

WEEKLY WAVE



COLLEGE OF AGRICULTURE & LIFE SCIENCES
COOPERATIVE EXTENSION

**WATER RESOURCES
RESEARCH CENTER**



October 28, 2022 / Volume 10, Issue 29

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: Brown Bag Recap, Scholars Award, Mary-Belle Cruz Ayala, Factsheet, Rillito River Project, Phoenix Water



Clarion Call for Water Justice: Imagine a Day Without Water Panel

In honor of the national *Imagine a Day Without Water* campaign, the WRRC provided free, week-long access to the film *Thirst for Justice* and hosted a webinar with a panel of the film's affiliates. To expose the failures of environmental justice in communities with contaminated drinking water, the film follows community mobilizers in Flint, MI and the Navajo Nation in their efforts to fight for water justice. These activists highlight the physical, psychosocial, and political challenges stemming from the lack of clean water and

the implications on community health and well-being. The four panelists were the film's director, one of the film's main protagonists, an environmental health specialist, and a community mobilizer in Flint, MI. To start the webinar, Director and BBC Multi-Media Investigative Journalist, Leana Hosea, spoke about the film's production, her intention to feature heroines who are often leaders in the water movement, and her dedication to environmental justice coverage. One of the film's lead characters, Co-Founder/CEO of Sixth World Solutions and Navajo community activist Janene Yazzie, Environmental Health Specialist Chris Shuey, and Kettering University Professor of Mechanical Engineering Laura Sullivan continued the dialogue on water justice in underserved communities. Their "clarion call" focused on the lack of support for sustaining mitigation measures taken since the film's production, the continuing lack of research, and the need to transform water policies and systems to prioritize protecting lives in vulnerable communities.

- [Recorded Webinar](#)
- [More Info](#)
- [Thirst for Justice](#)

EVENTS

WRRC Brown Bag Webinar: 104(b) Grant Program: Student Research Presentations

Date: Nov 10, 2022

Time: 12:00 pm–1:15 pm Arizona Time

Location: [Webinar Only](#)

Speakers:

Chandler Noyes, *PhD Candidate, Hydrology, UArizona*

Simone A. Williams, *PhD Candidate, Arid Lands Resource Sciences, UArizona*



Variations in Groundwater Recharge During the Mid-Holocene Revealed in the Tucson Basin (Arizona, USA) Using Radioisotopes and Noble Gases

This WRRC Brown Bag presentation will cover research into the paleoclimate and past recharge rates of the Tucson Basin across the Holocene (past 12,000 years or so). Findings from this research show a general warming trend across the Holocene and ongoing, yet variable recharge across the Holocene corresponding to dramatic shifts in climate, and metrics besides groundwater age are needed to inform the resilience of groundwater resources.

Examining Diversity, Equity, Inclusion, and Justice in Water Dialogues

In the United States, the lack of diversity, equity, inclusion, and justice (DEIJ) in water governance and management has been identified as a serious problem that affects the validity of decisions. This WRRC Brown Bag presentation will share findings from a literature review conducted to understand DEIJ issues and identify strategies for addressing such issues in water dialogues.

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

Upcoming Events

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](#)

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 – Save the Date](#)

NEWS

Divine Kickingbird Receives First Rodney Blaine Lewis Scholars Award

The inaugural recipient of the Rodney Blaine Lewis Scholars Award is Divine Kickingbird, who is enrolled at the University of Arizona as a first-year law student and aims to join the graduate program in Tribal Governance. The establishment of this endowed award was announced at the WRRC's 2021 Annual Conference, *Tribal Water Resilience in a Changing Environment*. The award supports graduate students who are enrolled members of an Arizona Indian Tribe and who are enrolled in a program of study in water law, policy, or a closely related field. A member of the Navajo Nation, Kickingbird grew up understanding the importance of water and protecting the environment. Her childhood connection to agriculture and the environment began with summers spent helping her grandparents tend their farm. She says, "They instill a lot of traditional Navajo teachings to me while teaching me about agriculture." Kickingbird holds a Bachelor's in Psychology from Gonzaga University and a Master's in Forensic Science from Syracuse University. The occurrence of the Gold King Mine spill during her childhood sparked her concern about environmental issues, water rights, and water availability. Kickingbird's graduate studies helped her see how issues like missing and murdered Indigenous women and environmental issues are connected, inspiring her to pursue a law degree. We congratulate Divine Kickingbird on her selection for this award.



