

# WEEKLY WAVE



COLLEGE OF AGRICULTURE & LIFE SCIENCES  
COOPERATIVE EXTENSION

**WATER RESOURCES  
RESEARCH CENTER**



**February 10, 2023 / Volume 11, Issue 6**

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:

Seminar Recap, WRRC Call for Solutions, Rio Verde, The Weather Channel, SARSEF



## WRRC Hosts Webinar on Importance of Indigenous Knowledge

On February 1, Bradley Moggridge gave a WRRC Special Presentation titled "Indigenous Knowledge and Methodologies to Inform Water Management." Moggridge is Murri from

the Kamilaroi Nation in Australia, where he is an associate professor in Indigenous Water Science at the University of Canberra and the President of the Australian Freshwater Science Society. In his presentation, Moggridge detailed the challenges that the Kamilaroi people currently face in water management. These include recovery from historical traumatic events, distrust of the Australian government, and the belief among non-Indigenous Australians that Indigenous knowledge is not credible. He described the Kamilaroi people as “custodians to the Australian land,” stating that as a descendant of Kamilaroi, he is obligated to care for the country and to fill the void in water management with Kamilaroi knowledge and science. The methodology he proposes is to decolonize water law by developing a First Peoples water council, to have water research led by First People, and to allow the First People to have documented water rights. Rounding out his presentation, Moggridge stressed the importance of celebration and collaboration between western and Indigenous science, not forgetting that one of the oldest surviving cultures in the driest inhabited continent needs to have a water voice because Indigenous knowledge and science can be the key to a sustainable water future.

*Image: Kamilaroi painting of a Thagaay, Golden Perch or Yellow Belly (Moggridge, 2004)*

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

## EVENTS



**FEB 10 AT 3:30 PM**  
WRRC CHOCOLATE FEST  
AND PHOTO CONTEST  
WINNER ANNOUNCEMENTS

### WRRC Brown Bag Webinar: A Living River – The Santa Cruz River from Mexico to Marana

**Date:** Wednesday, February 15, 2023  
**Time:** 12:00 pm – 1:15 pm Arizona Time  
**Location:** [Webinar Only](#)

**Speakers:**

Luke Cole PhD, *Director, Santa Cruz River Program, Sonoran Institute*

Madeleine Oliver, *Program Manager, Sonoran Institute*

Claire Zugmeyer, *Ecologist, Sonoran Institute*



The Santa Cruz River has long been the backbone of the region’s natural and cultural heritage. Although the river has changed since humans first arrived in the region 12,000

years ago, the river still exists and is a “living” entity that continues to support wildlife and communities along its course. Throughout Arizona, the release of effluent maintains flows of many river reaches. The Santa Cruz River is fortunate to have three stretches with effluent flows—one near Nogales in Santa Cruz County and two near Tucson in Pima County. Annual Living River reports communicate conditions in these stretches of the Santa Cruz River by presenting data on indicators of river health with easy-to-follow text and engaging graphics. This long-term monitoring program and communication tool is a key element of Sonoran Institute’s Santa Cruz River Program and makes use of diverse data sets collected by multiple agencies, serving as an important baseline of scientific information for river management decisions while also providing community members with approachable information about their local river.

*Image: Wikimedia Commons*

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

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## WRRC Seminar Series: Universal Access to Clean Water for Tribal Communities

**Date:** Wednesday, February 22, 2023  
**Time:** 12:00 pm – 1:15 pm Arizona Time  
**Location:** [Webinar Only](#)

**Speakers:**

Anne Castle, *Senior Fellow, Getches-Wilkinson Center, University of Colorado Law School*

Heather Tanana, *Assistant Research Professor, S.J. Quinney College of Law, University of Utah*



Access to clean drinking water is a fundamental human right. As highlighted by the COVID-19 pandemic, basic water and sanitation services are critical to public health and economic development. The federal government has treaty and trust responsibilities to promote the general welfare of Tribes. Although federal programs exist to support water-related projects in Indian country, these programs historically have been underfunded. As a result, many Native American households remain without access to clean drinking water or adequate sanitation. Recent federal actions are bringing the necessary attention and financial resources to make real, tangible progress toward providing universal access to clean water for all Americans. For the first time in history, this funding will enable the federal government to more fully deliver on its responsibilities to provide basic drinking water service to Tribes. This WRRC webinar will provide an overview of federal-tribal relations and the basis for realizing the human right to water in the United States. Panelists will identify existing federal programs that can facilitate clean water access and highlight opportunities for NGOs to amplify these efforts. Recognizing the importance of Tribal sovereignty and self-determination, panelists will also discuss how to build up Tribal capacity and the necessary resources for long-term success.

