

# SUMMER WAVE



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

**June 14, 2019 / Volume 7, 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

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## UA Receives Honors at National Water Resource Conference

University of Arizona was well represented at the Universities Council on Water Resources (UCOWR) and The National Institutes for Water Resources (NIWR) annual conference held on June 11-13. At the conference, University of Arizona Professor Karletta Chief ( Diné ), received the

"Friends of UCOWR" award for her outstanding contributions to the organization. The award was presented by WRRRC Director Sharon B. Megdal, who was also honored for her service on the UCOWR Board of Directors, on which she served as Past President during the past year. In addition, Dr. Megdal presented on "Colorado River Drought Contingency Planning and What it Means for Municipal, Tribal, and Agricultural Water Users in Arizona" during an "Urban Water Conservation and Water Security" session, and she was also a panelist in a session entitled "Connecting Land and Water: Research in the Colorado River Basin". This session, co-organized by WRRRC Research Analyst Ashley Hullinger and the Babbitt Center for Land and Water Policy, explored the need for coordinating land and water use decisions in order to meet future water needs of communities, economies, and environments in the rapidly urbanizing American West. In addition, UA Udall Center Director Christopher Scott, presented on "Evidence-based Decision Making in a Post-truth World" as part of a climate change panel.

### [UCOWR/NIWR 2019 Annual Conference Program](#)

## WRRRC EVENTS

**SAVE  
— THE —  
DATE**

**MARCH 27  
2020**

**WRRRC  
CONFERENCE**

**WATER AT THE  
CROSSROADS:  
The Next 40 Years**

## OTHER EVENTS

### **Dedication Ceremony for the Santa Cruz River Heritage Project**

**Date / Time: Monday, June 24, at 4:30 PM**  
**Location: 1580 S Santa Cruz Lane, Tucson, AZ 85713**  
**Speakers: Tucson Mayor Jonathan Rothschild and Ward 1 Councilor Regina Romero**

The Santa Cruz River Heritage Project will introduce a ribbon of flowing water to the Santa Cruz River south of downtown; offering bike riders, joggers, walkers, and equestrians along the downtown section of The Loop trail improved river conditions and flowing water to admire. This project will complement historical and cultural projects in the area, and support the return of native plants and animals.



[Attend the Ceremony.](#)

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## Webinar: Toward Effective Actionable Science: Southwest Climate Adaptation Science Center Stakeholder Needs Assessment Results

Dr. Gregg Garfin, SWCASC University Director  
Thursday, June 20th, 12- 1 PDT



In 2018, to help fulfill the Southwest Climate Adaptation Science Center's (SWCASC) mission of developing useful science products for natural resource managers, researchers conducted a rapid assessment of science and information needs of Southwest natural resource managers in Arizona, California, Nevada, and Utah. Listeners will learn the key findings from this assessment, and will have abundant time for discussion and questions.

[Flyer](#)  
[Register for the Webinar](#)

## WRRC NEWS

### Jean McLain Co-Organizes National and International Workshops

WRRC Research Scientist Jean McLain has been traveling extensively over the past few weeks, co-organizing workshops aimed at assessing the human health risk of environmental antibiotic resistance. The first workshop was held at the UNC Water Microbiology Conference in Chapel Hill, NC on May 13, while a second workshop took place on June 12 at the Environmental Dimensions for Antibiotic Resistance Conference in Hong Kong. In Hong Kong, Jean was joined by Dr. Shane Burgess, Dean of the UA College of Agriculture and Life Sciences, and Dr. Kevin Fitzsimmons, Director of CALS International Programs. Both workshops, led by researchers from Virginia Tech University and Arizona State University, are focused on environmental antibiotic resistance - which is a natural phenomenon present in soil and water - and is far less understood than clinical antibiotic resistance. These workshops aim to establish methods for the study of natural resistance and to 'separate' natural background resistance from resistance caused by human use of antibiotics.



