
 - [ENVS Colloquium Series](#)
-

Remembering Dr. James (Jim) Riley

We at the WRRRC were saddened to learn that our friend and colleague, Dr. James (Jim) Riley, emeritus professor in Environmental Sciences at the University of Arizona, passed away on December 7, 2023. Dr. Riley retired from the UArizona in 2013 following a long career focused on water in arid environments. After earning his PhD in Hydrology from the University of Arizona in 1968, he served as Assistant Director of the Arizona WRRRC for a year before taking on the administration of international agricultural research and development programs outside the United States. He returned to UArizona in the 1990s, focusing on research and teaching. Perhaps best remembered for his work in water harvesting, Jim Riley was a



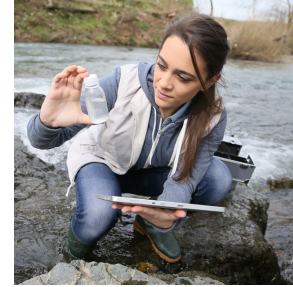
founder and central figure in the volunteer consulting and advocacy organization, CATCHWater (Consortium for Action Throughout the Community for Harvesting Water), promoting water harvesting in the Tucson region.

[Read More](#)

WATER JOBS/OPPORTUNITIES

WRRC Invites Research Proposals for 104(b) & 104(g) Programs

Faculty and research personnel at any of Arizona's three public universities are invited to submit research proposals to the WRRC for federal 104(b) grants of up to \$10,000 or competitive 104(g) grants of up to \$310,000. Grant funds are provided by the Water Resources Research Act through the US Geological Survey (USGS). For more information, visit the web pages below or email Jessie Hampton (jessiehampton@arizona.edu).



[104\(b\) Grant Info](#) Proposal Deadline: March 1, 2024

[104\(g\) Grant Info](#) Proposal Deadline: March 27, 2024

- RiversEdge West [Restoration Coordinator](#)
- RiversEdge West [Grand Valley River Corridor Initiative Consultants](#)
- Watershed Management Group [2024 Summer Internships](#)

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

NOTICES, PUBLICATIONS & MEDIA

WRRC Activities

Waterloop Podcast Episode #207: Western Leaders & Adaptation Insights

As a variety of forces continue to change the water landscape in the American West, adaptation is the focus. This episode features conversations with several prominent water leaders from the One Water Summit in Tucson, including WRRC Director Sharon B. Megdal. [Watch or Listen Here](#)

Other Media Outlets

New Podcast: "From Flooding to Drought, Geospatial Technology Tracks Water Resources"

Featured on the weekly segment of Total Information A.M., the podcast features KMOX's Megan Lynch and Siddharth Saksena, Assistant Professor, The Charles E. Via, Jr. Department of Civil & Environmental Engineering, Virginia Tech, and member of the AWRA 2024 GWTC Planning Committee. [Listen to the Podcast](#)