[More Info](#)
[Rodney Blaine Lewis' Legacy](#)

Mexican MAR and TAAP Science Presented by WRRC's Mary-Belle Cruz Ayala

On October 24, WRRC post-doctoral researcher Mary-Belle Cruz Ayala gave a presentation at the University of Arizona Environmental Science Fall Colloquium. Her presentation focused on two topics. First, Cruz Ayala discussed the implementation of managed aquifer recharge (MAR) projects in Mexico. MAR efforts in the Mexican Northwest would help maintain environmental services, halt seawater intrusion, and increase water availability for potable service. Second, she presented recent results of the Transboundary Aquifer Assessment Program (TAAP), focusing on the transboundary Santa Cruz River Basin. The semi-arid US-Mexico border region has faced increased vulnerability to water scarcity,



propelled by droughts, a warming atmosphere, population growth, and institutional asymmetries between the two countries. The TAAP represents a successful example of cooperation between the US and Mexico to better understand their shared aquifers.

[More Info](#)



Did You Know?

On average, 27% of Tucson's water demand is dedicated to outdoor irrigation. Rainwater harvesting can help to reduce reliance on drinking water for irrigation, as well as reduce water costs, localized flooding, and erosion. The City of Tucson offers a rebate program to promote both "passive" and "active" rainwater harvesting. Passive harvesting includes installing curb cuts and basins to collect stormwater from the street. Active harvesting includes installing cisterns and tanks to store rainwater for future use. Tucson's rebates are available for residential customers as well as businesses. To find out more about initiatives to conserve water in Pima County, check out the Pima County Water Factsheet here: <https://wrrc.arizona.edu/publications/factsheets/arizona-water-factsheet-pima-county>



Image: ["Tap Water" by Clint Budd](#)

Art Installation Calls Attention to Climate Change

In February 2022, the Rillito River Project (RRP) installed a provoking "No Water" sign in the dry bed of the Rillito River in Tucson. Founded in 2007, RRP serves to combine art and science to create environmental displays and performance art events that highlight the anthropogenic influences of climate change. This neon sign was installed to draw attention to the ongoing megadrought, the most severe drought that the west has seen in over 1200 years. Tucson-native, Ellen Benjoya Skotherim is the founder and creative director of RRP. She and Anthony Peter Gorny from New York were the main artists on the project.



Image: ["NO WATER" by AP Gorny](#)

[Rillito River Project](#)

Phoenix Water Hosts Colorado River Shortage Town Halls

Officials from Phoenix Water are hosting a series of town hall meetings about the upcoming 2023 Tier 2a Colorado River shortages and how the city will manage the water cuts. A news posting on the City of Phoenix website states, "These town hall meetings are another step in the vital process of informing, educating, and listening as everyone comes

together to understand this situation and search for viable solutions.” Each meeting will include a presentation from Phoenix Water, followed by time for questions from the attendees. Several meetings have already taken place. Upcoming meetings will be held in various locations around Phoenix on November 3, 9, 10, 12, 14, and 16. There will also be a virtual meeting on November 15 for those who cannot attend in person.

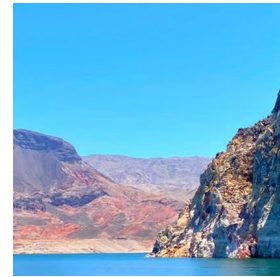


Image: Bureau of Reclamation

[Meeting Dates & Locations](#) [News Posting](#)

WRRC 2022 Photo Contest

WATER NOW!
Living With Less

Submit your photos!

