

WEEKLY WAVE



THE UNIVERSITY OF ARIZONA
COOPERATIVE EXTENSION

WATER RESOURCES RESEARCH CENTER



February 16, 2024 / Volume 12, Issue 7

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: Conference, TAAP, Rockefeller Grant, APW, Atmospheric Rivers

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WRRC 2024 ANNUAL CONFERENCE

IMPLEMENTING WATER SOLUTIONS THROUGH PARTNERSHIPS

Early Bird Registration Extended to Feb 23

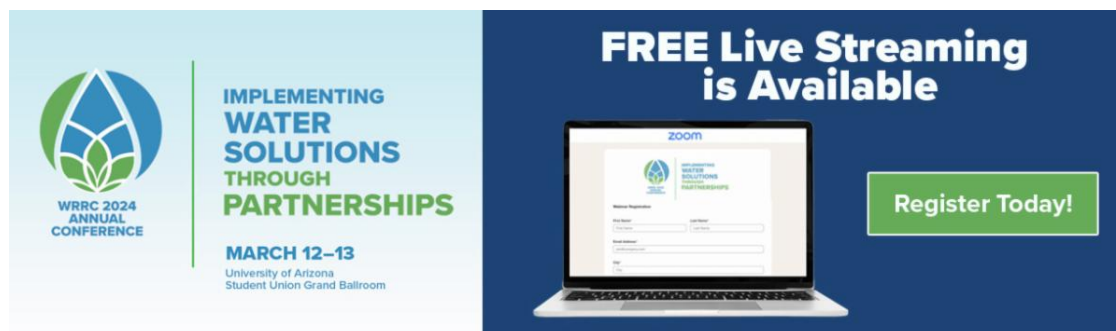
WRRC Conference Agenda Posted and Early Bird Registration Extended

A detailed draft agenda for the WRRC 2024 Annual Conference, *Implementing Water Solutions Through Partnerships*, is now available on our [conference website](#), and we have extended Early Bird registration until Friday, February 23. The conference will be

held in person on March 12–13 at the UArizona Student Union in Tucson. Our two-day program features over 40 speakers and poster presenters. Day 1 will start with remembrance and recognition of the legacy of Prof. Tom Meixner, followed by talks on a groundbreaking research program he initiated. The day will conclude with an evening reception and poster session, where attendees can network and check out the poster presentations while enjoying hors d'oeuvres and a cash bar. The Day 2 program is packed with speakers and panels covering a range of proposed and developing water solutions. We invite you to join us to engage in robust discussions focused on the partnerships and collaborations that help us achieve solutions to complex water challenges. If you are unable to make it to the in-person event, we are offering a free, noninteractive Zoom livestream, but we hope many of you will attend in person to join the conversation and network with colleagues and friends, old and new. The conference is less than a month away, so don't wait to register!

- [Early Bird Registration](#)
- [Draft Agenda](#)
- [More Info](#)

CONFERENCE UPDATES



The banner is split into two sections. The left section has a light blue background and features the WRRC 2024 Annual Conference logo (a stylized water drop with green leaves) on the left. To its right, the text reads: "IMPLEMENTING WATER SOLUTIONS THROUGH PARTNERSHIPS" in blue and green, followed by "MARCH 12–13" and "University of Arizona Student Union Grand Ballroom" in smaller text. The right section has a dark blue background and features the text "FREE Live Streaming is Available" in white. Below this is an image of a laptop displaying a Zoom meeting registration page. To the right of the laptop is a green button with the text "Register Today!" in white.

EVENTS

WRRC Water Webinar: Water for All: Global Solutions for a Changing Climate

Date: Tuesday, February 27, 2024

Time: 3:00 pm – 4:00 pm Arizona Time (2–3 pm PT)

Location: [Webinar Only](#)

Speaker: David Sedlak, *Plato Malozemoff Professor of Civil and Environmental Engineering, University of California, Berkeley, and Director, Berkeley Water Center*



The current approach to providing water is failing to meet the demands of the growing population and the challenges brought on by climate change. In *Water for All: Global Solutions for a Changing Climate* (Yale Univ Press: November 7, 2023), David Sedlak argues there are solutions to address global water shortages. He identifies the challenges, including ineffective policies and outdated infrastructure. The book also outlines the myriad of tools at our disposal to address the problem, from emerging technologies in desalination to innovations for

recycling wastewater and capturing more of the water that falls on fields and cities. Join this WRRC Water Webinar featuring David Sedlak to hear more about his new book and learn about his research and proposed solutions to address global water challenges.

