

# WEEKLY WAVE



COLLEGE OF AGRICULTURE & LIFE SCIENCES  
COOPERATIVE EXTENSION

**WATER RESOURCES  
RESEARCH CENTER**

**April 27, 2018 / Volume 6, Issue 17**

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

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## The WRRC Bids a Fond Farewell to 2018 Graduates

Watching our WRRC students graduate is always bittersweet, and this year is no exception. Five gifted students, connected in various ways to the Water Resources Research Center, will be graduating and moving on to exciting water-related careers. Jake Golden, who has been an outstanding contributor to WRRC efforts over the past two years, will be awarded his Master's in Water, Society, and Policy this May. He is seeking employment in the Western U.S. for water resource management and water supply planning. Valerisa Joe, who has been performing research in the laboratory of Jean McLain since she was an undergraduate in 2012, will be awarded her Ph.D. Val has been instrumental in developing molecular methods for water quality analysis and adapting food safety training materials for Arizona tribes. She is considering a job offer in the Southeastern U.S. Also from McLain's lab, Robert Lynch, who researched toxin-

producing algae, will graduate with his Master's degree and will begin his career by conducting environmental assessments for a Florida consulting firm. Joel Atwood, a Coverdell Fellow working with the Water, Environmental, and Energy Solutions initiative will receive his Master's in Hydrology and then will move to Colorado to work for the USDA on snow research. Finally, Danielle Richard, who has been a valued Water Educator with Arizona Project WET since 2015, will graduate with a Bachelor of Science in Ecology and Evolutionary Biology and is currently seeking employment at the nexus of public health and environmental sciences.

Though bidding farewell will be sad, we are heartened to know that our water future is going to be in capable hands. Congratulations, graduates!

## OTHER EVENTS

### AZ Geological Society Presents - The Science of Caves

**May 1, 2018**

**Time/Location:** 8 :00 - 9:00 p.m. / Sheraton Tucson Hotel (5151 E. Grant Rd., Tucson)

**Speaker:** Dr. W.B. White, *Professor Emeritus, Penn State*



Great White WOW Barberrry Cave  
Burnsville Cove, VA

Caves form by two distinct mechanisms. Both the equilibrium and kinetics of the reactions are well-known and some elegant models have been made of cave development. A more recent finding is that many caves have formed by deep-seated solutions welling up to the water table with the active agent being sulfuric acid rather than carbonic acid. What brought cave studies into the mainstream of the Earth sciences is the importance of karst aquifers as water supplies. Karst aquifers are a major source of domestic water supply. Their conduit permeability means that karst aquifers respond rapidly to flood flows with changes in flow paths and water levels. Contaminant transport in karst aquifers is rapid, often to unknown destinations, and strongly dependent on the physical properties of the contaminant.

### Water Roots - Seeking Springs in Sonora: New findings From Spring Surveys and the Students Working to Study Them

**May 7, 2018**

**Time/Location:** 6:00 p.m. / Exo Roast Coffee Co. (403 N. 6th Ave., Tucson)

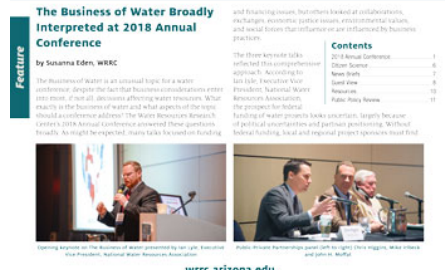
**Speaker:** Mirna Manteca, *Mexico Conservation Manager, Sky Island Alliance*



Springs are where people and wildlife come together; they are the common language between conservation and human livelihood in the Sonoran Sky Islands. Young biologists from the University of Sonora have come together and are currently working with private landowners, ejidos (communal farmers), and federal agencies to locate and assess spring ecosystems in Sonora. By populating the map, the Sonoran Springs Exploration Group is creating baseline information that will help us better understand how to protect our critical water sources in the face of climate change.

## Spring Arizona Water Resource Published

The Spring 2018 Arizona Water Resource highlights the WRRC's Annual Conference: The Business of Water, held on March 28th at the University of Arizona Student Union Memorial Center in Tucson. A feature article and accompanying photographs summarize the talks and panels on a broad range of topics presented to the approximately 300 attendees from across Arizona and beyond. A Guest View by Richard Morrison, Chairman of Morrison Enterprises, reprises the remarks he prepared for the conference panel on water transactions in which he lays out the case for applying ethical principles to water policy. WRRC Director Sharon B. Megdal's Public Policy Review column presents her take-away messages from the day. In addition, the WRRC's Student Outreach Assistant, Sam Potteiger, writes about the value of citizen science to expand data collection on Arizona's water resources. News Briefs and Resources sections offer a taste of what's new in the world of water.



### [Read the AWR](#)

## Melanie Stansbury discusses the future of U.S. Water Policy

Melanie Stansbury, Senior Advisor and Consultant, Utton Transboundary Resources Center, University of New Mexico, spoke on April 25 at a WRRC Brown Bag seminar about old and new paradigms of water policy in the United States. Stansbury described how the old paradigm of U.S. water policy has followed the philosophy of "capture, move it, use it, or lose it," and how a new paradigm of "water security for people and nature" has emerged in more recent years. Stansbury previously worked in Washington D.C. in the U.S. Senate Committee on Energy and Natural Resources and at the White House Office of Management and Budget. She argued that water battles on Capitol Hill have consisted of clashes between these two paradigms.



