

# WEEKLY WAVE



COLLEGE OF AGRICULTURE & LIFE SCIENCES  
COOPERATIVE EXTENSION  
**WATER RESOURCES  
RESEARCH CENTER**

**January 24, 2020 / Volume 8, Issue 3**

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: [GMA Webinar Series](#) / [Air Conditioning](#) / [APW](#) / [Books](#) / [RFP](#)



## WRRC Rated 'Outstanding' by USGS/NIWR

We are happy to report that the [UArizona WRRC](#), one of 54 US water institutes authorized in the federal Water Resources Research Act (WRRRA), received another outstanding rating in its most recent periodic review by the US Geological Survey and the National Institutes for Water Research. The water institute program is funded through the USGS under provisions of the WRRRA, which requires that the institutes be evaluated periodically to determine their eligibility for continued support. In 2019, the review panel found that the UArizona WRRC operates a comprehensive program that achieves success in all areas of the WRRRA. The WRRC was commended particularly for its information transfer program, the impact of its research on Arizona's water resources issues, and its success in involving and engaging a broad range of individuals and organizations.

## WRRC EVENTS

### The Groundwater Management Act Past and Future

**Tuesday, February 4, 2020**

**Speaker:** Carol Ward, Deputy Assistant Director, Water Planning & Permitting Division, Arizona Department of Water Resources; Natalie Mast, Program Manager, Management Plans, Arizona Department of Water Resources

**Time/Location:** 12:00 - 1:30 p.m., WRRC Sol Resnick Conference Room (350 N. Campbell Ave.)



Get Ready! A 2020 WRRC Conference Webinar Series is set to prime you for the upcoming WRRC Annual Conference, *Water at the Crossroad: The Next 40 Years*, to be held March 27, 2020, at the Black Canyon Conference Center in Phoenix, AZ. Three webinars, held every second Tuesday, February 4 to March 3, 2020, will serve up information to enrich your conference experience. Attend via the web or join us here at the WRRC to participate from our satellite webinar location in the Sol Resnick Conference Room. On Feb. 4, the webinar speakers from ADWR will discuss the Groundwater Management Act, past and future, as well as the 5th Management Plans for Arizona's Active Management Areas.

[Register for Webinar](#)

### Chocolate Fest 2020

**Feb. 13, 2020**

**Time/Location:** 3:00 - 5:30 p.m., WRRC Sol Resnick Conference Room (350 N. Campbell Ave.)

This year, we are adding to the Chocolate Fest tradition with a theme: Honoring the flowing Santa Cruz River. Over the past ten years there have been profound changes in the Santa Cruz River, and at the 16th Annual Chocolate Fest we will have a short program celebrating the changing river. We will also applaud the 2019 WRRC photo contest winners.



[Share the flier](#)

## OTHER EVENTS

### Arizona Runs on Water: A Cooperative Extension Education Series for Maricopa County



## Water Challenges Facing Agriculture in Maricopa County

January 30, 2020

**Speakers:** Dr. Ayman Mostafa, Extension Agent/Regional Spec., UA; Jim Boyle, Owner/operator, Boyle Dairy; DeWayne Justice, Owner/operator, Justice Brothers; Ron Rayner, Owner/operator, A Tumbling T Ranches

**Time/Location:** 6:00 - 7:30 p.m.  
Maricopa County Cooperative Extension  
4341 East Broadway Road  
Phoenix, Arizona 85040

Come learn about Maricopa County agriculture and its water challenges, how growers conserve water, and how they are preparing for the Drought Contingency Plan. This is the second in a series of lectures focusing on water in Maricopa County sponsored by Maricopa County Cooperative Extension and the WRRC, UArizona.

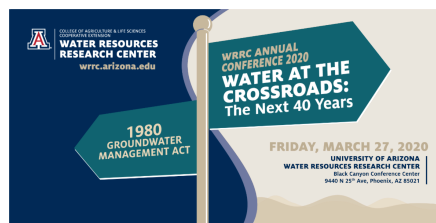
Check out the [flier](#)



## WRRC NEWS

### WRRC Conference and Webinar Explore the GMA

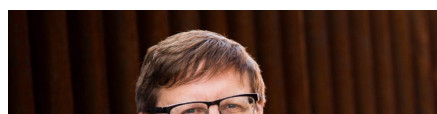
It's 2020 and Arizona is celebrating the forty-year anniversary of passage the Groundwater Management Act (GMA). Marking this milestone and exploring the legacy and future of Arizona's water management inspired the planning of our 2020 annual conference, *Water at the Crossroads: The Next 40 Years*, to be held on Friday, March 27, 2020 at the Black Canyon Conference Center, 9440 N 25th Ave, Phoenix, AZ. During a morning session, we are delighted to host a panel featuring five of our past Arizona Department of Water Resources Directors; Kathleen Ferris, Rita Maguire, Herb Guenther, Sandy Fabritz, and Michael Lacey. Spanning 30 years of agency leadership, these five will offer their thoughts about our water management in a facilitated discussion lead by panel moderator Dave White, Deputy Director, Julie Ann Wrigley Global Institute of Sustainability, ASU.



Groundwater management is a big topic, so in preparation for our conference, the first of our three-part [Webinar series](#) will focus on the Groundwater Management Act, past and future. Arizona Department of Water Resources Deputy Assistant Director Carol Ward and Program Manager Natalie Mast will present and then be available for on-line questions and discussion. This first webinar will be held at noon-1:30 pm on Tuesday, February 4th, with subsequent webinars to be held on Feb 18th to discuss the Governor's Water Augmentation, Innovation, and Conservation Council and on March 3rd with Central Arizona Project staff on a range of topics linked to the management of the Colorado River system. Join us for the webinars to refresh your knowledge of these important topics and to prime the pump for a great conference.