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

Upcoming WRRC Events

- Feb 16: [WRRC 20th Annual Chocolate Fest; 4–5 pm MST](#)
- March 12–13: [WRRC 2024 Annual Conference: Implementing Water Solutions Through Partnerships](#)

Upcoming WRRC 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

“Crafting Binational Groundwater Agreements for Transboundary Aquifer Sharing” Published by Binational Team

[Leer en Español Aquí](#)



Published in January 2024 in *Water Economics and Policy*, the Policy Nook article titled “Crafting Binational Groundwater Agreements: Preconditions for Progress” examines the challenges impeding diplomatic advances in bilateral cooperation on transboundary aquifer sharing and explores opportunities, including a framework agreement for binational groundwater, to enhance stewardship of shared aquifers. Authored by a binational team from the US and Mexico, the article emphasizes the importance of addressing longstanding barriers to bilateral cooperation on groundwater and highlights the potential benefits of binational groundwater agreements between the two countries. The full article can be found [HERE](#). The authors hope that this article, along with the previously published paper, “Reaching Groundwater Agreements on the Border Between Mexico and the United States: Science and Policy Fundamentals,” stimulates dialogue on binational groundwater management along the border shared by Mexico and the United States.

- [Read the Article](#)
- [2022 Article](#)
- [WRRC TAAP Website](#)

Rockefeller Grant Awarded for Tribal Food Systems Project

With the help of a \$500,000 grant from the Rockefeller Foundation's Climate Exploration Fund, a new project aims to revitalize Tribal food systems and expand the cultivation of nutrient-dense Indigenous seeds in the Southwest. Michael Kotutwa Johnson, a traditional Hopi farmer and assistant specialist for Indigenous Resilience with the University of Arizona Cooperative Extension, and project partners are actively engaging with Tribal communities about the challenges they face. One issue the project seeks to address is diminishing biodiversity within Tribal cropping systems. Kotutwa Johnson stated, for example, that once 17 different varieties of Hopi corn seeds were grown, but only two or three of those are still being grown today. To address this, the project will grow at least two or three different varieties of Indigenous seeds for reintroduction into community farms. Kotutwa Johnson believes this will strengthen not only agricultural sustainability but also Indigenous resilience. Another key component of the project is upholding Indigenous data sovereignty and ensuring data generated from the study stays with the community it comes from.



Image: Michael Kotutwa Johnson works with Indigenous communities in the Southwest to revitalize varieties of seeds grown by Indigenous farmers that are adapted to survive in harsh climates.

[Read the Article](#)



APW is Awash with Talent

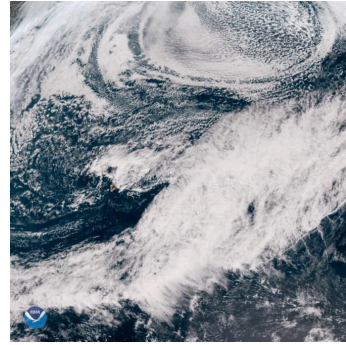
Two new Arizona Project WET (APW) Program Coordinators, Brian Valencia and Zakkai Markowitz, are based in the Water Resources Research Center this year. They are part of a dedicated state-wide team that develops, administers, and delivers water-focused, experiential, environmental education programs to Arizona's students and teachers. Through authentic, relevant, and meaningful engagement, they deepen the understanding of Arizona's water availability, accessibility, use, and conservation. These two put the F.U.N. in fundamental resource, navigating the Arizona Upland, empowering hydro-literate students, educators, leaders, and professionals to act as mindful, lifelong water stewards. Valencia, who joined the APW team in 2021, commented "On any given day I am teaching kids about the importance of water either in their classroom or in the field. Why water? Nothing is more important to where we live than water. My job allows me to educate children on the story and future of water in Arizona. This will ultimately make our great state a better place for everyone." When asked about their work, Markowitz stated "On any given day I'm booking, organizing, and delivering field trips for Southern Arizona's 4th graders! Why



water? I love the Sonoran Desert with all my heart. I have lived here my entire life, and its beauty still amazes me. Water is life in the desert, and I'm grateful to help the next generation understand how crucial it is."

