



COLLEGE OF AGRICULTURE & LIFE SCIENCES
COOPERATIVE EXTENSION

**WATER RESOURCES
RESEARCH CENTER**

March 1, 2019 / Volume 7, Issue 7

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

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DESERT WATERS INTERNATIONAL SYMPOSIUM

*Water For All
In A Rapidly Changing World*

Tucson Hosts International Water Symposium

From South Australia to southern Arizona, water is life. Communities, businesses, and wildlife all depend on scarce water supplies in a tenuous balance between deficit and prosperity. On April 2-3, the WRRC and Sky Island Alliance will co-convene the Desert Waters International Symposium in partnership with the University of Adelaide, Australia in order to pool ideas around what works for providing water to natural areas. These areas - including the plants and animals that rely on the presence of water - are still considered to be the "forgotten sector" of Arizona water law and regulation. Many ideas and potential lessons learned from our international neighbors can help Arizona reframe the link between healthy watersheds and healthy, thriving businesses and communities. The program includes a series of panels with perspectives from a range of backgrounds in the Colorado River Basin in the U.S. and Mexico and the Murray-Darling River Basin in Australia. Join us for an action-oriented discussion of how to balance social and economic water demands, while considering and providing water for natural areas.

WRRC EVENTS

WRRC Brown Bag - Stable Isotopes in Precipitation and Meteoric Waters: Investigating the North American Monsoon Across the Four Corners Region

March 14, 2019

Speaker: Crystal Tulley-Cordova, Principal Hydrologist, Navajo Nation Department of Water Resources - Water Management Branch

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



The North American monsoon (NAM) is a significant summertime feature of climate in the southwestern United States; NAM is an important contributor to total annual precipitation in the Four Corners region. For the northern extent of NAM, an observational spatiotemporal study of this substantial precipitation contributor has been understudied. Little is known about source contributors to NAM in the Four Corners region, that details about NAM and its relationship to associated water resources can be better understood using oxygen and hydrogen stable isotopes. This study characterized the spatiotemporal variability of NAM precipitation stations and meteoric waters by examining stable isotopic samples, from 2014 to 2017, collected at 39 precipitation sites, 185 groundwater wells, 7 lakes, 25 streams, and 45 springs located within the boundaries of the Navajo Nation in Arizona, New Mexico, and Utah.

Register to [view presentation online](#)

WRRC On-The-Road - Second Cobre Valley Forum on Water

April 9, 2019

Time/Location: 8:00 a.m. - 2:00 p.m. / Gila County Fairgrounds (900 E. Fairgrounds Rd., Globe)



In September 2018, leaders from government, industry, and not-for-profit organizations shared their water experiences and lessons at the First Cobre Valley Forum on Water. We learned about local and regional opportunities to create a more resilient water future for healthy communities, businesses, and the environment. Since then, the WRRC and community partners have been working to make progress on some of the top priorities related to water and community well-being. Join us to learn about recent progress and project results, engage with local decision makers, and ask questions and share ideas about water in the Globe-Miami area.

Presentation topics include:

- Water and Supply Demand
- Trails and Environmental Stewardship

- Water Education and Awareness
- Connectivity Planning

Event Flyer

UPCOMING BROWN BAGS

- **March 19** Monica Ramirez-Andreotta and Jean McLain - *Project Harvest*
- **March 28** 104b Grant Recipients Presentations
- **April 24** Tanya Quist - *UA Arboretum Integrates Desert Landscaping and Tree Shade Project into its Website*



OTHER EVENTS

Salt River Project - 12th Annual Water Conservation Expo

March 2, 2019

Time/Location: 8:00 a.m. - 1:00 p.m. / SRP PERA Club (1 E. Continental Drive, Tempe)



The expo is recognized by customers and exhibitors as one of the area's best water-themed events. There will be a variety of activities at the free expo for the entire family, including an educational bird demonstration by Liberty Wildlife. Also, exhibitors will be presenting information on ways to save water, landscape professionals will be on site to provide advice, and representatives from several Valley cities will be available to discuss their rebates and water conservation programs.

News Release

WRRRC NEWS

PFAS Explained at WRRRC Brownbag

On February 20th, Mark Brusseau, Professor in University of Arizona's Department of Soil Water and Environmental Science, gave an excellent presentation about per- and poly-fluoroalkyl substances (PFAS) at the WRRRC Brownbag. Dr. Brusseau explained that

PFAS comprise a large family of compounds and he described their various applications, which range from non-stick materials to stain-resistant materials, to cleaning products, paints and food packaging, resulting in their widespread distribution in the environment. He presented maps of the U.S. and of Tucson showing groundwater sites with PFAS detections. Based on public water utility data, six million people in the U.S. may be affected by these contaminants.



Dr. Brusseau also described human exposure and regulatory controls and provided insight into the chemical structure of these compounds. Their low volatility, relatively high aqueous solubility, low transformational potential, and frequent occurrence in mixtures present significant analytical constraints and make them uniquely persistent in the environment.

