

# WEEKLY WAVE



COLLEGE OF AGRICULTURE & LIFE SCIENCES  
COOPERATIVE EXTENSION

**WATER RESOURCES  
RESEARCH CENTER**

**October 4, 2019 / Volume 7, Issue 22**

The Water Resource 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

In this issue: [Santa Cruz River](#) / [In the News](#) / [Project Harvest](#) / [Video](#) / [Where Are They Now](#)



## Education Coordinators from Across the U.S. Share Ideas and Knowledge

It was extraordinary! That's what many state coordinators said about the [2019 Project WET Coordinators Conference and Training](#) held in Tucson last week. We can thank the APW team who made it happen.

A regional greeting featuring an excerpt from Regents' Professor Ofelia Zepeda's Prophecy poem kicked off the conference. APW offered a behind-the-scenes look at our Arizona Water Festival model, which now delivers 28 festivals per year. We dove into STEM instruction with underwater robots, offering others a chance to partner with Marine Advanced Technology Education as APW has done in Arizona. To help coordinators adhere to the Next Generation Science Standards, we used extreme weather phenomena to demonstrate meaningful, student-centered instruction.

Read the entire news article [here](#).

## WRRC EVENTS

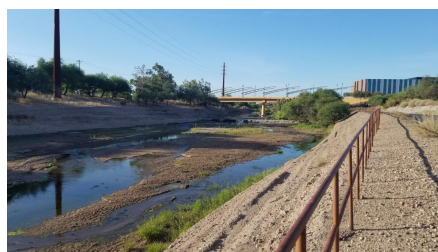


The banner features a signpost with three directional signs. The top sign points right and reads 'WRRC ANNUAL CONFERENCE 2020 WATER AT THE CROSSROADS: The Next 40 Years'. The middle sign points left and reads '1980 GROUNDWATER MANAGEMENT ACT'. The bottom sign points right and reads 'SAVE the DATE FRIDAY, MARCH 27, 2020 UNIVERSITY OF ARIZONA WATER RESOURCES RESEARCH CENTER Black Canyon Conference Center 9440 N 25th Ave, Phoenix, AZ 85021'. The website 'wrrc.arizona.edu' is at the bottom right.

### WRRC Brown Bag - An Update on the Santa Cruz River Heritage Project

October 8, 2019

**Speakers:** Maya Teyechea, Project Hydrologist and Dick Thompson, Lead Recharge Hydrologist, Tucson Water



**Time/Location:** 12:00 p.m. - 1:15 p.m., WRRC Sol Resnick Conference Rm., 350 N. Campbell Ave., Tucson.

The Santa Cruz River Heritage Project recharges reclaimed water and establishes a riparian area in downtown Tucson. This presentation will present how Tucson Water planned, permitted, and executed the project and its current operation. The presentation includes observations made so far, as well as some future expectations.

[Register for Brown Bag Webinar](#)

### WRRC Brown Bag - Lesson Learned from the 2018 E. coli Outbreak Investigation and the Future of Food Safety

October 16, 2019

**Speakers:** Channah Rock, Professor and Water Quality Specialist, Department Environmental Science, University of Arizona



**Time/Location:** 12:00 p.m. - 1:15 p.m., WRRC Sol Resnick Conference Rm., 350 N. Campbell Ave., Tucson.

The University of Arizona is researching the Spring 2018 E. coli contamination of Yuma-grown

romaine lettuce to help determine environmental influences on bacterial persistence and distribution in the Yuma agricultural region. The goal of the work, which is being conducted in partnership with the U.S. Food and Drug Administration, state agriculture officials, and local growers, is to improve growing and harvesting practices, to reduce contamination risks, and ultimately to enhance produce safety. This lecture will help explain the methods, lessons learned, and initial outcomes of this landmark multi-year investigation.

## [Register for Brown Bag Webinar](#)

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### Upcoming Brown Bags

- **October 23**, Itzchak E. Kornfeld, Professor, Hebrew University of Jerusalem, "You've Got it All Wrong About Water"
- **October 28**, Eran Feitelson, Professor, Hebrew University of Jerusalem "Will Desalination Resolve the Israeli-Arab Water Conflicts? And if not, why?" (*Special Time/Location*)
- **November 8**, Haley Paul, Policy Manager, Audubon Arizona, "The Economic Impact of Arizona's Rivers, Lakes, and Streams"
- **November 19**, Betsy Wilkening, Ladd Keith, Nicole Iroz-Elardo, UA/APW, and CAPLA, "Heat Mapping"
- **December 4**, Laura Condon, Assistant Professor, UA/HAS, "Effects of Groundwater Pumping"

## OTHER EVENTS

### Arizona Runs on Water - Water 101

**October 17, 2019**

**Time/Location:** 6:00 p.m. - 7:30 p.m., Maricopa County Cooperative Extension, 4341 E. Broadway Rd., Phoenix, AZ 85040 (Palo Verde Room)

- Where does your water come from and how is it used?
- How is it managed?
- What about agriculture and landscaping - what is their water story?



Learn about and discuss these issues at the Arizona Runs on Water Cooperative Extension Education Series.

Water 101 is the first in the series, which also includes separate evening sessions on Water for Agriculture and Water for Turf/Landscape. Light refreshments will be served and youth education activities with Arizona Project WET will be available in the adjacent room (6 or older, please.) Seating is limited; reserve your spot today.

### [Event Flyer](#)

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### HAS-LAW Colloquium Series - Special Master, General Stream Adjudication

**October 17, 2019**



**Speaker:** Susan Ward Harris, Special Master for the Gila River and Little Colorado River General Stream Adjudications in Arizona



**Time/Location:** 4:00 p.m. - 5:00 p.m., Haury Lector Hall, Rm. S107, ENR2, 1064 E. Lowell St., Tucson.

This discussion will focus on the intersection of the legal system and science in the development of water law, as well as on the actions that lawyers and scientific experts can take to meet legal thresholds for admissible scientific evidence and more effectively present scientific research in the courtroom.