CALENDAR ANNOUNCEMENTS



- **Feb 4–7:** [NIWR 2024 Annual Meeting](#)
- **Feb 5:** [ENVS Colloquium — Rick Tafoya \(USDA\)](#)
- **Feb 6:** [NVIS Spring 2024 Seminar: Indigenous Ingenuity: A Path Forward; 12–1 pm MST](#) – Co-sponsored by the WRRC
- **Feb 8–9:** [First International Atmospheric Water Harvesting Summit](#)
- **Feb 11–13:** [AWWA/WEF Young Professionals Summit](#)
- **Feb 12:** [WRRC 2024 Annual Conference](#) – Early Bird Registration Deadline!
- **Feb 12:** [ENVS Colloquium — Dr. Sheldwin Yazzie \(Albuquerque Area Indian Health Board\)](#)
- **Feb 15:** [Udall Center Symposium – Navigating the Rapids: Colorado River Governance in the 21st Century; 4–6 pm MST](#) – Co-sponsored by the WRRC
- **Feb 16:** [WRRC 20th Annual Chocolate Fest; 4–5 pm MST](#)
- **Feb 16:** [AHS 2024 Bouwer Intern Scholarship – Application Deadline](#) – Extended!
- **Feb 19:** [ENVS Colloquium — TBD](#)
- **Feb 20:** [Advanced Irrigation Training for Conservation Professionals](#)
- **Feb 20:** [Santa Cruz River Research Days – Abstract Submission Deadline](#)
- **Feb 22:** [Spring 2024 Tumamoc Talk: What Goes on Inside the Clouds? – Dr. Sylvia Sullivan](#)
- **Feb 22–23:** [2024 Family Farm Alliance Annual Conference – Resilience in Every Drop: Safeguarding America’s Food Security](#)
- **Feb 25:** [AWRA/UCOWR/NIWR 60th Anniversary Joint Water Resources Conference – Topical Session Deadline](#)
- **Feb 26–27:** [Environmental Professionals of Arizona \(EPAZ\) Conference](#)
- **Feb 26–28:** [Water Resources Management & Sustainability: Solutions for Arid Regions 2nd International Conference](#)
- **Feb 27:** [WRRC Water Webinar: Water for All: Global Solutions for a Changing Climate; 3–4 pm MST](#) – Co-sponsored by the WRRC
- **Feb 27–29:** [2024 Southwest Adaptation Forum](#)
- **Feb 28–Mar 1:** [10th Natural History of the Gila Symposium](#)
- **Feb 28–Mar 1:** [MSSC 2024 Annual Salinity Summit](#)
- **Mar 1:** [Water Resources Research Institute Program 104\(b\) Student Grant – Proposal Deadline](#)
- **Mar 3:** [Regreening the Desert: Free Soil Health Film Screening](#)
- **Mar 4:** [WRRC 2024 Annual Conference – Standard Registration Deadline!](#)
- **Mar 5–7:** [RiversEdge West 2024 Conference – Restoration for the Future: Promoting Resilience in Our Rivers and Communities](#)
- **Mar 6–8:** [Land & Water Summit](#)
- **Mar 7–8:** [Sustainable Water Investment Summit](#)
- **Mar 10–16:** [National Groundwater Awareness Week](#)
- **Mar 11:** [ENVS Colloquium — Dr. Thomas Lavanchy \(Oklahoma State University\)](#)
- **Mar 11–14:** [AWWA WaterReuse 2024 Symposium](#)
- **Mar 12:** [NVIS Spring 2024 Seminar: Place Based Learning and Cultural Fire Practice in California; 12–1 pm MST](#) – Co-sponsored by the WRRC
- **March 12–13:** [WRRC 2024 Annual Conference: Implementing Water Solutions Through Partnerships](#)
- **March 12–13:** [A Meeting of Sacred Waters: A Global Gathering of Indigenous Voices](#)
- **Mar 14:** [Spring 2024 Tumamoc Talk: The Influence of a Variable and Changing Climate on Upper Gila River Streamflow – Dr. Connie Woodhouse](#)
- **Mar 18:** [ENVS Colloquium — SEES Earthweek Keynote Speaker](#)
- **Mar 21:** [ENViSion Research Symposium](#)
- **Mar 25:** [ENVS Colloquium — Dr. Katerina Dontsova \(UArizona\)](#)
- **Mar 25–27:** [AWRA 2024 Geospatial Water Technology Conference: Data to Decisions: Managing & Modeling Water Challenges](#)
- **Mar 27:** [USGS 104\(g\) National Competitive Grant – Proposal Deadline](#)
- **Mar 31:** [AHS 2024 Halpenny Intern Scholarship – Application Deadline](#)
- **Mar 31:** [AHS 2024 Avery Intern Scholarship – Application Deadline](#)
- **Apr 1:** [ENVS Colloquium — TBD](#)
- **Apr 2:** [NVIS Spring 2024 Seminar: Unraveling Ecosystem Challenges: Investigating Pinyon Decline and Big Sagebrush Resiliency; 12–1 pm MST](#) – Co-sponsored by the

WRRC

- **Apr 3–6:** [BSMAR18](#)
- **Apr 6:** [2024 Water Awareness Month Festival](#)
- **Apr 8:** [ENVS Colloquium — Dr. Luisa Ikner \(UArizona\)](#)
- **Apr 8–10:** [AWRA 2024 Spring Conference: Water Risk & Resilience: Research and Sustainable Solutions](#)
- **Apr 11–12:** [Law of the Rio Grande Annual Conference](#)
- **Apr 15:** [AHS Annual Academic Scholarships – Application Deadline](#)
- **Apr 15:** [ENVS Colloquium — ENVS Undergraduate Presentations](#)
- **Apr 16–17:** [NGWA Conference: Groundwater in the PFAS Era: Stressors, Protection, & Compliance](#)
- **Apr 18:** [Spring 2024 Tumamoc Talk: The Science and Wonder of Arizona Lighting – Ron Holle](#)
- **Apr 22:** [ENVS Colloquium — Dr. Beth Marlowe \(Quest Diagnostic Labs\)](#)
- **Apr 23–25:** [97th Annual AZ Water Conference & Exhibition Annual AZ Water Conference & Exhibition](#)
- **Apr 24–26:** [Santa Cruz River Research Days](#)
- **Apr 29:** [ENVS Colloquium — Dr. Jen McIntosh \(UArizona\)](#)
- **May 6–7:** [Law of the Colorado River Annual Conference](#)
- **May 7:** [NVIS Spring 2024 Seminar: ?Eleltek Waali? \(I'm Reading Country\); 12–1 pm MST – Co-sponsored by the WRRC](#)
- **Jun 1:** [2024 Central Arizona Project Award for Water Research — Abstract Deadline](#)
- **Jun 10–13:** [AWWA 2024 Annual Conference & Expo \(ACE24\): Transforming Our Water Future](#)
- **Jun 17–20:** [3rd International Groundwater-Agriculture Conference: Toward Sustainable Groundwater in Agriculture - Linking Science and Policy](#)
- **Jul 28–30:** [2024 Arizona Water Reuse Symposium](#)
- **Sep 30–Oct 2:** [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](#)