Atmospheric River Drenches California

Southern California is still recovering after heavy rainfall overwhelmed the region with more than half its average yearly rainfall falling in only the first week of February. After the storms, there were 475 mudslides, 390 fallen trees, multiple water rescues, structural fires, damage to property, and multiple power outages reported in Los Angeles. The drenching storm event is attributed to an atmospheric river. Aptly named, these weather phenomena are narrow stretches of concentrated water vapor that move across the atmosphere carrying large quantities of precipitation. Across the Pacific coast, the "Pineapple Express," an atmospheric river that forms near Hawaii and travels above the Pacific Ocean from west to east, recurs every winter. California typically benefits from the seasonal rainfall, but this year the rain also brought destruction. On the benefits side of the ledger, facilities in Southern California were able to capture around 15,000 acre-feet of stormwater for recharge. The impact of these "rivers" on the Colorado River Basin depends on their flow paths. Snowpack increased in Colorado after the California downpour; however, that snow was attributed to a different weather system. Some scientists expect that atmospheric rivers can now hold about 5–15% more precipitation because of human-driven climate change. A warmer atmosphere holds more water, holding 4% more water for every degree Fahrenheit increase. Uncertainties about climate change impacts on atmospheric rivers remain, but we can expect storms to intensify as our climate warms.

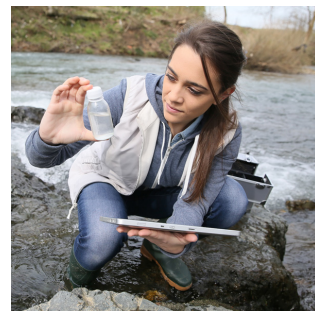


- [Learn About Atmospheric Rivers](#)
- [Captured Water Article](#)
- [Colorado River Impacts](#)

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**

-
- AZ NRCS [Civil Engineer \(Hydraulics/Hydrologic\)](#)

- MSU Dept of Fisheries and Wildlife & Institute for Water Research [Outreach Specialist \(Fixed Term\)](#)
- UW-Milwaukee Center for Water Policy [Water Policy Specialist](#)

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

NOTICES, PUBLICATIONS & MEDIA

Reclamation Publishes Overview of Colorado River Evaporation History

The Mainstream Evaporation and Riparian Evapotranspiration report looks at water surface evaporation, soil moisture evaporation, and plant transpiration. It will be used by Reclamation as a source of data as it manages regional water operations and to improve the agency's modeling efforts. [More Info](#)

The Call for Applications for 2024 Haury Native Pathways Graduate Research Awards Is Now Open!

The Agnese Nelms Haury Program in Environment & Social Justice is pleased to announce an open call for Native Pathways Graduate Research Award proposals to **support the research of graduate students** who bring knowledge and experience on matters relevant to Native American and Indigenous resilience. Graduate students from disciplines that specifically address Indigenous resilience are invited to apply. [More Info](#)

New Rules Proposed to Protect Communities from PFAS

The US Environmental Protection Agency (EPA) is proposing two new actions to prevent the spread of PFAS in the environment. The EPA would 1) require cleanup of PFAS at facilities that treat, store, or dispose of hazardous waste and 2) designate nine PFAS as "hazardous constituents." [More Info](#)

CALENDAR ANNOUNCEMENTS

- **Feb 16:** [WRRC 20th Annual Chocolate Fest; 4–5 pm MST](#)
- **Feb 19:** [ENVS Colloquium — TBD](#)
- **Feb 20:** [Info Session for the 2024 Haury Native Pathways Graduate Research Awards](#)
- **Feb 20:** [Advanced Irrigation Training for Conservation Professionals](#)
- **Feb 20:** [Stakeholder Meeting: Financing ADEQ's Monitoring Assistance Program \(MAP\)](#)
- **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 23:** [The Taste of Water: ASU Assistant Professor Christy Spackman Lecture](#)
- **Feb 23:** [WRRC 2024 Annual Conference](#) – Early Bird Registration Deadline **Extended!**
- **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:** [AHS 2024 Bouwer Intern Scholarship – Application Deadline](#) **Extended!**

- [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: WRRRC 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: ENVIS Colloquium — Dr. Thomas Lavanchy \(Oklahoma State University\)](#)
- [Mar 11–14: AWWA WateReuse 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 WRRRC](#)
- [March 12–13: WRRRC 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: ENVIS Colloquium — SEES Earthweek Keynote Speaker](#)
- [Mar 21: ENViSion Research Symposium](#)
- [Mar 25: ENVIS 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: ENVIS 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 WRRRC](#)
- [Apr 3–6: BSMAR18](#)
- [Apr 6: 2024 Water Awareness Month Festival](#)
- [Apr 8: ENVIS 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: ENVIS Colloquium — ENVIS 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: ENVIS 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: ENVIS Colloquium — Dr. Jen McIntosh \(UArizona\)](#)
- [May 6–7: Law of the Colorado River Annual Conference](#)
- [May 7: NVIS Spring 2024 Seminar: ?Eileltek Waali? \(I'm Reading Country\); 12–1 pm MST – Co-sponsored by the WRRRC](#)
- [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](#)