

WEEKLY WAVE



COLLEGE OF AGRICULTURE & LIFE SCIENCES
COOPERATIVE EXTENSION
**WATER RESOURCES
RESEARCH CENTER**

April 10, 2020 / Volume 8, Issue 14

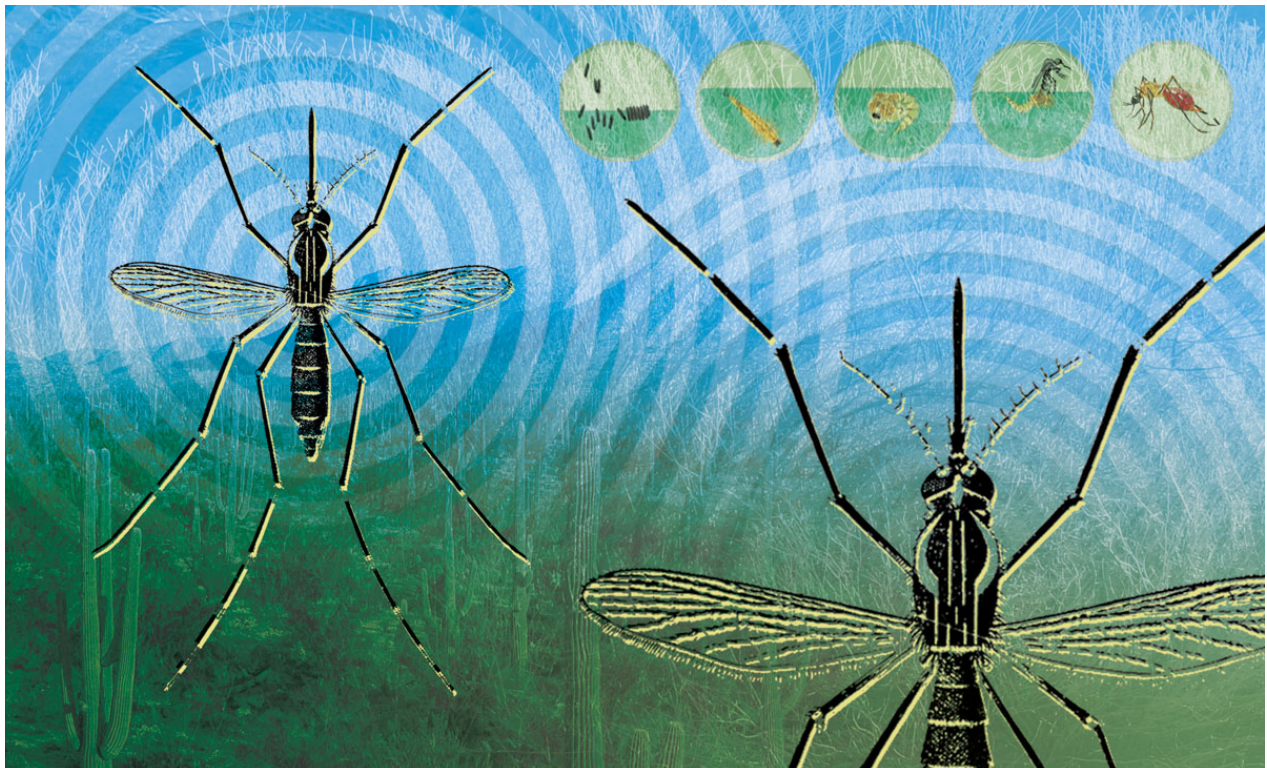
The Water Resource Research Center - a research unit of the [College of Agriculture and Life Sciences](#) and an Extension unit in [UA Cooperative Extension](#) within the Division of Agriculture, Life & Veterinary Sciences & Cooperative Extension

WRRC Office Update

Although the WRRC building will be closed to the public until further notice, our staff continue to work and engage as much as possible. You can reach us via email as listed on our [Directory](#). We wish you all the best - Stay safe and healthy!

