

# WEEKLY WAVE



COLLEGE OF AGRICULTURE & LIFE SCIENCES  
COOPERATIVE EXTENSION

**WATER RESOURCES  
RESEARCH CENTER**

**January 5, 2018 / Volume 6, Issue 1**

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

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## 2017 WRRC PHOTO CONTEST WINNERS

We are pleased to announce the winners of the 2017 Water Resources Research Center Photo Contest. This year we gave photographers only two criteria - that photos be water-related and that they be taken in Arizona. We received an array of stunning images that took our request to heart. People, nature, economy, and other topics were covered by the many photographers who submitted their images.

We would like to sincerely thank all of the participants. We had entries from throughout the state and even a few from out of state. We were very impressed by the quality and variety of photographs entered. This made choosing the winners a daunting yet exciting task.

The winning photographs will be featured in the Arizona Water Resource newsletter and at the 2018 WRRC Annual Conference on March 28. The winners will also be recognized at the 2018 Chocolate Fest on February 16.

[Check out the winning photos and more here](#)

# WRRC EVENTS

## **WRRC Brown Bag - Agriculture in Arizona's Economy: The Role of Modeling and Implications for Water Management**

**January 17, 2018**

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



**Speaker:** George Frisvold, Professor and  
Extension Specialist, Department of Agricultural and Resource Economics, University of  
Arizona

This presentation will highlight results of an input-output (I-O) modeling exercise measuring the contribution of Arizona's agribusiness system to the state's economy. The agribusiness system includes crop and livestock industries as well as industries that supply and support on-farm production, food and fiber processing industries, and companies that market and distribute agricultural products. Through a combination of direct and multiplier effects, the agribusiness system contributed \$23.3 billion in sales and more than 138,000 jobs to Arizona's economy.



If you can't make it to the seminar on January 17, join us [here](#).

## WRRC Brown Bag - New Techniques for Mapping planted versus fallowed croplands using MODIS data

**January 23, 2018**

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

**Speaker:** Cindy Wallace, Research Geographer, USGS Western Geographic Science Center



An important metric to monitor for optimizing water use in agricultural areas is the amount of cropland left fallowed, or unplanted. Fallowed croplands are difficult to model because they have many expressions; for example, they can be managed and remain free of vegetation or be abandoned and become weedy if the climate for that season permits. USGS Researchers remote imaging to develop an algorithm that can routinely map cropland status (planted or fallowed) with over 75% user's and producer's accuracies.



If you can't make it to the seminar on January 23, join us [here](#).

## WRRC Brown Bag - Scottsdale Water Campus: 20 years of Sustainable Water Management

**January 25, 2018**

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

**Speaker:** Brian K. Biesemeyer, Scottsdale Water Director



The Scottsdale Water Campus is a unique and technologically advanced facility that is the center of Scottsdale Water's Vision: Water Sustainability through Stewardship, Innovation and People. The campus started operations in 1998 and contains a water reclamation facility, an advanced water treatment facility, and a surface water treatment facility along with more than 60 vadose zone wells and a water quality laboratory. Currently the facility is able to treat 20 million gallons a day of sewage through its reclamation facility and advanced water treatment facility for direct aquifer recharge and golf course irrigation. Additionally, the surface water treatment facility is capable of treating up to 70 million gallons a day of Central Arizona Project (Colorado River) water for drinking water purposes.



If you can't make it to the seminar on January 25, join us [here](#).

## Valerisa Joe Receives Prestigious Graduate Fellowship

Valerisa Joe, a Ph.D. student co-supervised by WRRCA Associate Director Jean McLain, has been selected to receive the 2017 Dr. Maria Teresa Velez-Marshall Foundation Graduate Fellowship. The fellowship will support Valerisa's efforts to complete her doctoral dissertation, which is focused on identifying novel methods for assessment of irrigation water quality and facilitating food safety training for Arizona Native Farmers.



The Graduate Fellowship was created to honor the efforts of Maria Teresa Velez, who passed away in 2016. Dr. Velez had a focused, dedicated mission to open up historically inaccessible spaces for underrepresented students, particularly at the graduate-level. As associate dean of the University of Arizona's Graduate College, Velez envisioned that, with graduate degrees in hand, such students would be best equipped to positively impact communities - whether they be social, economic or scientific - throughout Arizona and across the nation.

Our heartiest congratulations to Valerisa on this well-deserved award.

### [Dr. Velez Fellowship](#)

## USGS Hydrology Reports Available

The U.S. Geological Survey's Arizona Water Science Center provides resource managers and the public with critical water resource information for Arizona and the Southwest. Two recent publications help explain the hydrology and water quality at sites located at both ends of the State. Scientific Investigations [Map 3385](#) shows the concentration for volatile organic compounds monitored between 2002 and 2017 at the Tucson International Airport Area Superfund Site. This map provides both the current status as well as the trends for 1,4-dioxane groundwater contamination in the area. Open-File Report [2017-1127](#) describes the hydrology and provides groundwater, surface-water, and water-chemistry data for groundwater and springs associated with the Navajo aquifer located in northeastern Arizona. This aquifer is of concern because it is the primary source for groundwater in the 5,400-square-mile Black Mesa area.



## The Arizona Project WET Team is Looking Forward to 2018!

APW develops water stewardship and STEM literacy by providing teacher professional development that evolves instructional practice and deepens content





knowledge, direct student outreach that delivers or extends classroom learning, and community



engagement. As a part of the University of Arizona Cooperative Extension and the WRRC, we bring the best that science and education researchers have to offer into the state for the benefit of teachers and students. Our work with teachers encourages them to innovate in their classrooms, using project-based learning and critical and creative thinking skills, while exploring water-related science as a motivating context for their students. Students grapple with some of our state's most important environmental problems when they engage in APW programs.

