

WEEKLY WAVE



COLLEGE OF AGRICULTURE & LIFE SCIENCES
COOPERATIVE EXTENSION

**WATER RESOURCES
RESEARCH CENTER**

June 12, 2020 / Volume 8, Issue 23

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

WRRC Office Update

Although the WRRC building will be closed to the public until further notice, our staff continue to work and engage as much as possible. You can reach us via email as listed on our [Directory](#). We wish you all the best - Stay safe and healthy!

UArizona Cooperative Extension [COVID-19 info page](#)
WRRC [COVID-19 Articles](#)

In this issue: [Conference](#) / [Groundwater Management](#) / [Ralph Churchill](#) / [APW](#) / [Summer Wave](#)



WRRC Releases Visual Guide to the Pinal Active Management Area

The WRRC is pleased to share our newly released report *Getting Down to Facts: A Visual Guide to Water in the Pinal Active Management Area*, a collection of information on water use and management in the Pinal Active Management Area (AMA). In partnership with the Babbitt Center for Land and Water Policy, this report was created as a reference resource for interested residents, decision makers, and other stakeholders by summarizing existing data, through graphics and concise text. This report, with its 40 customized figures and tables, uses maps and data visualizations to explain the interconnections of water demands and supplies with the hydrologic setting, jurisdictional boundaries, resource availability, institutional framework, and the roles of various governmental and non-governmental entities. In light of the critical water challenges faced by the Pinal AMA, the WRRC and Babbitt Center hope that the "just-the-facts" approach of this report will provide a solid foundation of knowledge to understand local water issues and to plan for the future.

View and download the report [here](#)
Contact: [Ashley Hullinger, Research Analyst](#)

WRRC EVENTS



Water at the Crossroads: The Next 40 Years

As we contemplate the 40th anniversary of the Groundwater Management Act, many throughout the state will be joining us virtually for in-depth discussions and presentations at the WRRC 2020 Annual conference next Thursday afternoon and Friday morning. Enjoy talks about such critical issues as water as a food safety issue, rural water planning, sustainable water practices, and climate implications for water. Hear perceptions from water managers, tribal representatives, Arizona legislators, past Arizona Department of Water Resources directors, among others. Interact through virtual Happy Hours and make your thoughts known through real-time audience polling. We hope you will join us!

Important: registration closes Monday, June 15

[Register Today!](#)

WRRC NEWS

Today We Celebrate 40 Years of Groundwater Management



Forty years ago today, on June 12, 1980, water managers in Arizona took a monumental step toward addressing severe groundwater overdraft in the State's most populous regions with the passage of the Groundwater Management Act (GMA). The GMA set in place a framework for managing groundwater resources and established the Arizona Department of Water Resources to administer its provisions. At the time, no other state came close to creating such a long-term planning structure to safeguard water-certainty for its residents. The GMA created a management structure we are still building upon today and a culture of statewide water discussion and collaboration that will carry us into the future. We, in the water world, are very grateful to those that helped nurture the GMA and bring about its passage. Forty years later, the WRRC joins in the celebration of the GMA with our virtual conference on June 18-19, *Water at the Crossroads: The Next 40 Years*. Governor Bruce Babbitt, an important leader and voice in the negotiation of the GMA 40 years ago, will provide the opening keynote address in both a reflective and forward-looking presentation. Kathy Ferris, who was a key member of the group that worked so hard to pass the Act, is speaking on a panel of past ADWR directors and is also participating in a conference Happy Hour. We are proud to support today's statewide conversation about water and to help honor this amazing moment in history when Arizona took a stand to actively manage its precious groundwater resources.

Join us by registering [here](#) by June 15!

Commemoration of Ralph Churchill

The WRRC staff commemorate the life and passing of our friend and volunteer social media coordinator, Ralph Churchill. We were very fortunate to have Ralph join the WRRC as a volunteer following a distinguished career and a rich history of volunteerism. After receiving a Bachelor's in chemical engineering from the University of Kentucky, and a Masters in civil engineering from the University of Houston, Ralph began his professional career with Shell Oil in Houston with subsequent moves to their research facility in Emeryville, CA and New Orleans, LA. He continued his education by earning Ph.D. in civil engineering, waste water management from the University of California, Berkeley. He subsequently worked in the oil field services industry with Petrolite Corporation, established and ran a consulting firm for 15 years, and eventually returned to Petrolite to serve as Senior Vice President. After retirement, Ralph and his wife Elizabeth moved to New Mexico and then to Tucson where he contributed by volunteering for a variety of organizations and pursued his interests in woodworking and enjoying the outdoors. In May 2018, he became a valued member of the WRRC team that plans and implements outreach through the Weekly Wave, Brown Bag Seminars, and other communication platforms such as Facebook, Twitter, and LinkedIn. Ralph passed away on April 18, 2020. He is greatly missed here, and all of us at the WRRC extend sincere condolences to his family and friends.