UArizona Cooperative Extension [COVID-19 info page](#)

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Climate, Public Health, and Infectious Disease in the Sonoran Desert

Terms such as "flattening the curve," "disease vectors," and other discussions of epidemiology have become commonplace as COVID-19 has spread throughout our communities. As society is developing a renewed interest and appreciation for public health, Kacey Ernst, Associate Professor and Program Director of Epidemiology at the UArizona College of Public Health, gave a timely presentation on her work on infectious disease for a WRRRC Brown Bag Webinar on Wednesday, April 8. Ernst's presentation, entitled "Human-environment dynamics in the Sonoran Desert and *Ae. aegypti*, the vector of dengue, Zika, and chikungunya," detailed her research on the interplay between anthropogenic and environmental factors driving the abundance of *Ae. aegypti* mosquitos in our desert urban landscapes. Of particular interest, Ernst described research that uses regional temperature, humidity, and precipitation data to predict local *Ae. aegypti* abundance and estimate how these conditions affect disease transmission. In the future, these models can be incorporated into early warning systems that promotes public awareness and action with location-specific alerts such as "Only two days left before mosquitos in your area will hatch. Take action now to eliminate standing water."

View the entire presentation [here](#).

WRRRC EVENTS

Brown Bag **Webinar Only** - Student Research on Water Resource Science Monitoring and Methods

April 16, 2020 / 12:00pm to 1:15pm

Speakers:

- **Nat Bransky**, MS Student, Environmental Sciences and Policy Program, Northern Arizona University
- **Sean Schrag-Toso**, MS Student, Hydrology and Atmospheric Science and Water Policy Certificate Program, University of Arizona
- **Christopher Yazzie**, PhD Student, Chemical and Environmental Engineering, University of Arizona



Location: Via Webinar

Presentations:

- Monitoring Tamarix Defoliation and Mortality from *D. carinulata* Attacks Using Satellite Imagery in Grand Canyon National Park, Arizona, USA
- Isotopes, Geochemistry, Citizen Science, and Local Partnerships as Tools to Build Upon a Fractured Understanding of the Hydrology of the Patagonia Mountains
- Solar Nanofiltration for Off-grid Water Purification in Navajo Nation

[More Info](#)
[Webinar Registration](#)



Upcoming Brown Bag Webinars

April 29 - Marie Pearthree, Mike McGuire, Tucson Water Turnaround: Crisis to Success

WRRRC NEWS

Appreciation Week Must Go On: Virtual Recognition of Arizona Water Professionals



Guest Authors: *Juliet McKenna, P.G., Principal Hydrogeologist, Montgomery & Associates; Arturo Gabaldon, President, Community Water Company of Green Valley; Rosanna Gabaldón, AZ State Representative, Legislative District 2; Bob Hollander, Environmental Resources Manager, Water Services Department, City of Peoria; Crystal Thompson, Communications Manager, Central Arizona Project; and Sheri Trapp, Communications Specialist, AMWUA*

Arizona residents certainly know the value of water. Professionals in the water industry understand that protecting and managing Arizona's water supplies are essential to the state's future, which requires an educated and well-trained workforce. The thousands of professionals in the water industry include engineers, hydrologists, hydrogeologists, water and wastewater operators, biologists, and experts on policy, economics, business administration, law, and communications. These water professionals are on the front lines, providing and ensuring safe and reliable water for Arizona. For the second year, Arizonans will honor the work and dedication of professionals in the water industry during Arizona Water Professionals Appreciation Week, officially designated by the Arizona House of Representatives as April 12 - 19, 2020.

Read the full article [here](#)

University of Arizona Researchers Monitor Coronavirus in Municipal Wastewater Throughout the U.S.

As the spread of the new coronavirus continues, researchers at the University of Arizona Water and Energy Sustainable Technology (WEST) Center are using municipal wastewater to monitor the incidence of the virus in communities across the United States. An earlier study conducted in 2008 by WEST Center researchers measured the survival of coronaviruses in wastewater, and found that coronaviruses die off very rapidly in wastewater, with a 99.9% reduction in two to three days. WEST Center researchers will bring this expertise to the new study, which will use molecular methods recommended by the CDC to detect SARS-CoV-2 genetic markers in sewage samples collected prior to and following wastewater treatment. Such sewage monitoring programs can result in valuable data to determine if the virus is present in a community, even if individuals are asymptomatic, and can also ensure the effectiveness of a municipality's wastewater treatment process.

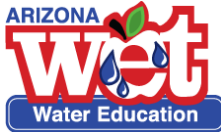


- More on this cutting edge research at the [WEST Center](#).
- Similar studies are also being conducted at [Stanford](#)

University and in the Netherlands.

- For more information on worldwide coronavirus monitoring through [sewage and wastewater monitoring](#).

Bringing the Arizona Water Festival to You!