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

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## Upcoming Events



Mar 16 at 12:00 pm: [WRRC Seminar Series: Water in Cochise County: Challenges and Solutions](#)

Mar 29 at 12:00 pm: WRRC Seminar Series: Geophysical Imaging as a Tool for Groundwater Management: Rosemary Knight, Professor of Geophysics, Stanford University – Save the Date!

## MARK YOUR CALENDARS!



## NEWS

### Call for Solutions Open for WRRC Conference

In this era of drought, diminishing supply, and excessive demand, outside-the-box thinkers are putting their minds to work on what to do about the water situation, and they are trying to catch the attention of decision-makers and influencers. The WRRC is requesting solutions to Arizona's pressing water resources issues for presentation at its 2023 conference, to be held in person July 11-12 at the University of Arizona in Tucson.

The February 21 deadline to submit solution proposals is coming up soon. Creative thinking is needed across the board, and multiple solutions are likely to be required. Challenges addressed by conference presentations and posters may include, but are not limited to, supply, quality, conservation, environmental, agricultural, economic, justice, or any combination. Science, engineering, agriculture, industry, finance, law and government, education, and practical knowledge are all sources of solutions worth considering. Proposals should state how the solution addresses a pressing water issue, its development status (e.g., proof of concept, pilot stage, ready for full-scale implementation), any barriers to implementation, and its novelty (what's new, promising, or worthy of another look). **Submit proposals online by February 21, 2023, [here](#).**



*Image: Nicole Miller, WRRC 2021 Photo Contest*

### [Submit Your Solutions Proposal](#)

### Water Reliability Issues Raised by Rio Verde Cutoff

The water situation in a community east of Phoenix has garnered national attention since Scottsdale stopped providing water to residents there. To be clear, the Rio Verde Foothills community did not receive water directly from the Scottsdale



utility; they received water from water tankers filled with water from Scottsdale to truck to Rio Verde homes. According to *High Country News* (HCN) reporting, Rio Verde Foothills is “[a]n affluent community with a median home price of \$825,000 [that] offered homebuyers cheap land, good schools and mountain views—but not ... a stable water supply.” They lack the assured 100-year water supply of subdivisions in the Phoenix area largely because developers took advantage of the exemption for six or fewer lots to circumvent water supply regulations. Proposals such as the formation of a domestic water district have been put forward to address the plight of residents, and the story continues to develop. Last week, an HCN reporter talked with the WRRRC’s Susanna Eden about the broader water issues involved. Their Q&A was published on February 3 and can be accessed [here](#). Read more about Rio Verde Foothills water in the various article links below.

*Image: Mary Ann Capehart*

- [High County News Article](#)
- [The Guardian Article](#)
- [Arizona Republic Article](#)
- [Newsweek Article](#)
- [Scottsdale Progress Article](#)
- [East Valley Tribune Article](#)

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## WRRC Director Megdal Interviewed on The Weather Channel

WRRC Director Sharon Megdal was recently interviewed for two segments on The Weather Channel, offering her perspective on water policy in light of the shortages plaguing the Southwest. In the first clip, “Tucson’s Secret Water Stash,” interviewer Dave Malkoff speaks with Tucson Water Director John Kmiec about how the city banks water for the future using aquifer recharge basins. In “The Impact of Megadrought on Farmers in the West,” Malkoff visits Caywood Farms, where Nancy Caywood Robertson talks about the future of agriculture in Pinal County and the changes the family has made on their farm to adapt over time to having less and less water for irrigating their fields. Director Megdal commented, “At the same time we’re looking at less water, we’re looking at greater demand for food in the world.” Both clips are available to view on YouTube.



*Image: Peter Mayer, WRRC 2017 Photo Contest*

## [Tucson’s Secret Water Stash](#) [The Impact of Megadrought on Farmers in the West](#)

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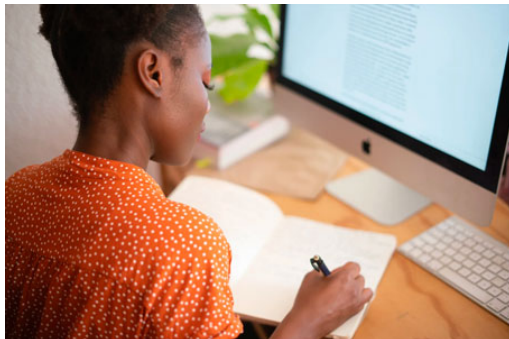
## Judges Needed for SARSEF

The Southern Arizona Regional Science and Engineering Fair (SARSEF) is an annual event that has been promoting the study of science and engineering among school-age children and teens for more than 60 years. The Tucson Chapter of the Arizona Hydrological Society (AHS) and the AHS Foundation (AHSF) participate annually as sponsored award judges, giving \$25 to \$100 awards to students in grades K–12 for hydrology science projects. Volunteer judges will choose a grade group



(K–3, 4–7, 8–12), and judging will take place between March 4 to 11, depending on the specific grade group. Because of COVID-19, SARSEF has been virtual for the past two years, and judging this year will once again be virtual. If you would like to judge a grade group in this fun and beneficial event, please email David Barnes at [SARSEF@azhydrosoc.org](mailto:SARSEF@azhydrosoc.org) by Tuesday, February 28.