## WRRC NEWS

### Santa Cruz River Renaissance Continues

The future of Tucson's Santa Cruz River looks bright, as two efforts to revive flow foretell. In the south, water is flowing on the Tohono O'odham Nation's San Xavier District and riparian vegetation is growing in response. For the past year, new streams lined with emerging trees and grasses have formed in the riverbed. A recent article by Tony Davis in the Arizona Daily Star even suggests that the mesquite bosque that once covered seven square miles of the river's floodplain may return. Because the Tohono O'odham's use of its water entitlements, cessation of local pumping by Tucson Water, and other factors, groundwater now supports year-round flow. Further downstream, Tucson Water's Santa Cruz Heritage Project has been releasing reclaimed water onto the river bed for several months and already new life can be found there. The checkered garter snake pictured above is an exciting example. The WRRC Brown Bag seminar next Tuesday, October 8th, will provide an update on the Heritage Project and its river revival.



**[Daily Star Articles - River and Bosque](#)**  
**[October 8th Brown Bag](#)**

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## Upcoming WRRRC Brown Bag Speaker - In the News

University of Arizona research on the recent E. coli contamination of Yuma-grown romaine lettuce is making the news! Both Phoenix area [Channel 12 News](#) and [KNAU](#) Arizona Public Radio featured stories about the work, which is being done in partnership with the U.S.

Food and Drug Administration, state agriculture officials, and local growers. UA professor and extension specialist, Dr. Channah Rock, is leading the multi-year study and she will be presenting an overview of the methods, lessons learned, and initial outcomes at the October 16, 2019 WRRRC Brown Bag seminar. Findings from the study will help us determine environmental influences on bacterial persistence and distribution in the Yuma agricultural region. The goal is to improve growing and harvesting practices and to prevent or mitigate contamination risks, and ultimately enhance produce safety.



### [October 16 Brown Bag UA News Article](#)

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## Project Harvest Completes Second Year of Citizen Science Rainwater Harvesting

As the 2019 monsoon came to an end on September 30, the University of Arizona's Project Harvest marked the end of a second successful year of working with citizens throughout Arizona to train them in rainwater harvesting, water analysis, and interpretation of data. This NSF-funded project, led by Dr. Monica Ramirez-Andreotta, engages students and faculty from several departments at the University of Arizona, as well as community health workers and volunteers in Tucson, Dewey-Humboldt, Globe/Miami, and Hayden-Winkelman. To date, nearly 2,000 rainwater samples have been collected and analyzed to generate a dataset that will inform rainwater harvesting guidelines for safe and sustainable food production.



### [More Information on Project Harvest](#)

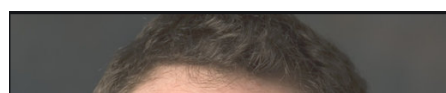
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## New Links Added to WRRRC News Article on Arizona Forward Event

Water was the theme at the Arizona Forward's Annual Environmental Excellence Awards gala held last month in Phoenix. The University of Arizona and several other entities were honored during the evening, but the one highlight of the event was a video celebrating Arizona Forward's 50<sup>th</sup> anniversary. The video features many of Arizona's leaders, including WRRRC Director Sharon B. Megdal. You can find links to the video, as well as to an AZ Big Media article, on our WRRRC news story [here](#).

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## Where are they now? Andrew Schwarz



Andrew Schwarz received his MS in Environmental Planning from the University of Arizona in 2007. From 2005-2007 Andrew was a Graduate Research Assistant at the WRRRC for Director Sharon B. Megdal, where he helped create the Conserve2Enhance™ concept and author two WRRRC reports that focused on the restoration of Arizona's riparian areas. Now based in Northern California, Andrew Schwarz is a supervising engineer for the Delta Stewardship Council, a state agency charged with achieving a more reliable water supply for California and protecting, restoring, and enhancing the Sacramento San Joaquin Delta ecosystem. Mr. Schwarz supervises an interdisciplinary team that manages implementation and policy development for the Delta Plan. With over 15 years of water resource management and engineering experience, Mr. Schwarz has worked on multiple state-level water resource planning projects and has also worked to support local water agency climate resiliency planning. Keep up the great work, Andrew!



To revisit Andrew's past work at the WRRRC, click the links below.

[Enhance Arizona's Environment](#)  
[Water Conservation](#)

## ANNOUNCEMENTS

- [ADWR Seeks Water Resources Specialist II - Phoenix](#)
- [October 10 Governor's Water Augmentation, Innovation and Conservation Council - Post-2025 AMAs Committee](#)
- [October 11 AZ Water 2020 Conference, Uniting Arizona's Water Professionals - Abstracts Due](#)
- [October 11-20 Tucson's TENWEST Impact Festival](#)
- [October 18 AWRA Spring Conference: Geospatial Water Technology Conference - Abstract Submissions Due](#)
- [October 31 Agnese Nelms Haury Fall 2019 Funding Opportunity - Applications Due](#)
- [November 1 Arizona Water Protection Fund Fiscal Year 2020 Grant Applications - Public Comment Period Ends](#)
- [November 1 Biennial Symposium on Managed Aquifer Recharge \(BSMAR17\) - Abstracts Due](#)
- [November 10-13 ASA-CSSA-SSSA International Annual Meeting - San Antonio](#)
- [December 2 AZ Agribusiness Roundtable - Save the Date](#)
- [January 3 Multi-State Salinity Coalition 2020 Student Scholarship Program - Applications Due](#)



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