

WEEKLY WAVE



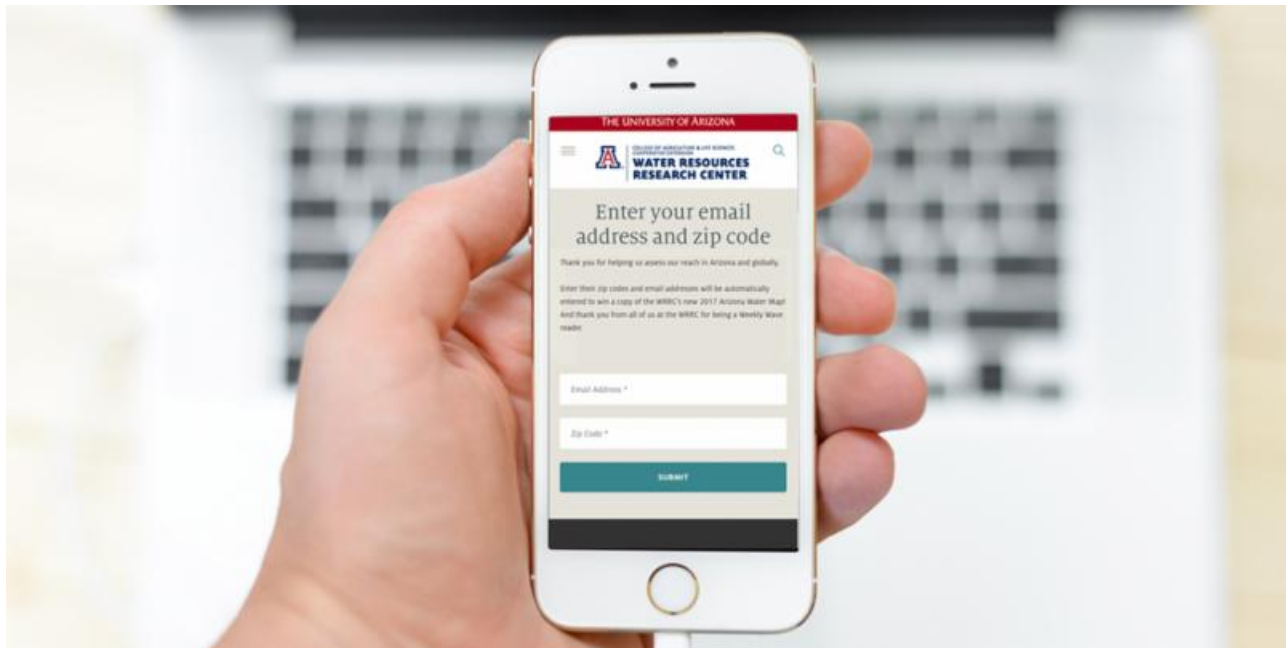
COLLEGE OF AGRICULTURE & LIFE SCIENCES
COOPERATIVE EXTENSION

**WATER RESOURCES
RESEARCH CENTER**

November 17, 2017 / Volume 5, Issue 32

The [Water Resources Research Center](#) - a research and [Extension](#) unit of the [College of Agriculture and Life Sciences](#)

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Enter to Win a WRRC Arizona Water Map!

The WRRC is currently collecting metrics on the 'reach' of our Weekly Wave newsletter. At the WRRC, our mission includes engaging stakeholders throughout the state, region, and beyond. We want to know how well we are accomplishing this mission. Please help us determine where our Weekly Wave readers are by clicking on the link below and entering your zip code.

All those who use the link to enter their zip codes and email addresses will be automatically entered to win a copy of the WRRC's new 2017 Arizona Water Map! And thank you from all of us at the WRRC for being a Weekly Wave reader.

[Enter Zip Code](#)

WRRC EVENTS

WRRC Brown Bag - Camo, Hose Clamps, and Pixels: Arizona's Approach for Low-cost Intermittent Stream Monitoring

December 6, 2017

Time/Location: 12:00 p.m. - 1:15 p.m. / WRRC Sol Resnick Conference Room (350 N. Campbell Ave.)