What Do You Think?



More importantly, how do you think? In our ever evolving and technologically complex world, it is essential for students to develop an ability to think deeply and broadly to be prepared for the future. An



estimated 85% of jobs that students will do in 2030 don't exist yet, according to a 2017 study by the

[Institute for the Future](#) . How can educators help students prepare for future uncertainties as well as seemingly endless possibilities? One answer is by implementing a framework for Systems Thinking in their class instruction.

To help educators support their students in thinking critically and maximize their understanding of the Arizona Science Standards, APW delivered a professional development academy last week. Teachers came together to explore and engage in a new framework for thinking, referred to as DSRP, by Cabrera Research out of Cornell University.

DSRP is an acronym for four simple structures that underlie our thought processes: making Distinctions, recognizing parts and wholes in Systems, understanding Relationships, and viewing things from multiple Perspectives. This simple, yet, powerful framework enables students to dive deeper into concepts and content, creating meaningful connections between subjects and topics. Many of the teachers were impressed by the simple instructional practice that was demonstrated. One educator said "I will definitely use this and I plan to approach my district about hosting a PD on this framework. I think it is very useful." Such strong support will not only deepen student thinking but could lead to technological breakthroughs in the future.

[Arizona Project WET](#)

The Summer Wave is Back on June 26th



This is the final issue of the Weekly Wave until this Fall, but don't worry, the Summer Wave will begin on a bi-weekly basis on June 26th. As of June, we have almost 3000 subscribers. We thank you for your continued interest in the WRRRC's many publications, programs, outreach efforts, and research projects, along with other water-related news and announcements.

ANNOUNCEMENTS



- [The Santa Cruz AMA Draft 4th Management Plan available for review and comment](#)
- [Pinal AMA Draft 4th Management Plan available for review and comment](#)
- [Department of Energy Water Security Grand Challenge](#)
- [June 15: Groundwater Protection Council 2020 Annual Forum, Sept. 27-30 - Abstracts Due](#)
- [June 15-16: 2020 EUCI Online Event - Green Infrastructure: Concepts, Planning, Implementation, and Maintenance](#)
- [June 15-19: Indigenous Co-Innovation in Food-Energy-Water Systems Workshop](#)
- [June 16: Arizona Water Protection Fund Commission NOTICE OF PUBLIC MEETING](#)
- [June 17: GRACast \(Groundwater Resources Association of California\) Webinar](#)
- [June 17: AWRA Making Good Decisions: Utilizing Decision-Making Science & Geospatial Data to Streamline Water Planning & Management Webinar](#)
- [June 17-July 8, Multiple Dates: UA Cooperative Extension - Water in the Native World Webinar Series](#)
- [June 30: Annual Water Resources Conference - Call for Abstracts](#)
- [July 8-10: P3 Water Summit](#)
- [July 10: 2020 NCSE 2021 Annual Conference - Proposals Due](#)
- [July 13-24: AZ Water 93rd Annual Conference](#)

- [July 20: 5th Management Plan Agricultural Subgroup Meeting](#)
- [July 28, 2020: 5MP Management Plan Municipal Subgroup Meeting](#)
- [Aug 13-14: Arizona Water Law 29th Annual Conference](#)
- [Oct. 7-9: BSMAR 17 Symposium](#)
- [October 14-15: 2020 Permanent Forum of Binational Waters - Save the Date](#)
- [November: AWRA 2020 Annual Water Resources Conference \(major changes due to extraordinary circumstances. We will be 'meeting' completely VIRTUALLY\)](#)
- [Jan 5-8, 2021: NCSE 2021 Annual Conference](#)
- [May 9-14, 2021: IWA World Water Congress & Exhibition](#)
- [June 13-16, 2021: ACE20 Future So Bright](#)

[Visit Our Website](#)