

# SUMMER WAVE



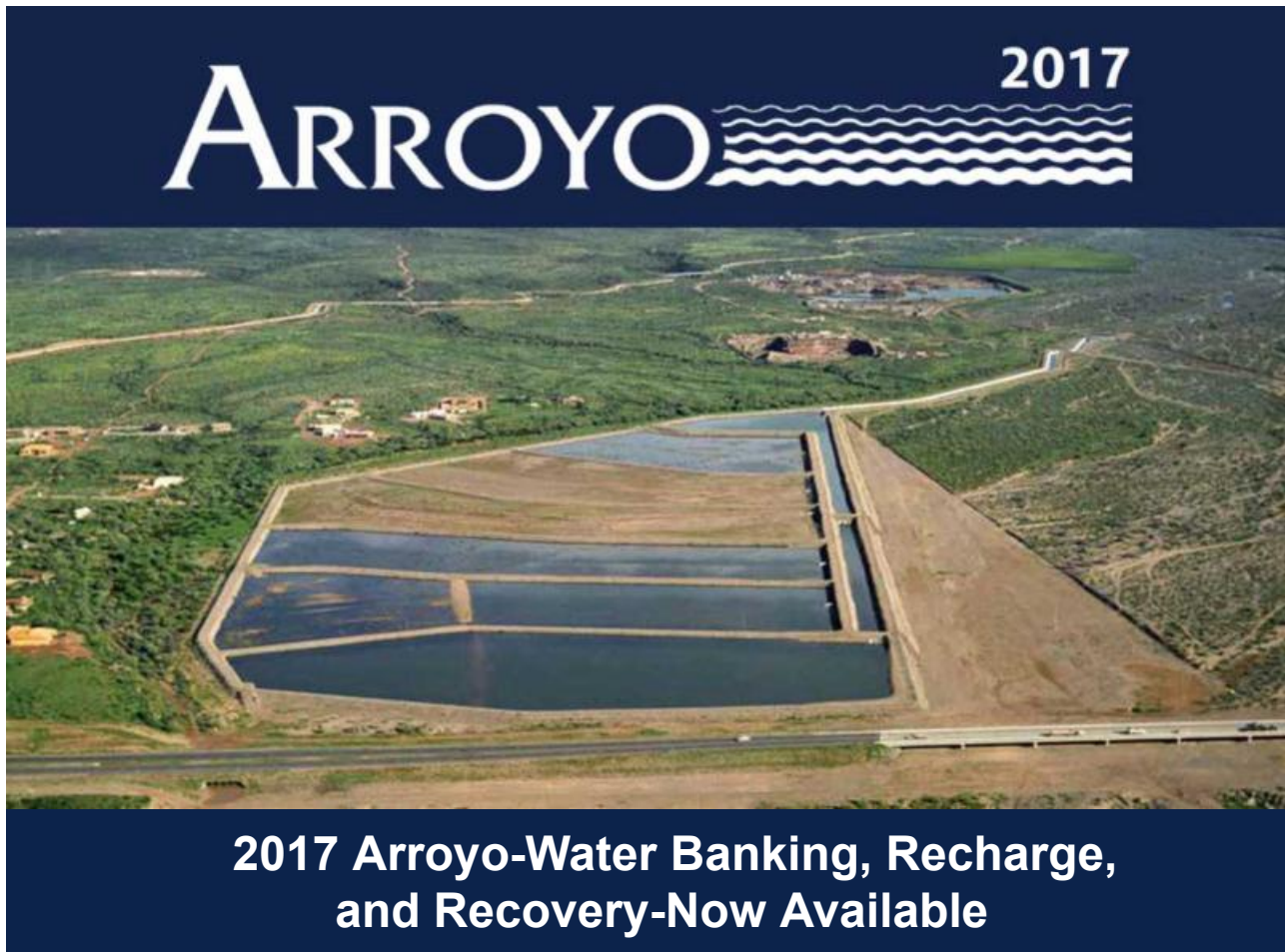
COLLEGE OF AGRICULTURE & LIFE SCIENCES  
COOPERATIVE EXTENSION

**WATER RESOURCES  
RESEARCH CENTER**

**June 9, 2017 / Volume 5, Issue 2**

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

In this issue: [San Pedro](#) / [UCOWR](#) / [STEM](#) / [Water Congress](#) / [ADEQ](#) / [Prize](#)

The cover image for the 2017 Arroyo publication. It features a dark blue header with the word 'ARROYO' in large white serif font, followed by a graphic of white wavy lines representing water. The year '2017' is in the top right corner. Below the header is an aerial photograph of a large, multi-sectioned water storage reservoir in a dry, hilly landscape. At the bottom of the image is a dark blue banner with white text.