## [More Info](#)



## WRRR 104 GRANTS

Water Scarcity and Availability • Water-Related Hazards and Climate Variability • Water Quality  
Water Policy, Planning, and Socioeconomics  
Ecosystem and Drainage Basin Functions •  
Water Technology and Innovation • Workforce  
Development and Water Literacy.

[MORE INFO](#)

## WATER JOBS

- Bureau of Reclamation [Civil Engineer](#)
- The Water Report [Paid Internship](#)
- University of Nebraska-Lincoln [Postdoctoral Research Associate](#)

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

## ANNOUNCEMENTS

- **Feb 10:** [WRRR 19<sup>th</sup> Annual Chocolate Fest and Announcement of 2022 Photo Contest Winners](#)
- **Feb 10:** [ADWR Water Awareness Month 2023 Kick-Off Festival – Registration Deadline](#)
- **Feb 15:** [Arizona Water Protection Fund Commission Public Hearing](#)
- **Feb 15:** [WRRR Seminar Series: A Living River – The Santa Cruz River from Mexico to Marana](#)
- **Feb 15:** [Call for Papers: JCWRE Special Issue on Undergraduate Research and Education – Submission Deadline](#)
- **Feb 16:** [A Meeting of Sacred Waters 2023](#)
- **Feb 16:** [Santa Cruz River Research Days – Call for Abstracts Deadline](#)
- **Feb 18:** [AHS Tucson Chapter: Mission Garden, Mission San Agustín, and S-cuk Son Tour](#)
- **Feb 21:** [WRRR 2023 Annual Conference: What Can We Do? Solutions to Arizona's Water Challenges – Solutions Proposal Deadline](#)
- **Feb 22:** [WRRR Seminar Series: Universal Access to Clean Water for Tribal Communities](#)
- **Feb 22:** [104\(b\) Grant Program – Proposal Submission Deadline](#)
- **Feb 23:** [AZ Conservation Professional Training: Residential Water Use and Field Training](#)
- **Feb 23-24:** [2023 Family Farm Alliance Annual Conference: “A Wake Up Call for America: Why Farms, Water and Food Matter”](#)

- **Feb 24:** [2023 Land and Water Summit – Registration Deadline](#)
- **Feb 26:** [2023 WaterReuse Symposium – Advance Registration Deadline](#)
- **Feb 28:** [Arizona Project Wet – Littleton Water Festival](#)
- **Mar 1:** [NVIS Seminar Series: Ruth Plenty Sweetgrass-She Kills presents "Food Sovereignty for the Mandan, Hidatsa, and Arikara People"](#)
- **Mar 1:** [104\(g\) Grant Program – Proposal Submission Deadline](#)
- **Mar 1:** [Tucson AHS Chapter 2023 Halpenny Intern Scholarship – Application Deadline](#)
- **Mar 1:** [Babbitt Center Dissertation Fellowship Program – Application Deadline](#)
- **Mar 1:** [UArizona ALVSCE Research Awards – Call for Nominations](#)
- **Mar 1:** [Land and Water Summit: "Acequias – The Legacy Lives On" Film Screening and Discussion](#)
- **Mar 1-3:** [2023 Land and Water Summit](#)
- **Mar 2-4:** [2023 Native Women in Agriculture & Natural Resources Symposium](#)
- **Mar 2-7:** [2023 American Indian Higher Consortium Conference](#)
- **Mar 5-8:** [2023 WaterReuse Symposium](#)
- **Mar 6:** [2023 AHS Symposium – Call for Abstracts Deadline](#)
- **Mar 6-7:** [Arizona Viticulture Strategic Planning Summit](#)
- **Mar 6-8:** [Growing Water Smart: Integrated Water and Land Use Planning Workshop](#)
- **Mar 9-10:** [Sustainable Water Investment Summit](#)
- **Mar 11:** [Sustainable Landscapes Expo](#)
- **Mar 13-17:** [UC Davis Soil & Water Assessment Tool \(SWAT\) Model Training Course](#)
- **Mar 16:** [WRRC Seminar Series: Water in Cochise County: Challenges and Solutions](#)
- **Mar 21:** [AWRA 2023 Annual Water Resources Conference – Topical Session Proposal Deadline](#)
- **Mar 22-24:** [2023 Annual Native FEWS Gathering](#)
- **Mar 29:** [Santa Cruz Watershed Collaborative \(SCWC\) Spring 2023 Forum – Field Day](#)
- **Mar 29:** [WRRC Seminar Series: Geophysical Imaging as a Tool for Groundwater Management; Rosemary Knight, Professor of Geophysics, Stanford University – Save the Date!](#)
- **Apr 1:** [ADWR Water Awareness Month 2023 Kick-off Festival](#)
- **Apr 3:** [Rodney Blaine Lewis Scholars Award – Application Deadline](#)
- **Apr 5:** [NVIS Seminar Series: Staci Emm & Reginald Premo](#)
- **Apr 6:** [Santa Cruz Watershed Collaborative \(SCWC\) Spring 2023 Forum – Conference Day](#)
- **Apr 17-20:** [90<sup>th</sup> Annual Western Snow Conference](#)
- **Apr 20-21:** [Santa Cruz River Research Days](#)
- **Apr 24-25:** [NGWA Conference: Managed Aquifer Recharge: Unleashing Resiliency, Protecting Groundwater Quality Conference](#)
- **May 3:** [NVIS Seminar Series: Chantel Harrison \(Diné\) & Jaymus Lee \(Diné\) Present "Community Engaged Indigenous Hydroponics and Greenhouse Project"](#)
- **May 5:** [32<sup>nd</sup> Desert Horticulture Conference](#)
- **May 7-10:** [National Association of Environmental Professionals \(NAEP\) 2023 Conference](#)
- **May 8-11:** [Water for Food Global Conference: Cultivating Innovation: Solutions for a Changing World](#)
- **May 9-10:** [2023 Corridors, Connectivity, and Crossings Conference](#)
- **May 9-11:** [96<sup>th</sup> Annual AZ Water Conference & Exhibition](#)
- **May 18-19:** [CLE International's Law of the Colorado River 23<sup>rd</sup> Annual Conference: The Next Century of River Policy](#)
- **May 19:** [NAMWUA Water Utility Leadership Forum \(WULF\)](#)
- **Jun 13-15:** [UCOWR/NIWR 2023 Annual Water Resources Conference](#)
- **Jun 15-16:** [2023 Next Generation Water Summit](#)
- **Jul 11-12:** [WRRC 2023 Annual Conference: What Can We Do? Solutions to Arizona's Water Challenges – Save the Date!](#)



