

WEEKLY WAVE



COLLEGE OF AGRICULTURE & LIFE SCIENCES
COOPERATIVE EXTENSION

**WATER RESOURCES
RESEARCH CENTER**

April 21, 2017 / Volume 5, Issue 16

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

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WRRC Celebrates Our 2017 Graduates!

The month of May will be bittersweet for the WRRC, as we celebrate the graduation of 9 graduate and undergraduate students, but also must bid them farewell as they move forward with post-graduation plans. Throughout the year, students are vital to the WRRC as they contribute to all of our work - our students lead projects focused on water policy, perform laboratory research, aid in the

teachings of Arizona Project WET, and assist in the drafting of our outreach materials. Please join us in extending congratulations and best wishes to Bachelors Degree graduates Emily Gudvangen, Patrick Wilkening, Marcel Chamberlain, and Elspeth Edgar; and Master of Science graduates Alba Ruby Ramos , Bailey Kennett, Ethan Vimont, Craig Nelson, and Joaquin Amaro. Well done!

WRRC EVENTS

WRRC Brown Bag - Plugging into WEST: Researchers, Industry, and Arizonans Benefit by Connecting with the UA Water and Energy Sustainable Technology (WEST) Center

April 26, 2017

Time/Location:

12:00 p.m. - 1:30 p.m. / WRRC Sol Resnick Conference Rm. (350 N. Campbell Ave.)



If you can't make it to the live seminar on April 26th, join us online [here](#) .

Speaker:

Ian Pepper, *Co-Director, WEST Center*

In 2016 WEST became the most recently established "Institutional-level" Center within the office of Research, Discovery, and Innovation (RDI) at the University of Arizona. Such Centers are initiated to provide unique infrastructure or technological capabilities to the UA personnel on campus. The two Co-directors, Ian Pepper and Shane Snyder, report to the Senior Vice President for Research within RDI. WEST focuses on the water/energy nexus and has unique features supporting innovative research and technology that can make research proposals more competitive. In addition, WEST partners with companies in the private sector and public utilities, and focuses on water and wastewater treatment, providing opportunities to pursue real-world problems.

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



OTHER EVENTS

Lecture - Decision Support for Uncertain Climate Futures: The Confidence Trap

April 27, 2017



Time/Location:

12:00 p.m. - 1:00 p.m./ ENR2 Building, Room S107
(1064 E. Lowell St., Tucson)

**Speaker:**

Jeff Arnold, *Lead Climate Scientist, U.S. Army Corps of Engineers*

For more than 200 years, the U.S. Army Corps of Engineers (USACE) has had primary responsibility for water resource operations on most major U.S. river systems. Managing the impacts of climate variability and change is a significant challenge; projections of specific threats and impacts to regional scale hydrology are still uncertain enough that explicit guidance is needed on their interpretation and use. This talk will describe new approaches to helping decision makers understand uncertainties in managing real river systems, aiming to avoid communication issues about confidence while respecting uncertainties.

[More](#)

Colloquium - Managing the Colorado River in Interesting Times: Overallocation, Drought and Climate Change



April 27, 2017

Time/Location:

4:00 p.m./ ENR2 Building, Room 225 (1064 E. Lowell St., Tucson)

Speakers:

Ted Cooke *General Manager, Central Arizona Project*

Marie Pearthree, P.E. *Former Deputy General Manager, Central Arizona Project*

This is a critical time for the State of Arizona and key sectors of its economy, given the impacts of the 17 year drought on the Colorado River and historic overallocation of its supplies characterized as a "structural deficit." This colloquium will present the history of Colorado River management from 1922 to the present, focusing on the evolution of decision making on the river over time, the impacts of changing climatic and hydrologic conditions on water supplies, and current negotiations among the seven Basin States and Mexico.

NEWS

Looming Water Shortage for Central Arizona Agriculture Discussed

Despite experiencing a wet winter, Arizona should continue to plan for dry days, according to Katosha Nakai of CAP, who opened the panel, "Planning for Central Arizona's Looming Agricultural Water Shortage," at the WRRC conference, *Irrigated Agriculture in Arizona: A Fresh Perspective* on Tuesday, March 28. A good winter will not erase the structural deficit that threatens Lake Mead's water level. This issue focused the panel discussion on dealing with reduced Colorado River water supplies. If lake levels fall below 1075 feet, groundwater recharge and agriculture would feel the main impacts. Jason Hauter from the Gila