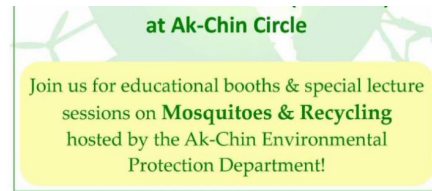
## APW Celebrates Earth Day with the Ak-Chin Indian Community



With events in more than 193 countries, Earth Day has become a worldwide phenomenon to promote some of the most pressing issues our planet faces. Arizona Project WET and the Ak-Chin community



are no strangers to celebrating and raising awareness among community members about local and global environmental issues. On Friday, April 20th APW joined various conservation groups their programs and products at the sprawling Ak-Chin/Ultrastar Events Center in the Town of Maricopa to exhibit and educate members of the community. APW Americorps members focused on the local watershed and its underlying but connected groundwater system.

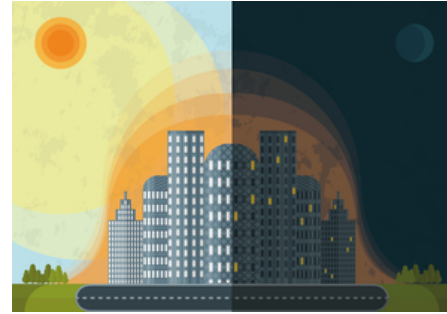


## [Learn More About APW](#)

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### **A Life in Balance for Desert Dwellers**

In recognition of Earth Day, UA Now featured a story in which three UA experts in water management, urban planning, and architecture, shared their expertise to address questions regarding the sustainability of a growing population in the desert. Arizona is ranked 5th highest in population growth; the number of Arizonans in need of water and relief from the heat is large and growing. WRRRC Director Sharon B. Megdal



approached the question of Arizona's water future by looking at its past. Arizona's desert cities are finding ways to conserve and reuse their scant water supply. Ladd Keith, an expert in urban planning, showed how newly developed heat maps are enabling prudent planning decisions. Christopher Domin, Associate Professor of Architecture talked about strategic and sustainable architecture. All three experts believe that Arizona can sustain the growing population. Megdal said, "With increased dialogue among architects, water planners, and land-use planners, Tucson will continue to stack up very well against other desert cities in the Southwest."

## [Read UA News Story](#)

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### **Director Laila Khan's *Stolen Water* Screened on April 23rd**

The WRRRC co-sponsored a screening of the film *Stolen Water* with the Center for Middle Eastern Studies on Tuesday, April 23. Director Laila Khan participated in a conversation with audience members after its showing. Khan's documentary focuses on water theft in Jordan, one of the most water-scarce countries in the world, and the measures that authorities are taking to curb violations on the water network. The filmmakers interviewed authorities from Jordan's Ministry of Water and Irrigation, as well as people who have been caught stealing water. The film casts the debate on whether water should be valued as a human right or as a commodity in a new light.



## [Link to trailer](#)

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### **Help Tucson to Win AND Save Water: Mayor's Challenge for Water Conservation**

The National Mayor's Challenge for Water Conservation



is open for one more week and Tucson is in first place in the "300-600K population" category! During the 2017 challenge, residents from more than 4,800 cities in 38 states across the U.S. pledged to save over 2.2 billion gallons of water over the next year. The month-long challenge, open from April 1 to 30, promotes drought resiliency and water quality - participants see the enormous impact they can have by taking simple actions to save water and energy.

Come on, Tucson! Click on [www.mywaterpledge.com](http://www.mywaterpledge.com) to show whose city is the nation's most "water wise."

## ANNOUNCEMENTS

- [Good Neighbor Environmental Board Seeking Nominations](#)
- [Capture Versus Capture Zones: Clarifying Terminology Related to Sources of Water to Wells - New Paper from USGS Researchers](#)
- [April 29 - May 1 Next Generation Water Summit](#)
- [May 2 Water Roots - Snowfall and Frogs: Connecting Mountain and Desert Water](#)
- [May 2-4 AZ Water 91st Annual Conference & Exhibition](#)
- [May 6 CAP Seeks Water Resource Planning Analyst II - Application Due](#)
- [May 7 AWRA 2018 Annual Water Resources Conference - Call For Abstracts Deadline](#)
- [May 9 Pima County Regional Flood Control District Monthly Brown Bag Series](#)
- [May 10 PNW WaterReuse Conference - Online Registration Ends](#)
- [May 14 DOE Critical Water Issues Prize Competition RFI - Response Due](#)
- [May 21-24 U.S. EPA Region 9 Tribal Drinking Water Symposium - Registration Open](#)
- [May 22 Water Conservation Field Services Grant - Applications Due](#)
- [June 15 WaterReuse AZ 2018 Scholarship - Application Due](#)
- [June 26-28 UCOWR/NIWR Annual Water Resources Conference - Registration Open](#)
- [June 29 MSSC Student Scholarship Program - Applications Due](#)
- [July 9-11 AWRA Summer Conference: The Science, Management, and Governance of Transboundary Groundwater - Registration Open](#)
- [September 26 Innovations at the Nexus of Food, Energy, and Water Systems \(INFEWS\) - NIFA Grant Application Due](#)

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