[Register for the Conference](#)  
[Register for the Feb. 4 Webinar](#)

### The Embedded Water in Energy and Air Conditioning



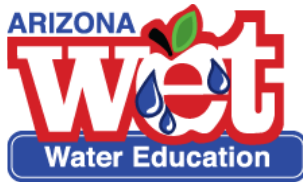
On Wednesday, January 22nd, Henry Johnstone, President of GLHN Architects and Engineers, Inc., addressed the dynamic relationship between water and energy and how it relates to air conditioning. In the first WRRC Brown Bag seminar of the new year, Mr. Johnstone began by describing a variety of power generating systems, how efficiently each type produces power, and how much water each type needs for power production. He demonstrated this information by using a Sankey diagram - a graphical tool to compare and contrast relative magnitudes of energy and water flow. While significant portions of Arizona's power generation are from coal and nuclear, natural gas and solar facilities are becoming more abundant. Mr. Johnstone continued with a look at embedded water on the use side of the equation. He noted that cooling towers are used on almost all large buildings and that these towers release a significant amount of water into the atmosphere. In urban centers, there are opportunities to create cooling districts where a central facility cools water, which is then distributed throughout the area to cool the buildings. The presentation also touched on policy and energy management changes to help reduce water consumption in this and other arid regions.



View the Video and the Presentation [Here](#)

---

## Artists and Scientists: Kids Can be Both!



Watercolor painting, poetry, and sketches are just some of the ways that students are demonstrating learning at the Santa Cruz River through the Pima County Natural Resources Department's Living River of Words program. Each year,

students work with local artists to transform their experiences at the river into art. Arizona Project WET's Americorps Water Educators are a part of the team that hosts student groups at the river. Water Educators help students look at the river through the eyes of a scientist, further enriching their art. Emillie Castrichini described the day: "It was such a fun experience for me! So awesome to get kids engaged with nature and art! I personally loved the bug station."



## [APW](#)

---

## Three New Books Are Worth a Look

The WRRC is pleased to call your attention to three new books written by friends and colleagues about water and related issues. Marie Pearthree, Deputy General Manager at the Central Arizona Water Conservation District, has written a book with the writer Michael McGuire chronicling how Tucson Water lost credibility and public trust, when in 1992 the utility introduced treated Central Arizona Project (CAP) water into its water delivery system; and how it subsequently rebuilt its reputation. Failure to control for the increased corrosivity of CAP water resulted in serious problems for customers, and it took a change in management culture to restore the confidence of the community. The author's scoured historical documents and interviewed participants to produce a definitive study of events and their implications. *Tucson Water Turnaround: Crisis to Success* will be published by the



American Water Works Association in February 2020. William and Rosemarie Alley have written a book, *The War on the EPA: America's Endangered Environmental Protections*, which will be released by Rowman & Littlefield, also in February. William, who, after a career at the US Geological Survey, serves as Director of Science and Technology for the National Ground Water Association, has published three books with his wife Rosemarie, a writer and editor. The latest book documents how protections intended to safeguard the environment and public health are being undermined and dismantled. Eric Kuhn's and John Fleck's new book, *Science Be Dammed: How Ignoring Inconvenient Science Drained the Colorado River*, addresses the over-allocation of the Colorado River. Kuhn, retired General Manager of the Colorado River Water Conservation District, and Fleck, Director of the University of New Mexico Water Resources Program, explain how clear evidence that the Colorado River would be unsustainably over-committed was ignored as the Colorado River Compact was being negotiated in the early 1920s. Scrupulously researched, the book raises a caution against suppressing inconvenient science as we plan for the future.

---

## RFP Issued for WRRR National Competitive Grants Program 104(g)

The US Geological Survey has released the RFP for the Water Resources Research Act Program FY 2020 National Competitive Grants Program (104g). Any investigator at an institution of higher learning in the United States is eligible to apply for a grant through a Water Research Institute or Center established under the Water Resources Act of 1984, as amended. The WRRR is the Water Resources Research Institute for the State of Arizona. Grants will support research on water problems and issues of a regional or interstate nature. Proposals may be for projects of 1 to 3 years in duration and may request up to \$250,000 in federal funds. Successful applicants must match each dollar of the federal grant with one dollar from non-federal sources. Proposals should be submitted by email to the WRRR no later than 5:00 PM MST, Thursday, February 27, 2020. Funds have not yet been appropriated for this program for FY 2020 and the Government's obligation under this program is contingent upon the availability of funds.



Contact WRRR Program Coordinator Michael Seronde by [email](#) or call 520-621-3795 with questions.

[More Information and RFP](#)

# ANNOUNCEMENTS

- [January 24: 2020 Southeast Arizona Citizens Forum \(IBWC\) - Application Forms Due](#)
- [January 24: 2020 UCOWR/NIWR Conference - Abstracts Due](#)
- [January 27: UA Environmental Science Colloquium Series - Dr. Alan Kolok](#)
- [January 27: PAG Watershed Meeting on WOTUS and WOAZ](#)
- [January 31: AWRA 2020 Topical Session - Proposals Due](#)
- [February 12: Water Conservation & Resource InfoShare Meeting - Arizona Water History Theme](#)
- [February 14: ADWR WMAP Groundwater Conservation Grant - Applications Due](#)
- [February 18: WaterReuse 2020 Symposium - Abstracts Due](#)
- [February 26 - 28: L&WS Climate Ready Water Management Summit - Registration Open](#)
- [March 12-13: Annual Law of the Colorado River Conference - Registration Open](#)
- [March 23-26: AWRA 2020 Spring Conference - Registration Open](#)
- [June 14 - 17: ACE20 - Registration Open](#)

[Visit Our Website](#)