

WEEKLY WAVE



COLLEGE OF AGRICULTURE & LIFE SCIENCES
COOPERATIVE EXTENSION

**WATER RESOURCES
RESEARCH CENTER**



November 18, 2022 / Volume 10, Issue 32

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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Reflections, Photo Contest, Brown Bag Recap, APW, AWRA, Cochise County AMA



Reflections: Partnering to Address Food, Water, and Energy Security

The Colorado River Basin's water and energy problems are well chronicled in studies and news reports. With the Colorado River's low flows extending more than two decades and drawdown of water from Lakes Powell and Mead, water in storage is at historic lows. Moreover, the system's hydropower is in jeopardy. Most critically, a "crash" of the system, wherein water would not flow below Hoover Dam, could be more than just a bad

sci-fi story. Work is ongoing to develop a consensus strategy that, at the least, increases water delivery cutbacks substantially over those associated with the official 2007 federal guidelines for sharing shortage. Partnerships among stakeholders with diverse expertise, experience, and perspectives will be vital to restoring system security.

[Read More](#)

EVENTS

WRRC Co-Sponsored Event: Water and Agriculture: Chile-Arizona Experience

Date: Nov 29, 2022

Time: 11:00 am–1:00 pm Arizona Time

Location: [Webinar Only](#)

The Agricultural Office of the Embassy of Chile in the US and the WRRC are co-hosting the webinar *Water and Agriculture: Chile-Arizona Experience* on November 29 from 11 am to 1 pm Arizona time and 3 to 5 pm Chile time. Registration is now open for this webinar, which will bring together key stakeholders, decision-makers, scientists, water experts, and others to discuss the developing projects to advance sustainable water resources and agriculture management. The discussion panel will feature a distinguished group of commentators from Chile and Arizona, including the Chilean Embassy's Agricultural Attaché in the US Andres Rodrigues and CNR – Chile Head of Water Policies Javiera Herrera, along with the Yuma County Water Users Association General Manager Tom Davis, WRRC Director Sharon B. Megdal, and other knowledgeable UArizona specialists and researchers. Live translation of the webinar will be provided in both English and Spanish.



- [Register Here](#)
- [More Info](#)
- [Chile-Arizona Flyer \(English\)](#)
- [Chile-Arizona Flyer \(Spanish\)](#)

Native Voices in STEM Fall 2022 Seminar Series: An Indigenous Hydrogeochemist's Career Trajectory through Academia and Industry

Date: Nov 30, 2022

Time: 12:00 pm–1:00 pm Arizona Time

Location: [Webinar Only](#)

Speaker:

Kato Dee, Ph.D. (Diné), *Assistant Professor, School of Geosciences, University of Oklahoma*



Dr. Kato Tsosie Dee is a member of the Navajo Nation and is an Assistant Professor in the School of Geosciences at the University of Oklahoma with expertise in the areas of

hydrology and environmental geochemistry. Dr. Dee obtained his BS and MS in Geology from the University of Kansas and PhD in Geochemistry from the Colorado School of Mines. Dr. Dee started off his professional career in environmental consulting as a hydrogeochemist and then became the program director of the Colorado Mountain College Natural Resource Management program in Leadville, Colorado. Outside of his love of geoscience and hydrology, Dr. Dee enjoys trail running, skiing, and catching a good live show with his wife and boys.

[Join Via Zoom](#)
[More Info](#)

NEWS

WRRC Photo Contest Ends December 16

The deadline is approaching to enter your Arizona water photos in the WRRC 2022 Photo Contest. The theme this year is **Water Now! Living with Less**. As in the past, photos must be taken in Arizona and feature water (present or absent). Categories include *Water in Nature*, *Water in the Built Environment*, and *Water for Us* (animals, livelihoods, and recreation), with a special category of *Water in Arid/Semi-Arid Lands Beyond Arizona* for photographers who travel beyond our borders. Winners will be saluted at the February 2023 Chocolate Fest and winning photographs will be featured on the WRRC website. Photographs also will be used in WRRC publications and outreach materials. We've received a bunch of great submissions already. Keep them coming!



