



February 22, 2019 / Volume 7, Issue 6 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>

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UA Drives Tucson's 2030 District Pledge for Water, Energy Savings

In December 2018 Tucson, Arizona became one of more than 20 other cities in North America to join the 2030 District Network. The UA's Office of Sustainability was the driving force in coordinating the partnership between UA, The City of Tucson, and Pima County. The 2030 Districts Network is a US nonprofit aiming to develop and sustain local 2030 Districts in their drive to achieve the 2030 Challenge goals of reducing water use, water consumption, and transportation greenhouse gas emissions by 50% by the year 2030. Tucson has 10 million square feet committed in its pledge to demonstrate that "high performing buildings can be the most valuable and economical buildings" in the area. With these goals in mind, Tucson and other cities will strive toward carbon neutrality, in an effort to be economically and environmentally sustainable by 2030.

2030 Districts



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. Characteristic 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 precipitations and meteoric waters by examining stable isotopic samples, from 2014 to 2017, collected at 39 precipitation, 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

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



WRRC NEWS

2019 WRRC Conference Videos are Posted

Videos have been posted for the February 1st, WRRC annual conference; *Arizona Runs on Water: Scarcity, Challenges, and Community-based Solutions.* This is a great resource if you were not able to attend and would like to gain an overview of Arizona water and how communities are addressing water scarcity issues around the state. The conference included a



presentation by Gerry Walker, Deputy Assistant Director of the Arizona Department of Water Resources (ADWR), who described water supply and demand conditions region by region across the state. Community panels included presentations from Cochise, Graham, Yuma, and Mohave counties, as well as the Gila River Indian Community, the Colorado River



Indian Tribes, the Town of Payson, and the City of Flagstaff. Rita Maguire, former Director and Chief Legal Counsel for ADWR, helped put water topics in perspective with her presentation on statewide water laws and regulations.

Videos of these and other presentations can be accessed on the UA WRRC Youtube channel.

WRRC Youtube

Colorado River Basin Tribal Water Workshop

On February 13-14 WRRC Director Sharon B. Megdal attended the Water & Tribes in the Colorado River Basin-wide Workshop at the We-Ko-Pa Hotel in Ft. McDowell, AZ. The objectives included clarifying tribal needs, interests, priorities, and next steps with respect to the <u>Colorado River Basin Ten Tribes Partnership</u> <u>Tribal Water Study</u>. Topics covered included: highlighting tribal observations and concerns in geographically diverse areas; generating proposals that encourage tribal water sharing; updating the 2007 Interim Guidelines; and learning about emerging resources. Katharine Jacobs, Director, UA Center for Climate Adaption Science and Solutions, also participated in the workshop.



It's all about Inspiration - Volunteer at Underwater Robotics Event



Come meet our next generation of engineers and problem solvers! Arizona Project WET is seeking volunteers to assist with an Underwater Robot



Competition on Saturday, April 27, 2019, from 7:30 AM - 5:00 PM at the University of Arizona Recreation Center (1400 E. 6th St).

Arizona 5th - 12th-grade students have formed teams to compete in this SCOUT level Arizona <u>Regional MATE Competition</u>. Teams are designing and building underwater robots to accomplish a set of tasks that highlight the role of remotely operated vehicles in assessing, sampling and cleaning freshwater lakes, rivers and dams. Volunteers of all backgrounds are needed to help judge marketing displays, engineering presentations, and product demonstrations in the pool. They can also help with scoring and organizing the event. Volunteers have the option to work for a half day or full day. Training will be provided the day of the event. Sign up today to help with this exciting STEM event.

Volunteer Sign Up

Emery Coppola Gives WRRC's First Webinar-Only Brown Bag Lecture

February 13th's WRRC Brown Bag Lecture was the first of its kind for the WRRC as the speaker was thousands of miles away from Tucson, Arizona while giving it. Lecturing in New Jersey, UA Alumnus Emery Coppola,



President, NOAH LLC, lectured on Artificial Intelligence (AI), its history, and its applications to hydrology. Coppola began his presentation with a historical perspective of how AI technology has evolved over time, including its use in facial, speech, and handwriting recognition, and chemical analysis. Coppola also discussed how AI's search for patterns that are very difficult to discern could have many applications for water management, including surface water and groundwater quality, surface water and groundwater elevations, surface water flows, and water demand. Find out more by accessing Coppola's presentation and webinar online.

View Recorded Webinar

WRRC Presents Lifelong Learning Course in Vail

Beginning Thursday, February 28, WRRC professional staff and faculty are presenting a course on topics in water resources for the Osher Lifelong Learning Institute (OLLI). The course will consist of individual



classes on innovations in water education (Kerry Schwartz), transboundary water governance (Jacob Petersen-Perlman), recycled water quality (Jean McLain), community-based water resource solutions (Susanna Eden), and the water resources of Arizona (Claire Zucker). For the first year since the WRRC started giving OLLI courses in 2014, the classes will be offered at the OLLI-UA Southeast Tucson Campus, in the Christ Lutheran Vail Church, 14600 E. Colossal Cave Rd., Vail, AZ. OLLI-UA is a membership-driven lifelong learning program open to all adults over the age of 50. This course and most class offerings are free to members.

Information and Registration



- <u>Greater Phoenix Metro Green Infrastructure Handbook: Low Impact</u>
 <u>Development Details for Alternative Stormwater Management Download</u>
 <u>Available</u>
- February 28 March 1 MSSC Salinity Summit
- February 28 WaterSmart Innovations 2019 Conference Call for Abstracts
- March 1 Western Groundwater Congress 2019 Call for Abstracts
- March 10 AWRA 2019 Summer Conference Call for Abstracts
- <u>March 15 ALVECE Poster Forum Abstracts Due</u>
- March 15 Research Advancement Grants Letter of Intent Due
- March 15 AZ Water Annual Conference & Exhibition Early Bird

Registration Ends

- <u>March 15 CUAHSI Master Class on Food, Energy, and Water Systems in a</u> <u>Global Economy - Early Bird Registration Ends</u>
- <u>March 18 AWRA-CAS International Conference in Beijing Call for</u> <u>Abstracts</u>
- 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
- <u>March 31 April 3 AWWA Sustainable Water Management Conference -</u> <u>Program Online</u>
- <u>April 6 2019 Arizona Hydrological Society Symposium Call for</u> <u>Abstracts</u>
- <u>April 12 2019 UCOWR/NIWR Annual Water Conference Early Bird</u> <u>Registration Ends</u>
- <u>April 15 New Mexico WRRI 63rd Annual Water Conference Call for</u> <u>Abstracts</u>
- May 31 Desert Horticulture Conference Save the Date

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