### University of Arizona Researchers Participate in Border Solutions Alliance

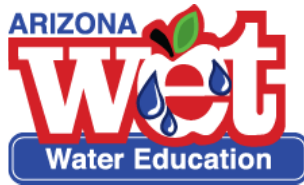
Water, like human health and natural disasters, knows no political boundaries. The Border Solutions Alliance, a collaboration among UA and four other universities, aims to bring together researchers from the United States and Mexico to develop multidisciplinary proposals to address critical issues that impact both nations and can benefit from cross-border coordination. Sponsored by the National Science Foundation, workshops took place June 10-12 in El Paso, TX and Las Cruces, NM. UA researchers Jacob Petersen-Perlman of the WRRC, and Robert Varady and Adriana Zuniga-Teran of the Udall Center for Studies in Public Policy took part in a one-day session in Las Cruces focusing on multidisciplinary water research to address the needs of the US-Mexico border. Kacey Ernst of the College of Public Health and Arlie Adkins of the College of Architecture, Planning and Landscape Architecture also participated in the El Paso workshop.



## Border Solutions Alliance

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### Searching for Public Health Clues at the International Science and Engineering Fair



Local and regional students got to dig into relevant STEM learning during the Education Outreach Day at the annual International Science and Engineering Fair on May 16th, 2019. Students from Kayenta and Gilbert joined APW education



specialists to learn about public health challenges related to climate change at the Phoenix Convention Center. Becoming "super sleuths," they used symptoms to discern distinctions between infectious diseases and discovered relationships between the diseases and water. By analyzing and interpreting evidence they tracked the significant increase in heat-related illnesses in Arizona over the last decade.

Student finalists from all around the world, adorned with colorful native costumes and contemplative expressions, also gathered to showcase their engineering designs and science projects. During their downtime, they engaged with exhibitors from the community; in our case exploring the groundwater system using our flow models. Energized students left realizing science and engineering are more than charts and parts.

They are important components in promoting public health.

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### Cooperative Extension Informs Consumers About PFAS

PFAS, per- and polyfluoroalkyl substances, are man-made compounds that have been used for all sorts of industrial and household uses since the 1940s. These compounds are used to make non-stick coatings, water repellents, cleaning products, paints, food packaging and more. University of Arizona Cooperative Extension has just released a paper explaining what consumers need to know about PFAS compounds including where they are found, potential health impacts and who is at risk. The publication is authored by University of Arizona's Assistant in Extension Jessica L. Dery and Water Quality Specialist & Associate Professor Channah M. Rock, as well as University of Nevada's Civil and Environmental Engineering Assistant Professor Daniel Gerrity. Because these compounds are so stable and also migrate easily, they have become widespread contaminants in the natural environment as well as in drinking water. You can reduce your exposure by avoiding foods in grease-repellant containers or by using some point-of-use water treatment systems.



Fig 2. PFAS are found in all environments and across the globe.

## UA Cooperative Extension Article on PFAS

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### Stay Hydrated in Arizona's Summer Heat

Arizona's triple-digit temperatures have arrived. If you are planning any outdoor activities, remember to keep





hydrated. Humans are composed largely of water, in fact, our brains are 95% water. We lose water constantly through breathing and sweating; the higher the temperature and the lower the humidity, the more we lose. To make up for this loss, people need to consume between 9 and 13 cups of water per day. Men generally need more than women. During moderate outdoor activity, such as hiking, experts recommend that you drink at least 2 to 2.5 cups of water per hour. This can seem like a lot of water to carry on a hike, but dehydration can cause serious damage or death. Arizona's excessive heat causes an average of 118 deaths each year and dehydration is involved in many of those deaths. If you plan to be outside for several hours, you will also need to replenish salts - think sports drinks. Wear a hat and don't forget the sunscreen.



## **Beat the Heat**

# ANNOUNCEMENTS

- **[June 15 Arizona Water Call for Nominations and Scholarship - Deadlines](#)**
- **[June 25 GSA Annual Meeting Session on the Upper Santa Cruz River - Call for Abstracts](#)**
- **[July 12 NCSE Annual Conference Science in Environmental Decision-Making - Call for Submissions](#)**
- **[July 22 JCWRE Call to Authors - Submission Deadline](#)**
- **[July 31 XVII World Water Congress - Call for Abstracts, Special Session & Side Events](#)**
- **[August 1-2 AZ Water Law Conference - Registration Open](#)**
- **[September 9-12 Biennial Conference of Science and Management on the Colorado Plateau and Southwest Region - Save the Date](#)**
- **[September 22-25 Geological Society of American Annual Meeting](#)**
- **[September 25-27 Arizona Hydrological Society Symposium - Save the Date](#)**
- **[September 26-27 Tribal Water Law - Save the Date](#)**

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