[More Info](#)
[Submit Your Photos](#)

Students Present 104(b) Grant Research

On November 10, two recipients of the 104(b) Grant Program presented their water-related research during a WRRC Brown Bag Webinar. Chandler Noyes, PhD candidate in Hydrology at UArizona's Department of Hydrology and Atmospheric Sciences, began by providing an overview of his research using environmental isotopes and noble gases to study groundwater recharge variations in the Tucson basin. In his study, Noyes used a new-age tracer, argon, as well as others, to fill in the time gaps and reveal the characteristics and resiliency of Tucson's groundwater resources during the mid-Holocene period to the present. Next, Simone A. Williams, PhD candidate in Arid Lands Resource Sciences at UArizona, shared her literature review research examining diversity, equity, inclusion, and justice in water dialogues. In her findings, she noted the importance of community engagement when conducting water governance or management. She emphasized that inclusion broadens diversity, enhances subject knowledge, and ensures water management effectiveness. In her presentation, Williams provided general guidelines to ensure environmental justice is upheld in water dialogue settings. The 104(b) grant is provided by the WRRC to fund student research on regionally relevant water topics. The grant is administered through USGS, and faculty and researchers at any of Arizona's state universities are eligible to submit project proposals. The upcoming Request for Proposals will be available in December 2022.





Southwest Urban Corridor Integrated Field Laboratory

In a continually warming climate, understanding how heat impacts everyday decisions, such as how we choose to travel, cool our homes, or spend time outdoors, is critical. By gathering data on our rapidly urbanizing southwestern communities, we can support scientists and policymakers in developing solutions that will help southwestern communities build resilience to a warming climate. Arizona Project WET (APW) is delighted to be a part of a \$25M grant by the [U.S. Department of Energy \(DOE\)](#) for the Southwest Urban Corridor Integrated Field Laboratory ([SW-IFL](#)), led by [Arizona State University](#) with the [University of Arizona](#), [Northern Arizona University](#), [Brookhaven National Laboratory](#), [Oak Ridge National Laboratory](#), and [IBM](#) for climate change modeling, observations, and resilient solutions. APW will lead teacher workshops each year in Pima, Pinal, Maricopa, and Coconino Counties to engage students in community science that will contribute to SW-IFL. Students will perform scientific investigations of heat by collecting data in their own schools and neighborhoods and using that data to answer their own research questions. Newly developed SW-IFL project datasets will be accessible to students so they can connect their research to the larger southwest community. APW is excited to collaborate with researchers to bring their work to life in the classroom and instill students with a passion and curiosity for climate science!



UArizona Well Represented at AWRA

On November 8, 2022, WRRRC Postdoctoral Researcher Valerisa Gaddy (Navajo Nation), Environmental Science PhD candidate Nikki Tulley (Navajo Nation), and undergraduate Hydrology and Atmospheric Sciences student Starlivia Kaska (Havasupai Tribe) joined Phil Ridgon (Yakama Nation) on the panel, *Tribal Priorities in Water Resources*, at the American Water Resources Association (AWRA) Annual Water Resources Conference. The panel was moderated by WRRRC Director Sharon Megdal. The insights on Tribal and personal water priorities and connections were well received by the full room, with many questions following the panelists' prepared remarks. The panel complemented that morning's plenary keynote by James Rasmussen of the Duwamish Tribe and the following panel on Diversity, Equity, Inclusion, and Justice, for which Director Megdal was a panelist. There she shared some of the WRRC's research on diversity and inclusion in water dialogues and educational efforts related to Indigenous perspectives on water resilience and water management.

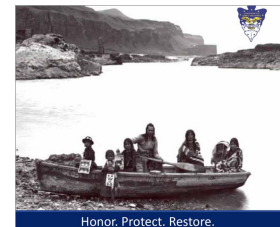


Image: Phil Ridgon, Yakama Nation

[AWRA Conference Website](#)

First Citizen Initiated AMA Approved by Voters

On November 8, 2022, residents in two southeastern Arizona groundwater basins voted on whether to put limits on groundwater use. In addition to a choice of state and local candidates for public office, in Cochise County and a part of Graham County, some ballots contained a choice between the status quo and formation of an Active Management Area (AMA) for regulating groundwater withdrawals. Voters in the Willcox Basin rejected the proposed AMA by a two-to-one margin, while voters in the Douglas Basin embraced it. Opposition by most agricultural and business interests was led by Rural Water Assurance, a Political Action Committee; a grassroots coalition of residents in both basins, spearheaded by the locally based Arizona Water Defenders, supported the measure.



Image: [Joseph Cook](#)

[Read More](#)



Happy Thanksgiving!

The Weekly Wave will not be published next week.
We'll be back on Dec. 2

WATER JOBS

- Center for Water Policy [Water Policy & Science Communications Graduate Student Research Fellowship](#)
- New Mexico Interstate Stream Commission [Hydrology Modeler / Water Resources Professional IV](#)
- Oklahoma State University [Assistant Professor, Irrigation Engineer](#)
- Oklahoma State University [Assistant Professor, Water Management](#)
- Watershed Management Group [Education Program Director](#)
- Watershed Management Group [Restoration Ecologist Project Manager](#)
- Western Regional Partnership (WRP) [Administrative Coordinator I](#)

