



COLLEGE OF AGRICULTURE & LIFE SCIENCES  
COOPERATIVE EXTENSION

**WATER RESOURCES  
RESEARCH CENTER**

**January 11, 2019 / Volume 7, Issue 1**

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

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## Participate in the 2019 WRRRC Annual Conference

The WRRRC 2019 Conference, "Arizona Runs on Water: Scarcity, Challenges, and Community-based Solutions", will include a new participatory element. We are soliciting case studies that describe a community water challenge/solution, including the barriers or opportunities that have hindered or helped the community work toward a solution. You can submit your case-study through a simple online form where you can indicate your interest in presenting a three-minute lightning talk during the conference session. You don't have to attend the conference to contribute. All submissions will be included in a compendium of case studies as a follow-up to the conference. Submissions are due by close of business today, Friday, January 11, to be eligible for presenting at the conference. Lunch speakers must be registered for the conference, which will

take place on February 1, 2019 (8 am - 2 pm), at the Black Canyon Conference Center, 9440 N. 25th Ave., Phoenix, Arizona.

Submit your case study [here](#).

Register Here

## WRRC EVENTS

### WRRC Brown Bag - Effects of Energy Extraction and Utilization on Source Water Bromide Concentration and Finished Drinking Water Risk

January 30, 2019

**Speaker:** Jeanne VanBriesen, Ph.D., P.E., F.ASCE, F.EWRI, Duquesne Light Company Professor, Civil and Environmental Engineering & Engineering and Public Policy



**Time/Location:** 4:00 p.m. - 5:00 p.m./Marley Building Rm. 230, 1145 E. 4th St., Tucson  
**Please note special time and location.**

Natural and anthropogenic sources of bromide can alter source waters in ways that affect drinking water quality and human health risk. Energy extraction and utilization activities including oil and gas extraction and coal-fired power plants are new sources of bromide that can affect drinking water sources, especially under low flow conditions where dilution does not adequately reduce bromide concentrations. Watershed-, state-, and national-level analyses highlight the critical characteristics of regions where current bromide loads are affecting drinking water consumers. Dr. Jeanne VanBriesen, Duquesne Light Company Professor of Civil and Environmental Engineering and Engineering and Public Policy at Carnegie Mellon University, will discuss these new anthropogenic sources and will provide an overview of water quality impacts associated with these new sources during her seminar on January 30. The event is co-sponsored by the UA School of Earth and Environmental Sciences and the Water Resources Research Center.

See full abstract and bio [here](#).

### WRRC Brown Bag Webinar - An Abbreviated History and Overview of AI with Example Applications to Hydrology

February 13, 2019

**Speaker:** Dr. Emery Coppola Jr., President NOAH LLC



**Time/Location:** 12:00 p.m. - 1:15 p.m.

Webinar viewing will be hosted in the WRRRC Sol Resnick Conference Rm., 350 N. Campbell Ave., Tucson. It can also be viewed through GoToWebinar.

A short historical overview of Artificial Intelligence (AI), how it came into existence, and its evolution from its inception to today, will be presented. This includes the seminal "Turing Machine", the original two AI schools of thought, the so-called AI winter, its rebirth in 1986, and recent renaissance with Deep Learning. This will be followed by two illustrative hydrological examples. reality at a commercial scale. The presentation will be concluded with thoughts regarding present-day applications and requirements for AI in water management.

### [GoToWebinar](#)

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## UPCOMING BROWN BAGS

- **February 20** Mark Brusseau  
*PFAS In Water*
- **March 14** Crystal Tulley-Cordova  
*Climatology in the Four Corners Region*
- **April 24** Tanya Quist -  
*UA Arboretum Integrates Desert Landscaping and Tree Shade Project into its Website*



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## 2019 Chocolate Fest

**February 15, 2019**

Don't miss the 15th Annual WRRRC Chocolate Fest! Share your favorite treats and try sinfully spectacular creations from your water friends and colleagues. Come applaud the WRRRC's photo contest winners while celebrating the joys of chocolate. Invite your friends to join the fun! We hope to see you all there!



### [Flier](#)

## OTHER EVENTS

**Smartscape - Spring 2019 Course  
Registration is Open!**

**February 5 - March 7, 2019**

**Time/Location:** 3:00 p.m. - 6:00 p.m. / Maricopa County Cooperative Extension office (4341 East Broadway Rd. Phoenix, AZ 85040)



Join the next Smartscape training session for landscape professionals and increase your knowledge in the design, installation, irrigation, and maintenance of desert landscapes. The University of Arizona, Maricopa County Cooperative Extension is accepting registrations for the spring 2019 Smartscape series. Classes will be held on Tuesdays and Thursdays from February 5 - March 7.