Speaker: Meghan Smart, Environmental Scientist, ADEQ



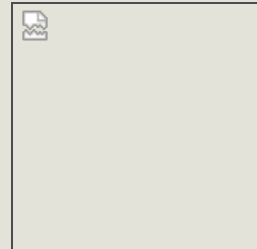
If a picture is worth a thousand words, why not extrapolate from digital pixels and use that as a low cost, continuous, and unambiguous method to study intermittent streams? Arizona's 6,000 miles of intermittent streams are understudied because they are logistically difficult to sample and because perennial streams are historically thought of as 'more important'. The Arizona Department of Environmental Quality (ADEQ) developed an intermittent stream monitoring program using time-lapse photography and a probabilistic approach to fill the large data gap.



If you can't make it to the seminar on December 6, join us online [here](#).

Looking Ahead

- **January 17** - George Frisvold, *Professor, Specialist AREC*
- **January 23** - Cynthia Wallace, *USGS Research Geographer*
- **February 6** - Maria Dadgar, *Executive Director of ITCA*
- **February 20** - Jacob Petersen-Perlman, *Research Analyst WRRC* and Sharon B. Megdal, *Director WRRC*
- **February 22** - John Fleck, *Author "Water is Worth Fighting Over"*
- **March 13** - Ben Wilder, *Interim Director, Tumamoc Hill*
- **April 12** - Felicia Marcus, *Chair, CA State Water Resources Control Board*



Check out all of our upcoming events and videos of previous events on our [website](#)

OTHER EVENTS

AZ Water Luncheon - The Town of Marana's Water Reclamation Facility Phase 1 Expansion Project

December 7, 2017

Time/Location: 11:30 a.m. - 1:00 p.m. / Hotel Tucson City Center (475 N. Granada, Tucson)

Speaker: Stephen Dean, Town of Marana



Stephen Dean of the Town of Marana will briefly describe and illustrate the Water Reclamation Facility (WRF) Master Plan, Design, and Construction Manager-At-Risk (CMAR) for the Town of Marana's WRF Phase 1 Expansion, which was implemented in order to help meet the overarching goals of the community.

Sponsorships allow up to four students to attend this luncheon at no charge, but pre-registration is mandatory. Students interested in this opportunity are encouraged to contact [Carol Johnson](#).

[Register](#)

NEWS

AWRA at the Tualatin River Watershed

WRRC Director Sharon B. Megdal participated in the annual conference of the American Water Resources Association, which was held in Portland, Oregon November 5-9. Prior to the start of the conference, she participated in a field trip to the Tualatin River Watershed in Northwest Oregon, which is home to one of the Nation's largest and most successful landscape conservation programs. In the past 12 years, this program has successfully restored more than 120 river miles (10 plus river miles annually) across more than 25,000 acres in the rural and urban communities of Washington County. Bruce Roll and Robert Emanuel (who received his Ph.D. from the University of Arizona) of [Clean Water Services](#) conducted the tour. At the conference, Director Megdal's short lightning talk and two conference presentations provided reflections on her international work and reported on recent work on groundwater governance and management.



Photo Credit: Sharon B. Megdal taken during the Tualatin River watershed field trip

[Presentations](#)

WRRC Graduate Student Presents TAAP GIS and Mapping

WRRC Graduate Research Assistant Elia Tapia presented on mapping efforts related to the Transboundary Aquifer Assessment Program at the University of Arizona's 2017 International GIS Day event on November 15th. Hosted by UA Libraries, the event comprised series of talks, posters, and a demonstration and workshop showing how GIS is and can be used in research and teaching at the University of Arizona. Tapia discussed the binational efforts that resulted in 20 maps on the binational Santa Cruz Aquifer Basin's hydrology, climate, hydrogeology, water quality, and other basin characteristics. She also discussed some of the challenges associated with creating the maps. These challenges included merging of different classification systems and harmonizing measurement units and cartographic units.