- [Jul 17-19: AWRA 2023 Summer Conference: Connecting Land & Water for Healthy Communities](#)
- [Nov 6-8: AWRA 2023 Annual Water Resources Conference](#)

## OTHER NOTICES

### **WaterSMART Recycling and Desalination Funding**

The WaterSMART program at the Bureau of Reclamation is offering grant awards of up to \$5,000,000 for selected projects. The program funds feasibility studies, planning, preliminary design, and environmental compliance activities for water recycling and desalination projects that supplement existing freshwater supplies in urban and agricultural areas in the Western United States. The deadline for this funding opportunity is February 28, 2023, at 5 PM MST. [More Info](#)

### **WaterSMART Environmental Water Resources Project**

The Bureau of Reclamation will provide up to \$3 million in Federal funding for water supply projects that cost \$6 million or less and can be completed in three years. The funding will be provided in the form of a 75% Federal cost-share for projects that demonstrate an increase in water supply reliability for ecological values, have been developed through a collaborative process, and align with established strategies or plans to increase water supply reliability for consumptive and non-consumptive ecological values. All applications are due March 28th, 2023 at 4 PM MST. [More Info](#)

### **Call for Volunteers: Avondale's Project WET Water Festival**

Littleton School District is searching for volunteers for its 6<sup>th</sup> Annual Water Festival, an educational field day event that instills a deeper understanding of water in the earth's system and Arizona's water resources. The Littleton Water Festival will be held at Estrella Vista Elementary school in Avondale, AZ, on February 28. [More Info](#)

### **Advanced Smartscape: Urban Forest Management**

Enhance your knowledge & skills in urban tree work! Registration is open for the UArizona Maricopa County Cooperative Extension 2023 Advanced Smartscape: *Urban Forest Management* course. Classes will take place on Tuesdays and Wednesdays, March 15, 21, 22, and 28, from 3:00 pm to 6:00 pm. Due to the rapid pace of the classes, completion of Smartscape is a prerequisite to registering for the course. The course builds upon the basic Smartscape experience by offering in-depth training for landscape professionals on the selection, installation, and aspects of maintenance of trees and large shrubs. [More Info](#)

### **New explainer from Know Your Water News**

The Colorado River has again dominated headlines with a [six-state letter](#) sent to the Bureau of Reclamation on January 30. That letter was in response to Reclamation's public scoping process for a Supplemental Environmental Impact Statement (SEIS) that intends to supplement the 2007 Interim Guidelines (part of the [Law of the River](#)). Know Your Water News created an explainer to delve into the basics of this federal process and explain new terminology. [More Info](#)

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

[Contact us here](#)