[View PowerPoint Presentation](#)

Please RSVP for the 2019 Women in Science and Engineering Banquet

On March 14, Women in Science and Engineering (WISE) will hold its 2019 Science and Engineering Excellence Banquet in the University of Arizona Student Union. This annual event brings together University of Arizona faculty, staff, and students - as well as members of industry and the general public - who support the efforts of WISE to engage women and girls in science and engineering careers. This no-cost event will feature a keynote presentation by Dr. Rebecca Diaz Brinton, Director of the University of Arizona Center for Innovation in Brain Science. WRRRC Research Scientist Jean E. McLain has served on the Advisory Committee for WISE since 2013

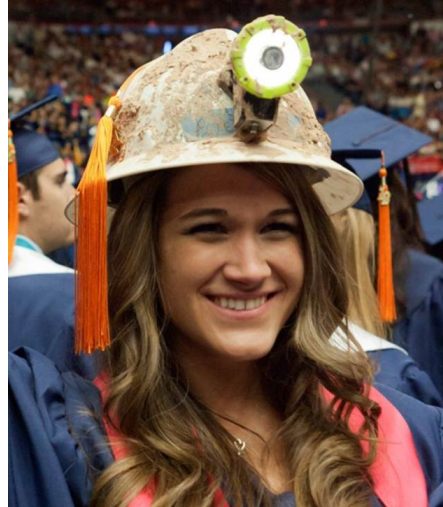


Photo Credit: Degree Search UA College of Engineering

[Information and Registration](#)

Immersive Watershed Experience



At the Santa Cruz River Field Study [teacher professional development workshop](#) over Tucson's Rodeo Break, teachers experienced frigid temps and heavy snow! Our teachers braved cold winds



Thursday on a hillside overlooking Nogales' transboundary watershed while learning from USGS geologist Floyd Gray about changes over time in the management and flow of water from the Nogales International Wastewater Treatment Plant (NIWTP). After a tour through the plant, teachers explored Tumacácori National Historic Park where Ranger Melanie Rawlins provided historical context in understanding the founding of the mission along the banks of the flowing Santa Cruz River. We regrouped at the USGS office on campus where Pima County Natural Resources, Parks and Recreation education program coordinator, Yajaira Gray, spoke about Canoa Ranch as well as groundwater and watershed resources related to the Santa Cruz River. Teachers then embarked on a snowy tour with ethnobotanist Jesus Garcia at Mission Garden. Throughout the workshop teachers used systems thinking to understand and evaluate the human impacts on the watershed. As the snow turned to rain the workshop ended with a presentation by Tucson Water hydrologist Dick Thompson on the Santa Cruz River Heritage Project. It was a historic "Snow"deo vacation for this group of dedicated teachers.

Water Resources *IMPACT* Publishes



Article on Arizona Water Planning

The American Water Resources Association's (AWRA) January 2019 issue of *Water Resources IMPACT*, a bi-monthly magazine, featured an article about Arizona's water planning efforts. Written by Einav Henenson, Deputy Area Director for Arizona's Active Management Areas in the Arizona Department of Water Resources, the article focuses on Arizona's history of active groundwater management through its Active Management Areas, the state's rural water management efforts, drought planning, and drought contingency planning. AWRA also released a study of state water plans, which is available online. You can access this article and January 2019 *Water Resources IMPACT* using the link below.



[IMPACT
Henenson PDF](#)

WRRC Student Presents at Coverdell Outreach and Research Poster Showcase

WRRC's Graduate Outreach Assistant and Coverdell Fellow, Chris Freimund, presented a poster, "Meeting the Water Resources Research Center's Mission through Outreach", at the UA Coverdell program's Outreach and Research Poster Showcase on February 22nd. After Chris finished his Peace Corps work in Guatemala, he came to the University of Arizona to obtain a Master's degree in Natural Resources. The Peace Corps Paul D. Coverdell Fellowship helps returned Peace Corps volunteers pay for and succeed in graduate school. This year, to celebrate Peace Corps Week, the Coverdell program hosted its first Outreach and Research Poster Showcase. Each of the fellows had the opportunity to present and share the positive work that they have been doing alongside community partners in their assistantship organizations. Chris's poster described the two projects he has been working on in collaboration with WRRC staff: our annual conference, and a water education project in the Green Valley area called Know About Your Water.



Photo Credit: Georgia Ehlers

[Peace Corps Coverdell Fellows](#)

ANNOUNCEMENTS

- [March 1 Western Groundwater Congress 2019 - Call for Abstracts](#)
- [March 6 Sky Island Alliance Seeks Program Director - Application Review Begins](#)
- [March 10 AWRA 2019 Summer Conference - Call for Abstract](#)
- [March 13 Research Advancement Grants - Letter of Intent Due](#)
- [March 15 ALVSCE Poster Forum - Abstracts Due](#)

- [March 15 AZ Water Annual Conference & Exhibition - Early Bird Registration Ends](#)
- [March 15 CUAHSI Master Class on Food, Energy, and Water Systems in a Global Economy - Early Bird Registration Ends](#)
- [March 18 AWRA-CAS International Conference in Beijing - Call for Abstracts](#)
- [March 21-22 Law of the Colorado River Conference - Registration Open](#)
- [March 26-28, Ten Across \(10X\) Water Summit - Agenda Posted](#)
- [March 28 Arizona Project WET Tucson Water Festival - Volunteers Needed](#)
- [March 31 - April 3 AWWA Sustainable Water Management Conference - Program Online](#)
- [April 6 - 2019 Arizona Hydrological Society Symposium - Call for Abstracts](#)
- [April 12 - 2019 UCOWR/NIWR Annual Water Conference - Early Bird Registration Ends](#)
- [April 15 New Mexico WRRRI 63rd Annual Water Conference - Call for Abstracts](#)
- [May 10 Desert Horticulture Conference - Early Registration Closes](#)

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