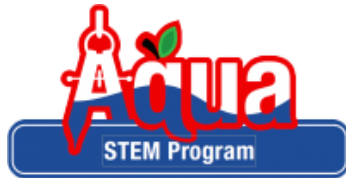


[GIS Day](#)

Student Scientists Study the Rio



Salado



Arizona Project Wet introduced its new Aqua STEM program this November; with the goal of helping students see themselves as scientists

and teaching them to better understand the importance of Arizona's rivers. One hundred thirty students from two different schools visited the Rio Salado Restoration Habitat in Phoenix recently to determine the health of the riparian area.

Groups of "habitat hunters" eagerly combed the area, searching for signs of animal life. "Look, there's a bird's nest!," squealed one excited student! Others ran over to get a closer look.



On the riverfront, students scooped up samples of mud and muck to determine what types of aquatic organisms thrive in the Salt River. Other student scientists could be seen using meters, field guides, and test kits to check the quality of the water, assess vegetation, and determine soil types. In the end, the students reached the conclusion the Rio Salado habitat is not only healthy but a fun place to visit.

[Learn About Aqua STEM](#)

Flagstaff's Wastewater Scores Well in NSF-Funded Study



On Friday, November 3, WRRRC Associate Director Jean McLain traveled to Flagstaff, Arizona to attend the final meeting of the Expert Advisory Panel on Emerging Contaminants. The panel, formed in 2013 at the behest of Flagstaff's City Manager, was tasked with examining the microbiological and chemical quality of recycled water from Flagstaff's Rio de Flag and Wildcat Hill Wastewater Treatment Facilities. Formation of the panel, made up of 15 renowned environmental and medical scientists, was in response to heightened public concern after a summer 2012 study identified antibiotic resistance genes in the Flagstaff's recycled water system. Questions raised by the panel were incorporated into a NSF proposal led by panel member Amy Pruden of Virginia Tech University to compare antibiotic resistance levels in recycled and potable water systems from four municipalities throughout the U.S. The results of the NSF project, distributed during the November 3 meeting attended by Flagstaff's elected officials and the interested public, included high marks for the microbiological quality of Flagstaff's water systems.

[Read Article](#)

New AZ Water Student Chapter Signing Up Members for First Meeting



Are you an undergraduate or graduate student with interest in the water industry? Perhaps you are studying engineering, water resources, or have interest in public policy or customer service. If so, please come to the inaugural meeting of the University of Arizona Student Chapter of AZ Water. The main goal of this group will be networking and knowledge-sharing among young water professionals from throughout the state. Students from NAU and ASU report that participation in their Student Chapters helped them to form relationships that enhanced their career opportunities. At the first meeting, you will have a chance to meet Student Chapter

Faculty Advisors, Bob Arnold of Environmental and Chemical Engineering and Jean McLain of the Water Resources Research Center. The meeting will be held on Friday, December 1, from 3:00 to 4:00 p.m. in Harshbarger 206, followed by a Happy Hour at Gentle Ben's.

[Register](#)

UA Agricultural Conference Highlights Water Issues

A one-day conference and panel discussion, the Future of Arizona Agriculture: 10 Years and Beyond, held at UA on Friday, November 3rd, featured talks on major challenges facing Arizona agriculture by UA faculty experts. Panel One: Challenges & Opportunities addressed water issues as well as trends in agricultural production and trade. Paul Brown, Associate Director of CALS Extension Programs, provided fundamental information on agricultural water use for irrigation, while Bonnie Colby, Department of Agricultural and Resource Economics, highlighted key challenges and potential solutions, including the new role of Indian communities in water management. In Panel Two: Emerging Niches and Technology Innovations, Edward Martin, Director, Maricopa County Cooperative Extension, suggested greater use of reclaimed water for agriculture as one solution to relieving the pressures on available water supplies, but acknowledged that other solutions are needed where reuse is not feasible. Other speakers focused on how new approaches to agricultural production are likely to reshape the industry. Lively and informed comments and questions enriched the discussion after each panel.