WATER JOBS

- AMWUA [Water Policy Analyst](#)
- Arizona Water Banking Authority [Water Resources Specialist III](#)
- City of Tempe [Water Conservation Assistant](#)
- Town of Prescott Valley [Utilities Engineer](#)
- University of Arizona [Postdoctoral Research Associate I](#)

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

ANNOUNCEMENTS

- **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 1:** [FloodMAR Network People & Water: A Conversation with Rajendra Singh – Restoring Rivers and Access to Water in the Indian State of Rajasthan](#)
- **Nov 2:** [FloodMAR Network People & Water: A Conversation with Meredith Goebel – Geophysical Imaging](#)
- **Nov 3:** [FloodMAR Network People & Water: A Conversation with Stephen Marr & Patience Mususa – DIY Approaches to Climate Adaptation and Mitigation in Comparative Perspective: Problems and Prospects](#)
- **Nov 3:** [CAP Board Meeting – Livestream Available](#)
- **Nov 7:** [SCWC Fall Field Trip: Connecting with Our Watershed: Springs, Shallow Groundwater Areas, and River Restoration](#)
- **Nov 7-9:** [AWRA 2022 Annual Water Resources Conference](#)
- **Nov 8:** [Election Day – Five CAP Board Seats Up for Election in Maricopa County](#)
- **Nov 9:** [Water Education Foundation 2023 California Water Leaders Virtual Q&A](#)

- **Nov 9:** [Arizona Riparian Council Speaker Series: Andrew Holycross - A 30+ Year Study of a Montane Snake Community](#)
- **Nov 10:** [WRRRC Brown Bag Webinar: 104\(b\) Grant Program: Student Research Presentations](#)
- **Nov 12:** [ADWR Public Hearing: Proposed Hualapai Valley INA](#)
- **Nov 15:** [Phoenix Water Virtual Town Hall Meeting](#)
- **Nov 15:** [SCWC Fall Field Trip: Connecting with Our Watershed: Springs, Shallow Groundwater Areas, and River Restoration](#)
- **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](#)
- **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; 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 – Save the Date](#)
- **Dec 7:** [Water Education Foundation 2023 California Water Leaders Class – Application Deadline](#)
- **Dec 8:** [ADWR Supply and Demand Assessment Informational Meeting](#)
- **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](#)
- **Feb 15, 2023:** [Call for Papers: JCWRE Special Issue on Undergraduate Research and Education – Submission Deadline](#)
- **Apr 24-25:** [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

Almond Alert Podcast interviewed Family Farm Alliance executive director Dan Keppen in an episode titled "The Future of Western Water." [Watch Here](#)

Oxford Research Encyclopedia of Environmental Science

On October 19, the article "Managed aquifer recharge as a tool to improve water security and resilience," co-authored by WRRRC Post-doctoral Researcher Mary-Belle Cruz Ayala and Director Sharon B. Megdal, was published in the Oxford Research Encyclopedia of Environmental Science. It examines recent literature on how MAR facilities contribute to meeting water management objectives and increasing resilience in arid and semi-arid regions. This research identified four elements impacting MAR efforts: (1) the regulatory framework, (2) the role of nongovernmental actors, (3) the sources of financial support to create or maintain MAR facilities, and (4) the end use of the recharged water. The article is available at no cost to those with access to the University of Arizona library. [More Info](#)

OTHER NOTICES

Campus Sustainability Fund Preliminary Annual Grant Application

The Campus Sustainability Fund is pleased to announce that its Preliminary Annual Grant Application will open on November 14, 2022, and close on January 15, 2023. All students, staff, and faculty are invited to submit proposals that advance environmental and social sustainability on campus. These grants will award between \$5,000 - \$100,000. All applicants must attend a virtual office hour meeting with the committee prior to submitting their Preliminary Application. [More Info](#)

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

[Contact us here](#)