## [SmartScape](#)

# WRRRC NEWS

## WRRRC Director Kicks Off SWES Spring Colloquium Series

On Monday, January 14 at 3:00 p.m in Marley 230, WRRRC Director and Soil, Water, and Environmental Science (SWES) professor Sharon B. Megdal will start off the spring colloquium series with a presentation titled "Issues in Groundwater Governance and Their Relationship to Graduate Student Training". Groundwater is the invisible water resource. Because it cannot be seen, much scientific effort goes into characterizing its quantity and quality. Dr. Megdal will underscore approaches to working with stakeholders and practitioners, highlight student research opportunities, and address the relevance of water policy and management to SWES graduate students.



*Dr. Megdal teaches Water Policy in Arizona and Semi-arid Regions (ENVS 596B), which meets on Fridays, starting January 11, 2019, from 9:00 to 11:30 am at the Water Resources Research Center.*

## New Online Groundwater Rights Map

The Arizona Department of Water Resources announced recently that its website will feature a new map with interactive search features, giving the public convenient access to geographical and other data about their groundwater rights. In mid-January, the estimated 4,000 to 5,000 landowners with groundwater rights will be able to find the location and boundaries of their groundwater rights and determine if a parcel of land has a grandfathered right (GFR) appurtenant to it. Intended for use by owners and lessees of irrigation GFRs and of "Type 1" non-irrigation GFRs, the map can be searched by address, parcel number, owner name, or groundwater-right number. The Grandfathered Right Web Map will be active by mid-January. A draft version is available in the link below.



## [View Draft Version](#)

## Hopes for the Future







In the spirit of welcoming the New Year, the Arizona Project WET team offers these hopes for the future, inspired by the poem *Imagine the Angels of Bread* by Martin Espada. You

too can share your hopes for Arizona's water future on Arizona Project WET's Facebook page!

This is the time that the stewardship efforts of Arizonans make rivers supported by abundant groundwater stores flow, gurgle, or rush toward the Colorado.

This is the time that seven states come together and plan for water shortage with compassion, reason, and prudence

This is the time that carbon emissions begin to drop due to our actions and we inspire other states to act accordingly eventually stabilizing global temperatures.

This is the year that Arizona schools are well-funded and well-regarded, filled to the brim with curiosity, investigation and excitement,

This is the year that everyone will want to join the inspiring work being done in classrooms:

- To show children the wonders of water in a desert
- To be inspired to mathematical wonder by water saved by new aerators
- To be fascinated by our groundwater system
- To engineer solutions to new challenges

If the Groundwater Management Act and the CAP were born from the labor of people with a vision for desert communities with sustainable water resources Then surely, this is the time.



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## UA Students Make Water from Air

Students from UA were recently featured in an article in the *Arizona Daily Star* about their work to install generators that draw drinking water from humid air for communities in Peru. The students, led by Marcela Hernandez, are working independently of the university for funding and installing the generators in impoverished communities as part of a project called "Hace Agua" (translation: "make water"). The group successfully tested and installed two atmospheric water generators over last summer in a public park in a lower-middle-class neighborhood of Lima. Congratulations to these Wildcats for their innovative project!



[Arizona Daily Star](#)

## ANNOUNCEMENTS

- [Rio de Flag Seek Watershed Group Coordinator - Job Opportunity](#)
- [Santa Cruz River Research Days Proceedings Complete](#)

- [January 12 RiversEdge West's 17th Annual Riparian Restoration Conference - Discount Registration Ends](#)
- [January 18 The "End" of Environmental Law?](#)
- [January 21 JCWRE Open Issue Call for Papers - August Issue Deadline](#)
- [January 22-23 Western Water Summit - New Opportunities to Earn EUCs](#)
- [January 25 UCOWR/NIWR Annual Water Resources Conference - Abstracts Due](#)
- [February 1 WRRRC 2019 Annual Conference - Arizona Runs on Water: Scarcity, Challenges, and Community-based Solutions](#)
- [February 7 34th Annual WaterReuse Symposium - Call for Abstracts Deadline](#)
- [February 28 - March 1 MSSC Salinity Summit](#)
- [February 28 WaterSmart Innovations 2019 Conference - Call for Abstracts](#)
- [March 21-22 Law of the Colorado River Conference - Registration Open](#)
- [March 31 - April 3 Sustainable Water Management Conference - Program Online](#)
- [May 13-16 CUASHI Master Class on Food, Energy, and Water Systems in a Global Economy](#)

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