As educators, professional development providers, and passionate water stewards, we look forward to another year delivering water education that inspires the next generation of environmental professionals and informed citizens. We wish you a happy and water wise New Year!

### [Learn More About APW](#)

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## Arizona Water Quality Specialist Channah Rock Appears on Bill Nye Saves the World

As part of the [Arizona Pure Water Brew Challenge](#), Dr. Channah Rock, State of Arizona Cooperative Extension Water Quality Specialist, is appearing on Bill Nye Saves the World (Season 2, Part 2). The Pure Water Brew Challenge focused on turning wastewater into pure water and then pure water into beer. Channah was showcased on Season 2, Show 2, describing the importance of water sustainability (and beer!) in saving the world.



### [Watch Bill Nye Saves the World](#)

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## Student Scholarships Available for Yuma Urban Waterfronts Conference

The 33rd Annual International Conference on Urban Waterfront Planning, Development and Culture will be held in Yuma, Arizona on January 26-27, 2018. This conference will feature experts in Colorado River water management and will cover challenges faced by waterfront development, including sea level rise and hurricanes.



Benefactors have made a limited number of scholarships available to undergraduate and master's students. This would be an excellent opportunity for students to learn about water sustainability and development. To apply, send an email to [Cathy Douglas](#) before January 12th. In the email, include your name, the school you are attending, and a statement (in 300 words or less) on why you are interested in attending the conference. More information on this opportunity can be found on the conference website.

### [Conference Info](#)

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## IBWC Seeks Citizen Volunteers - Apply



by January 12

The Southeast Arizona Citizens Forum (SEAZCF) board will be starting a new term on March 15, 2018 with new members. The SEAZCF is a board established by the U.S. Section of the International Boundary and Water Commission (IBWC) to encourage dialogue on IBWC projects and related issues in Pima, Santa Cruz, and Cochise Counties. The IBWC is the entity responsible for implementing the boundary and water treaties between the United States and Mexico. SEAZCF meetings, which are open to the public, enable two-way flow of information between the IBWC and the community.



To become a SEAZCF board member for the coming term, apply online at the link below or contact Lori Kuczanski, Public Affairs Officer, at (915) 832-4106 or by [email](#) before January 12, 2018. Board members serve for a two-year term and take part in the approximately four public meeting per year held in different locations in the three counties. Board members are unpaid volunteers and may serve multiple terms if they reapply. The IBWC will select board members considering the need for participation by diverse interests.

### [Application Form](#)

## Arizona Private Well Assessment Opportunity

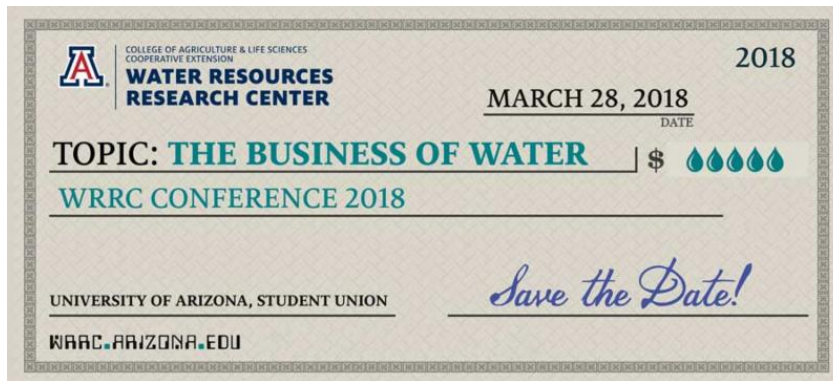
Rural Community Assistance Corporation, a non-profit organization with funding from the U.S. Environmental Protection Agency (EPA), is offering private well owners free well assessments and water quality testing for nitrate. Between January 15 and 18 they will be in the Tucson area offering well assessments and nitrate testing in Pima, Pinal, and Cochise Counties. Private well owners are encouraged to apply for this free service online at the link below. For more information about the Individual Well Program, contact Thi Pham, RDS at (916) 447-2854, ext. 1038 or [tpham@rcac.org](mailto:tpham@rcac.org).



[Apply.](#)

## ANNOUNCEMENTS

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- [January 9 AWRA Spring GIS Conference - Call for Abstracts](#)
- [January 10 RFCD Brown Bag - Estimating Stormwater Harvesting Volumes](#)
- [January 12 USDOJ Annual Water Management Workshop - Registration Closes](#)
- [January 15 Arizona Humanities - Request for Water Scholars](#)
- [January 22 UCOWR/NIWR Annual Water Resources Conference - Call for Abstracts](#)
- [January 26-27 Urban Waterfronts Conference](#)
- [February 2 L'Oréal Women in Science Grants on Trialect - Applications Due](#)
- [February 5 Borlaug CAST Communication Award - Call for Nominations](#)
- [February 6 - March 1 UA Cooperative Extension - Spring Smartscape Classes](#)
- [February 8-9 Western Water Law Conference](#)
- [February 14 U.S. Borlaug Summer Institute on Global Food Security - Applications Due](#)
- [February 22-23 Land and Water Summit](#)
- [February 26-27 NGWA Groundwater Policy and Management in the Southwest](#)
- [March 6 BSMAR16 - Registration Now Open](#)
- [March 25-28 AWWA Sustainable Water Management Conference](#)
- [April 9 El Día del Agua y la Atmósfera - Save the Date](#)
- [April 24-26 IFC Flow 2018 - Registration Open](#)

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