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

ANNOUNCEMENTS

- **Nov 18:** [Groundwater Resources Association of California Conference: Climate Change Inundates Groundwater Industry - Topic Submission Deadline](#)
- **Nov 19:** [Tortolita Preserve BioBlitz Guided Observation Walks](#)
- **Nov 20:** [Native Voices in Film - Inhabitants and Finding Nemo in Navajo Screenings](#)
- **Nov 27-Dec 1:** [The 8th International Conference on Drylands, Deserts & Desertification: Learning from Drylands: A Global Effort Towards Ecosystem Restoration](#)

- **Nov 29:** [Water and Agriculture: Chile-Arizona Experience](#)
- **Nov 30:** [Native Voices in STEM Fall 2022 Seminar Series: An Indigenous Hydrogeochemist's Career Trajectory through Academia and Industry](#)
- **Dec 6:** [Confluence: The Colorado River at the Compact's Centennial](#)
- **Dec 6:** [CAP University: Deeper Dive on Power](#)
- **Dec 7:** [Water Education Foundation 2023 California Water Leaders Class – Application Deadline](#)
- **Dec 8:** [ADWR Supply and Demand Assessment Informational Meeting](#)
- **Dec 12:** [Growing Water Smart: Integrated Water and Land Use Planning Workshop – Application Deadline](#)
- **Dec 13:** [Common Good Challenge – Registration Deadline](#)
- **Dec 16:** [UCOWR Board of Directors 2023 Election – Nomination Deadline](#)
- **Jan 1, 2023:** [NGWA Conference: Managed Aquifer Recharge: Unleashing Resiliency, Protecting Groundwater Quality – Abstract Submission Deadline](#)
- **Jan 15, 2023:** [Campus Sustainability Fund Annual Grants – Preliminary Application Deadline](#)
- **Jan 27, 2023:** [Fifth National Climate Assessment Call for Public Comment – Submission Deadline](#)
- **Jan 30, 2023:** [2023 UCOWR/NIWR Annual Water Resources Conference – Abstract Deadline](#)
- **Feb 6-7, 2023:** [Groundwater Resources Association of California Conference: Climate Change Inundates Groundwater Industry](#)
- **Feb 15, 2023:** [Call for Papers: JCWRE Special Issue on Undergraduate Research and Education – Submission Deadline](#)
- **Feb 24, 2023:** [2023 Land and Water Summit – Registration Deadline](#)
- **Mar 1-3, 2023:** [2023 Land and Water Summit](#)
- **Apr 24-25, 2023:** [NGWA Conference: Managed Aquifer Recharge: Unleashing Resiliency, Protecting Groundwater Quality Conference](#)
- **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](#)
- **Jul 17-19, 2023:** [AWRA 2023 Summer Conference: Connecting Land & Water for Healthy Communities](#)

PUBLICATIONS & MEDIA

Research article: Mary-Belle Cruz Ayala & Cecilia Tortajada. 2022. “Managed Aquifer Recharge in Mexico: Proposals for an Improved Legal Framework and Public Policies.” *Water International*. <https://doi.org/10.1080/02508060.2022.2132668>

OTHER NOTICES

Growing Water Smart: Integrated Water and Land Use Planning Workshop

The Sonoran Institute and the Babbitt Center for Land and Water Policy are hosting their 4th Growing Water Smart workshop in Phoenix on March 6-8, 2023. They are now accepting applications from local governments and water providers interested in better addressing water resource management issues through land use plans and policies. There is no cost for selected teams. Applications are due on December 12, 2022. [More Info](#)

Confluence: The Colorado River at the Compact's Centennial

This event will be held at the UA Arizona on Tuesday, December 6, 2022, from 8 am – 5:30 pm and features an array of Colorado River experts speaking about critical topics along “America's Nile.” In addition to discussing current conditions and future options, they will celebrate the publication of the Colorado River Compact centennial volume, [***Cornerstone at the Confluence: Navigating the Colorado River Compact's Next Century***](#). Spaces are limited and open to the public, and in-person attendance is preferred. Refreshments will be served, books will be raffled, *Cornerstone* authors will be present, and a book reception will be held. For those unable to attend in person, Zoom attendance will be permitted by request. Please email requests to Amanda Leinberger at aleinberger@arizona.edu. [More Info](#)

Call for Abstracts: 2023 UCOWR / NIWR Annual Water Resources Conference

Abstract submissions are open for the 2023 UCOWR/NIWR Water Resources Conference, which will be held June 13-15, 2023, at Colorado State University. Abstracts (300 words max) for oral, poster, panel, lightning, and participatory presentations should be submitted electronically. The deadline to submit abstracts is January 30, 2023. Notification of acceptance will be in late February. [More Info](#)

Do you have a story idea, water job announcement, or event to share?
[Contact us here](#)