## 2017 Arroyo-Water Banking, Recharge, and Recovery-Now Available

The University of Arizona Water Resources Research Center is pleased to announce the publication of the 2017 Arroyo: Arizona Water Banking, Recharge, and Recovery. Arizona water banking, recharge, and recovery involve the storage of water underground in natural aquifers for future use. The Arizona Water Banking Authority is a major water storer. Others include cities, towns, and private water companies. While the basic concepts may be simple, how they are carried out can be very complicated. This Arroyo uses clear and straight forward language to untangle the complications for

anyone interested in how Arizona's water banking, recharge, and recovery actually work. A year in the making, this Arroyo carries on a unique tradition of exploring and presenting state-of-knowledge information each year on a timely topic relating to Arizona water.

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## WRRC EVENTS

### WRRC Brown Bag - Preserving Lake Kinneret (the Sea of Galilee) as a Strategic Regional Water Resource in a Changing Climate

**June 16, 2017**

**Time/Location:**

12:00 p.m. - 1:15 p.m./ WRRC Sol Resnick Conference Room (350 N. Capmbell Ave., Tucson)

 **If you can't make it to the live seminar on June 16th, join us online [here](#).**

**Co-sponsored by:**

The Weintraub Israel Center and Conrad and Ann Plimpton

**Speaker:**

Doron Markel, *Israeli Water Authority*

Lake Kinneret (the Sea of Galilee) is the only freshwater lake in Israel, supplying about 20% of the country's potable water. Israel also supplies 50 million cubic meters per year (MCM/y) from the Lake to the Hashemite Kingdom of Jordan. There are plans to increase the supply to Jordan to 100 MCM/y by 2020, according to a recent agreement between the countries related to the Red Sea-Dead Sea project. The Lake also sustains commercial fisheries and serves as a tourist attraction. According to long term climate forecast models, net inflows into Lake Kinneret will continue their downward trend. The presentation will discuss the challenges of managing Lake Kinneret and the strategic management plan implemented by the Israel Water Authority. The plan includes increased removal of saline inflows, fisheries management, intensified prevention of pollution in the watershed, and increased water inflow and water exchange by various means.



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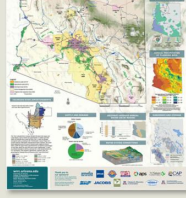
**Check out all of our upcoming events and videos of previous events [on our website](#)**

## Arizona Water Map

**Water Map Posters are Available**



The new Arizona Water Map posters may now be purchased from the WRRRC. The product of a team of water resources experts and advisors, the new map accurately depicts key components of Arizona's water picture. Notable updates to the fourth version of the map include a stronger emphasis on water supply and demand, updated data, emphasis on groundwater usage, and a new, natural terrain background.



**POSTER  
NOW  
AVAILABLE**

**TO ORDER, CALL  
(520) 621-9591  
OR  
CLICK HERE**

Maps are now on sale for \$12.00 plus applicable tax and shipping charges. Click the link below to order your map today!

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## NEWS

### San Pedro Binational Study Forum in Sierra Vista

The WRRRC is hosting a forum in Sierra Vista on Tuesday, June 20th from 2:00 to 4:00 PM at UA South's Public Meeting Room. The purpose of the forum is to summarize the results of the Binational Study of the Transboundary San Pedro Aquifer, which was completed as part of the binational Transboundary Aquifer Assessment Program (TAAP). The study report was released by the International Boundary and Water Commission in December 2016 in both Spanish and English. The report can be accessed [here](#), and a summary of the report can be found [here](#). The forum will feature presentations for WRRRC Director Sharon B. Megdal, WRRRC graduate student Elia M. Tapia, and USGS hydrologist James Callegary. Participants will also discuss future directions for TAAP efforts. More information on TAAP can be found at [wrrc.arizona.edu/TAAP](http://wrrc.arizona.edu/TAAP). To RSVP, please email [Elia Tapia](mailto:Elia.Tapia) or [Jacob Petersen-Perlman](mailto:Jacob.Petersen-Perlman) by Friday, June 16th.



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### UCOWR/NIWR Conference Program Shows Arizona Impact

Arizona has a significant presence on the program of the Universities Council on Water Resources (UCOWR) Annual Conference "Water in a Changing Environment" June 13-15, 2017, at the Colorado State University Lory Student Center, Fort Collins, CO. To begin the program, with its four plenary sessions and 54 concurrent sessions, WRRRC Director Sharon B. Megdal will welcome participants in her role as Conference Chair. During the conference, Megdal will moderate a session on the challenges of managing interdisciplinary water resources programs, in which she will present the talk, "Challenges and opportunities associated with two graduate interdisciplinary programs at the University of Arizona." Other WRRRC staff and students contributing to the conference include Jacob Peterson-Perlman and Elia Tapia, who will be making presentations on the U.S.-Mexico Transboundary Aquifer Assessment Program in Arizona. Megdal students Rebecca Bernat ("Water banking, recharge and recovery in Arizona: The use of long-term storage credits") and

Preliminary Program

2017 UCOWR/NIWR Annual Conference  
"Water in a Changing Environment"

June 13-15, 2017  
Colorado State University  
Fort Collins, CO

UCOWR  
UNIVERSITIES COUNCIL  
ON WATER RESOURCES

NIWR  
NATIONAL INSTITUTE  
OF WATER RESOURCES



Ethan Vimont ("Analyzing water rebate programs in Tucson, AZ") will be presenting posters. Other moderators and speakers from the University of Arizona will include Karletta Chief (engaging tribes on water management topics and the Gold King Mine spill) and Connie Woodhouse (integrating science and management for decision making). Northern Arizona University's Julie Mueller will also moderate and speak at a session on water management's human dimensions. From beyond the universities, an entire session on "Arizona Programs and Projects to Address Future Colorado River Shortages" will feature speakers from Arizona agencies including CAP, the Arizona Water Banking Authority, and Arizona Department of Water Resources.