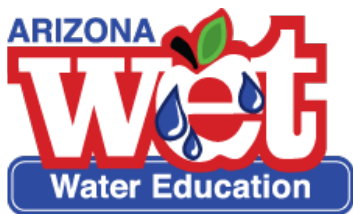
Photo credit- Brent Murphree

River Indian Community honed in on the tribe's problem of fully utilizing their water allocation while facing high and rising costs for delivery. Brian Betcher described how the Maricopa-Stanfield Irrigation and Drainage District, for which he serves as General Manager, would continue to provide water for its growers, and Central Arizona farmer Dan Thelander presented four ways farmers can prepare for water shortages, weighing their pros and cons. Both the Hauter and Betcher presentations are posted on the WRRC's website [here](#).

Thelander's presentation was captured in a story he wrote for The Voice, the Arizona Farm Bureau's blog. Read the full story, which was posted by the Farm Bureau's Julie Murphree on April 4, 2017, by clicking [here](#).

[More](#)

Teachers Learn Groundwater Stewardship by Recharging the Rain!



Imagine a Tucson where schools collect the water they need from the sky and students help neighbors do the same at home, allowing groundwater to recharge



the aquifer and making our landscape more resilient to cycles of drought and flood. Arizona Project WET and Watershed Management Group (WMG) are working together on Recharge the Rain, a new initiative funded by the National Oceanic and Atmospheric Administration, to make this dream a reality.

This spring, 16 inspiring, motivated teachers began a three year journey towards becoming rainwater harvesting ambassadors. Though a tour of [WMG's Living Lab](#) and professional development, they gained foundational knowledge of local weather patterns and the fundamentals of runoff. Moving forward, they will participate in work days to install rainwater harvesting features at their schools and practice site surveys in surrounding neighborhoods.

Find out more about APW's direct community outreach on our [Facebook page](#) .

CAP Award for Outstanding Water Research



Central Arizona Project is accepting submissions for its CAP Award for Water Research through June 1, 2017. This opportunity is available to graduate and undergraduate students attending any college or university in the State of Arizona. The goals of the award are to raise public awareness of water issues in our state, encourage and support water research, and raise public awareness of CAP. In addition to the first and second place prizes, CAP will also award each recipient with an additional \$250 scholarship to the AHS annual symposium in September, 2017.

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Transforming Wastewater to Drinking Water, April 17th WRRC Brown Bag

At the April 17, 2017 WRRC Brown Bag, Adam Hutchinson, Recharge Planning Manager for the Orange



County Water District (OCWD), presented the fascinating story of collaboration and historical circumstance that led to the world's largest indirect potable reuse project in Orange County, California. Mr. Hutchinson offered first-hand knowledge about the hydrology, water quality, and water management elements contributing to OCWD's successful joint venture with Orange County Sanitation District. This project, called the Groundwater Replenishment System, currently generates 100 million gallons per day of advanced purified water that is recharged into the Orange County groundwater basin to supplement potable water supplies. Mr. Hutchinson's talk describes the evolution from the 1970's Water 21 plant, recharging relatively minor amounts of water to create a subsurface pressure barrier holding off encroaching seawater, to a full-scale treatment, recharge and reuse system spanning the entire basin. The talk audio and slides are [posted on the WRRC website](#).



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2017 Annual Banquet for Women in Science and Engineering Held on UA Campus

On April 13, 2017, the Annual Banquet for Women in Science and Engineering (WISE) was held at the University of Arizona Student Union. WISE, established at the UA in 1976, aims to increase interest and diversity in the fields of social and natural science, technology, engineering, mathematics, and medicine (STEMM) by offering a variety of outreach programs, scholarships, and student engagement opportunities. WRRC Associate Director Jean McLain serves on the WISE Advisory Board, made up of Southern Arizona professionals engaged in diversity and STEMM programs.



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ANNOUNCEMENTS

- [Santa Cruz River Research Days 2017 Proceedings - now available!](#)
- [AWRA Annual Conference Abstracts due May 8, 2017](#)
- [Agribusiness & Water Council of Arizona's Annual Meeting & Water Conference - Trumping Arizona Ag - May 19, 2017](#)
- [WaterReuse Arizona 2017 Offers Scholarships](#)
- [UCOWR/NIWR Conference - June 13-15, 2017, Ft. Collins, CO - Preliminary Program now Posted](#)
- [Save the Date: AWRA Spring Specialty Conference - Spatial Analysis of Watersheds: Ecological, Hydrological, and Societal Responses-April 22-25, 2018](#)

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