



#### October 13, 2017 / Volume 5, Issue 27

The <u>Water Resources Research Center</u> - a research and <u>Extension</u> unit of the <u>College of Agriculture and Life</u> <u>Sciences</u>

In this issue: WEFTEC / GWPC Forum / Wegner Lecture / MetroWeek / Photo Contest











Top left: Supervisor Thurman; Top middle: Supervisor Garrison; Top Right: DeShannan Young; Bottom left: Supervisor Smith; Bottom Right: The Verde Valley Water Festival Committee

**Yavapai County Gives Meaning** 

#### to the Word "Community"

As the rising sun illuminated the mist rolling across the lagoon, volunteers set up under the cottonwood trees of Dead Horse Ranch State Park for the 10th Verde Valley Water Festival. Some made coffee and set up breakfast, others hauled equipment from the Arizona Project Wet trailer to the stations, and still others unloaded boxes of giveaways, one bag per student. Looking like a multicolored swarm of ants sporting Festival shirts from all 10 years, they knew what they were doing.

The dedication and commitment of the Verde Valley Water Festival committee over the last 10 years, enabled 4,894 students to increase their knowledge about water resources. To sustain this event, the committee raises funds and maintains the budget, they communicate with teachers, distribute info packets, and coordinate involvement. They train high school students to facilitate lessons, they stuff bags that contain aerators, toilet tablets, rain gauges etc., and they provide volunteers with t-shirts and all the food they can eat. They fully deserve their 10 years of excellence award!

At the festivals, community facilitators engage students through inquiry and exploration. More than 600 adults have contributed over 3,600 hours, a value of \$79,272 (using the Independent Sector hourly rate) throughout these last 10 years. This year, Yavapai County Supervisors were in the trenches! Students clamoring to interact with the watershed models were elbow to elbow with Supervisors Thurman and Garrison, and students hauling water may have gotten Supervisor Smith's feet wet as he challenged them to work toward efficiency. The Yavapai County community is the driving and sustaining force that makes these events such a success!

#### WRRC EVENTS

# WRRC Brown Bag - Yuma Agriculture and the Yuma Center of Excellence for Desert Agriculture

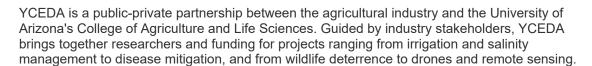
October 17, 2017

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

**Speaker:** Paul Brierley, Executive Director, Yuma Center of Excellence for Desert Agriculture

Yuma County is in the top 0.5% of U.S. counties in agricultural crop sales, producing nearly 90% of North America's winter leafy greens, but it is always striving to

overcome challenges and be even more productive. What makes it such a top producer? And how does the Yuma Center of Excellence for Desert Agriculture (YCEDA) support this amazing industry?





If you can't make it to the seminar on October 17, join us online **here**.





#### **Department Commissioner**

October 25, 2017

Time/Location: 3:00 p.m. - 4:00 p.m. / ENR2 S107

(1064 E. Lowell St.)

Speaker: Lisa Atkins, State Land Commissioner

#### Please note special time and location.

The Arizona State Land Department manages approximately 9.2 million acres of State Trust lands within Arizona. These lands were granted to the State under the provisions of the federal Enabling Act that provided for Arizona's statehood in 1912. These lands are held in trust and managed for the sole purpose of

generating revenues for the 13 State Trust land beneficiaries, the largest of which is Arizona's K-12 education.

Co-sponsored by School of Natural Resources and the Environment

# WRRC Brown Bag - YMIDD/CAGRD Pilot Rotational Fallowing Program, Good for Business, Good Water Management



#### **November 14, 2017**

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

#### Speakers:

Perri Benemelis, Manager, Water Supply Program, Central Arizona Groundwater Replenishment District (CAGRD)

Andrew Craddock, Analyst, Water Supply Program, Central Arizona Groundwater Replenishment District

New development in central Arizona must comply with Assured Water Supply Program requirements that are among the most stringent in the country. Membership in the CAGRD provides one mechanism for meeting this requirement because CAGRD's Water Supply Program takes responsibility for acquiring water supplies to meet its members' replenishment obligations. The Yuma Mesa Pilot Rotational Fallowing project was a successful "proof of concept" project for CAGRD. It worked with the Yuma Mesa Irrigation and Drainage District and the regulatory agencies to develop the program criteria for participation and to quantify water savings. The program, which began in 2014 and ended in 2016, used current year local weather station data to determine the forgone consumptive crop water use that was saved in Lake Mead. The project was implemented with no reported adverse economic effects.



If you can't make it to the seminar on November 14, join us online here.





## Check out all of our upcoming events and videos of previous events on our

website

#### **OTHER EVENTS**

## Tucson Meet Yourself - A Folklife Festival

TUCSON meet YOURSELF

a folklife festival

October 13-15, 2017

**Time/Location:** 11:00 a.m. - 10:00 p.m.(Oct. 13 & 14);

11:00 a.m. - 6:00 p.m. (Oct. 15) / El Presidio Park (160 W Alameda St,)

Tucson Meet Yourself is an annual celebration of the living traditional arts of Southern Arizona's and Northern Mexico's diverse ethnic and folk communities. Each October, the three-day event features hundreds of artisans, home cooks, dancers, musicians, and special exhibits that celebrate and honor beauty in all its diverse, informal, and everyday forms. This year the WRRC is sharing an exhibit with BKW Farms on the Festival grounds.

Stop by the BKW Farms/WRRC tent, located near the library, to talk about water and see what we are working on.