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## STEM Education Brings the Real World into the Classroom



This week, 20 Tucson educators explored the Colorado River from a supply and demand perspective (top left) and designed a piping system, taking into account friction loss, to deliver

reclaimed water to a local golf course (top right).

Classroom experiences came to life as teachers toured facilities across the Tucson region including Tucson Water's recharge basins that are used to manage our Colorado River allotment (bottom). This STEM Academy, in its fifth year, would not be possible without the support of Tucson Water and presenters from Central Arizona Project, Agua Nueva Water Reclamation, Pima SmartScape, and UA WEST laboratory. Similar professional development opportunities are occurring all summer across the state thanks to Arizona Project WET.



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## Arizona Well-Represented at the XVI World Water Congress

Every two years the International Water Resources Association (IWRA) hosts the World Water Congress. This year's Congress, "Bridging Science and Policy", held in Cancun, Mexico, May 29-June 3, 2017, aimed to bridge the disconnect between scientific knowledge and policy choices.



Arizona sent many participants. WRRC Director Sharon B. Megdal helped organize and presented at a three-part series, "Shared Waters in North America". The session brought together water analysts and officials from the three countries of North America to compare approaches to binational water cooperation. Arizona Department of Water Resources Director [Tom Buschatzke](#) addressed Colorado River system cooperation between the United States and Mexico. A team involved with sessions related to water security represented the Udall Center for Studies in Public Policy. In addition, during the poster session, Ph.D. candidate Elia Tapia Villaseñor presented a poster titled, "The Transboundary Aquifer Assessment Program and the San Pedro River Aquifer Binational Report for the United States and Mexico." From Arizona State University, Associate Law Professor Rhett Larson presented a talk relating to forestry management and water law.

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## Arizona Department of Environmental Quality Seeks Stakeholder Input and Data



On Wednesday, June 21, ADEQ will host a public meeting to begin the Triennial Review rulemaking process to modify Arizona's Surface Water Quality Standards. The meeting, which will solicit stakeholder input, develop stakeholder working groups, and develop a proposed rulemaking timeline, will take place from 2:00 to 4:00 pm at the ADEQ Headquarters, 1110 W. Washington Street in Phoenix.

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In addition, the ADEQ is currently seeking data for the Clean Water Act Assessment that determines the water quality status of Arizona lakes and streams by comparing all available credible data to surface water quality standards. ADEQ encourages and welcomes data from all sources, including private citizens, businesses, public agencies, state and federal governmental agencies, and non-profit organizations. ADEQ will verify each submittal and send an e-mail within seven days to verify that the submittal was accepted or to follow up with a request regarding missing or incorrect information.

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## Bureau of Reclamation Launches Two Prize Competitions

Can you design a better mobile app for water and environmental data collection? The Bureau of Reclamation, in collaboration with the U.S. Geological Survey, is seeking the development of an application framework to support electronic data collection and capture using mobile devices across a diverse range of data collection situations. Stage one seeks ideas for robust and efficient software architecture concepts and software technologies that would enable the desired app framework to be designed and function as intended. The prize is \$150,000

A second prize competition seeks ideas to protect steel structures from corrosion. This prize, offered in collaboration with the U.S. Army Corps of Engineers, U.S. Navy Facilities Engineering Command, and National Institute of Standards and Technology, is seeking ideas for long-term corrosion protection for steel structures such as hydroelectric penstock pipes and gates that control or divert water. Submitted ideas should protect the structure for 50 years with minimal maintenance and have a low cost of installation. Ideas for this \$75,000 prize must be submitted by September 5, 2017.



**\$75,000 in prize \$\$\$**



[usbr.gov/research/challenges/corrosion](http://usbr.gov/research/challenges/corrosion)



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**ANNOUNCEMENTS**

**SAVE THE DATE**  
MARCH 28, 2018

MARCH 26, 2016

WRRC CONFERENCE  
**THE BUSINESS  
OF WATER**

- [June 16 - ADEQ Water Shed Preservation Grant Workshop](#)
- [June 30 Call for Abstracts - AHS Symposium](#)
- [June 30 - WRRC Seeks Two Graduate Outreach Assistants](#)
- [August 18 Call for Abstracts - Southwest Groundwater Conference](#)
- [September 10-11 - AWRA 2017 International Conference Preliminary Program Available](#)
- [October 4-6, 2017 - 2017 Water Smart Innovations Conference - Registration is Now Open](#)

**WATER RESOURCES RESEARCH CENTER**

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