Conference speakers included from left Drs Paul Brown, Russell Tronstad, Turki Al Rasheed, Bonnie Colby, and Satheesh Aradhyula.

[Agenda](#)

For more in-depth coverage of agricultural water issues, see the WRRC's [2017 Annual Conference, Irrigated Agriculture in Arizona: A Fresh Perspective](#), where videos and presentations from the March 28, 2017 event are posted.

Do You Have Accounting Skills? Join Our Team at the WRRC

The Department of Soil, Water and Environmental Science (SWES) and the Water Resources Research Center (WRRC) are seeking an internal candidate for the position of Accountant, Associate, who will perform a wide range of detailed and complex financial activities supporting the WRRC's research and extension initiatives. This position will report directly to the Business Manager, Senior in the Department of SWES. The successful candidate will join the team of faculty and staff located at the WRRC to support financial aspects of their programs, including Arizona Project WET.



The successful candidate must be self-motivated and able to work independently. The candidate should also understand that this position is integral to the successful operation of WRRC and therefore, the success of the center's core mission. This position is open to all UA employees.

[Job Description](#)

No Weekly Wave During Thanksgiving Holiday Week



The WRRC will be closed November 23-24, 2017 in observance of the Thanksgiving Holiday. Due to the closure, there will be no Weekly Wave on November 24. The next edition will appear the following Friday, December 1. We at the WRRC would like to wish you all a Happy Thanksgiving.

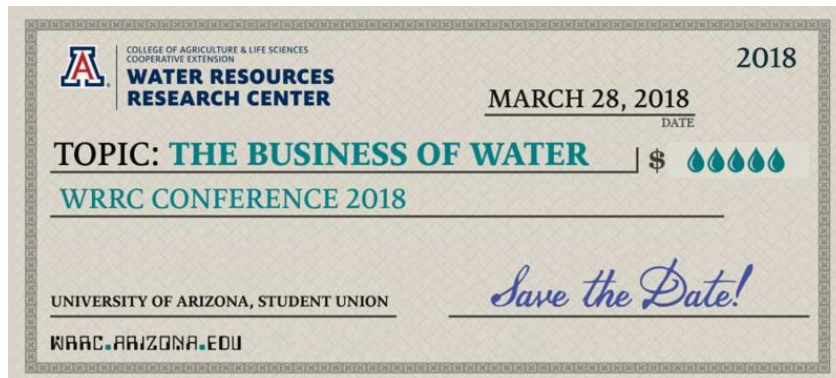



As we express our gratitude, we must never forget that the highest appreciation is not to utter words, but to live by them. ~John Fitzgerald Kennedy

ANNOUNCEMENTS



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2018
MARCH 28, 2018
DATE
TOPIC: THE BUSINESS OF WATER | \$ 
WRRC CONFERENCE 2018
UNIVERSITY OF ARIZONA, STUDENT UNION
WRRC.ARIZONA.EDU
Save the Date!

- [New Publication - Arizona's Agribusiness System: Contributions to the State's Economy](#)
- [November 18 9th Annual Pedal with Purpose - Tour de Tucson](#)
- [December 15 JCWRE Open Issue - Call for Papers](#)
- [December 15 MSSC Student Scholarship Program - Applications Due](#)
- [January 26-27 Urban Waterfronts Conference](#)
- [February 5 2018 Borlaug CAST Communication Award - Nominations Due](#)
- [February 8-9 Western Water Law](#)
- [February 22-23 2018 Land and Water Summit](#)
- [February 26-27 Groundwater Policy and Management in the Southwest](#)
- [March 25-28 Sustainable Water Management Conference](#)

WATER RESOURCES RESEARCH CENTER

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