SWES Colloquium - Evidence-based decision making: Science-policy dialogues of the Udall Center for Studies in Public Policy



October 16, 2017

Time/Location: 3:00 p.m. - 4:00 p.m. / Marley Rm. 230 (1145 E. 4th St.)

Speaker: Christopher Scott, Director, Udall Center for Studies in Public Policy

This talk draws on the Udall Center's work in a range of contexts including water management in Arizona and the Southwest, Tribal governance with Native Nations, and adaptive management under conditions of water scarcity and climate variability and change in the Americas and South Asia. It illustrates the potentials, breakthroughs, and pitfalls inherent in policy engagement beyond the academy walls. The talk concludes by distilling key lessons, particularly as applied to several potential new initiatives the Udall Center will emphasize in the coming years.

NGWA Webinar - Groundwater Quality Management and Governance at the State Level

October 19, 2017



Time: 9:00 a.m. - 9:30 a.m.

**Speaker:** Jacob Petersen-Perlman, Research Analyst, University of Arizona/WRRC **Presentation limited to NGWA members.** 

During this half-hour online presentation, hear the results of a survey funded by the Ground Water Research & Education Foundation that was designed to better understand groundwater governance strategies and practices related to water quality in the United States.

#### Join Webinar

#### **NEWS**

### WRRC Associate Director Delivers Invited Presentation at WEFTEC

On October 2, WRRC Associate Director Jean McLain traveled to Chicago to deliver an invited talk at the Water Environment Federation Technical Conference (WEFTEC). WEFTEC is recognized as the world's largest annual water quality technical conference and exhibition. Dr. McLain's presentation led a session on "Public Health in the Headlines" and discussed concerns related to emerging



contaminants, antibiotic resistance, and recycled wastewater. In short, the talk concluded that hundreds of research studies worldwide have not connected the use of recycled water to the development of environmental antibiotic resistance, and highlighted areas where additional research is needed to ensure safe and sustainable water supplies.

#### 2017 WEFTEC Conference

## WRRC at the Ground Water Protection Council's Annual Forum

WRRC Research Analyst Jacob Petersen-Perlman traveled to Boston, MA to present at the Ground Water Protection Council's Annual Forum, held September 27-29. He presented on a recent report co-authored by WRRC Director Sharon Megdal, former WRRC Graduate



Research Assistant Ethan Vimont, Udall Center for Studies in Public Policy's Andrea Gerlak, and Petersen-Perlman. The report was entitled "State-Level Groundwater Governance and Management in the U.S.: Summary of Survey Results of Groundwater Quality Strategies and Practices." Work on the survey and report was funded by a grant from the Ground Water Research and Education Foundation. The goal of the project was to identify on-the-ground practices of groundwater governance that may help to improve and enhance management of the nation's water supplies, particularly within the realm of groundwater quality.

#### **More Information**

Adaptive Management and Water: The Importance of Science to Public Policy and Water Management - WRRC Brown Bag video posted



At this week's WRRC Brown Bag Seminar, David Wegner, Senior Scientific Consultant for Jacobs Engineering, discussed the use of science by the federal government and how the adaptive management concept has been



applied to water management and projects. Starting with a historical overview, Mr. Wegner explained that 26 federal agencies mention "water" in their mission, which demonstrates the broad interest in water, but also explains how "turf" protection and silo-ed water policy thinking evolved. Adaptive management is an iterative process whereby system monitoring and assessment are used to refine and change policy decisions. The adaptive management concept originated in the early 1900's, but did not become a structured process until the 1980's. It is an especially useful tool when problems have no clear-cut definition or technical answers and therefore require continual learning to work toward solutions. Although adaptive management has many benefits, it also has drawbacks such as delaying action by initiating long-term studies instead of moving forward with decision making. Mr. Wegner provided examples from the Missouri River, the Middle Rio Grande River, and the Colorado River to illustrate adaptive management applications.

#### **View Presentation**

#### **MetroWeek - Minute 323**

Minute 323, the new binational water sharing agreement between the US and Mexico, ensures a more secure water future for Colorado River water users across the basin and supports continued restoration of the Colorado River Delta. WRRC Director Sharon B. Megdal and Chief Information



Officer for Tucson Water, Fernando Molina, joined host Vanessa Barchfield to discuss impacts of this agreement.

In the video link provided below, the interview beings at 16:56.

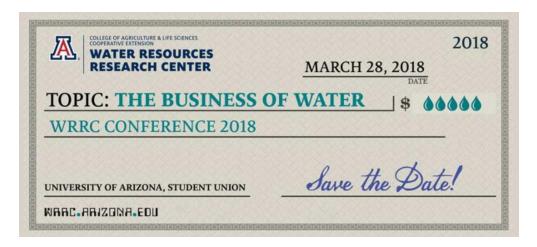
#### **Watch Interview**

#### Photo Contest 2017 - Arizona Water

We're taking a very simple approach to our photo contest this year. Just show us Arizona water. Yup, that's as specific as we're going to get. Use your creativity and technical ability to express the many ways water transforms our state and the many ways our state transforms water. Capture anything from people and nature to business and agriculture. It's completely up to you. Just make sure your picture relates to water and it's in Arizona!

#### Contest Application

#### **ANNOUNCEMENTS**



- October 17 Arizona Women's EnviroLink Fall Luncheon
- October 31 Applications Due Heritage Fund Grants
- November 1 Last Call for Abstracts BSMAR16
- November 15-17 2017 NWRA Annual Conference
- November 16 Yuma Center of Excellence 2017 Research Symposium
- March 25-28 Sustainable Water Management Conference
- WRA Job Posting Sr. Water Policy Advisor

#### WATER RESOURCES RESEARCH CENTER

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