Quarantine and social distancing won't stop Arizona Project WET from bringing our programs directly to students and teachers! With events being canceled and classes going online, our team is

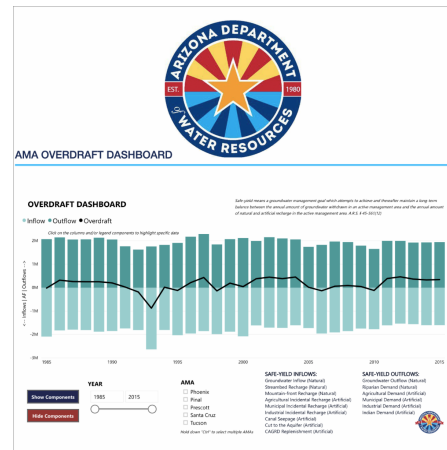
currently developing components of the Arizona Water Festival (AWF) event-day lessons so that today's fourth graders don't miss out. These include videos of facilitated lesson components covering each AWF field day station: Watersheds and Watershed Management, Water Conservation Technology, the Groundwater System, and the Water Cycle. Our Educators will facilitate students' learning using models and inquiry, translating what we do in the field to the web! Teachers will be given an assessment tool for each of the content areas so they can track their students' learning. All AWF components will go live on our YouTube channel on April 20! Please stay tuned by following our Instagram, Facebook, and Twitter for updates.



APW

Improved Access to ADWR Data Now Online

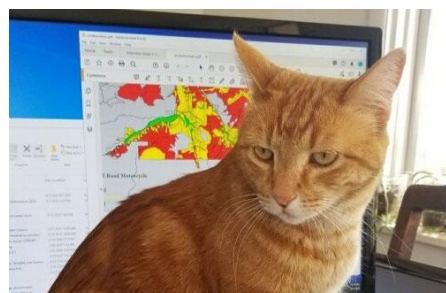
Since 2008, The Arizona Department of Water Resources (ADWR) has been working on a tool to make its data more accessible and understandable to the public. The agency recently announced that the tool has been implemented for some of the many data sets it has collected and compiled since 1980. An improved online interface makes access to data easier and visualization software has allowed ADWR to create graphic representations of some data sets. An outstanding example shows water supply and demand in the [Active Management Areas](#). Another example is a set of charts depicting water stored in [groundwater recharge and savings facilities](#) (scroll to the bottom of the page). The effort is ongoing, so look for more developments in the future.



ADWR Press Release



Welcome to the launch of our new segment, Coworker of the Week, in which we highlight the pets that are interrupting Zoom meetings and/or sleeping at our feet as we work from home. This week's coworker shares a workspace with WRRC Research Analyst Ashley Hullinger. Meet Lucy: she's an orange tabby who enjoys



purring, being aloof, and eating cat food. We applaud you, Lucy. Thanks for making Ashley's workplace simply purrfect.



ANNOUNCEMENTS



- [Awards and Scholarships - AWRA](#)
- [FEWSION COVID-19 Press Release, March 26th, 2020 - Empty shelves not an indicator of a broken supply chain: Big data maps out critical U.S. supply chains amid COVID-19 pandemic and Crisis Briefing for Media and Decision Makers](#)
- [The Climate Assessment for the Southwest, U.S. Global Change Research Program Newsletter - March 2020](#)
- [February 24-June 6 \(Various Dates\): ADWR 5th Management Plans Working Groups - Monday, April 6 meeting CANCELED. To be Held Virtually: Various Dates Monday, April 20-Thursday, June 4](#)
- [April 1-3: BSMAR 17 Symposium - POSTPONED: New Dates Oct. 7-9](#)
- [April 10: UCOWR/NIWR 2020 Annual Conference - Early Bird Registration Ends](#)
- [April 20: Water International - New Call for Early-Career Professionals - Abstract Submission Deadline](#)
- [April 21: Boulder Faculty Climate Science and Education Committee - The Climate and Biodiversity Crisis: Moving Toward a Global Awakening?](#)
- [April 27-28: 2020 National Water Policy Fly-In \(Water Week 2020\) - CANCELED: April 27-28; Water Week Continues as a Virtual Event April 26-May 2](#)
- [May 11-12: Ben-Gurion University of the Negev International Water Summit - Registration Open - POSTPONED](#)
- [May 14-15: Western Water Law Conference San Diego - POSTPONED](#)
- [May 18: Call for nomination for IWA Women in Water Award](#)
- [May 18: AWRA Annual Water Resources Conference, Nov. 9-12 - Abstracts Due](#)
- [June 1: Central Arizona Project Award for Water Research - Abstracts Due](#)
- [June 1: NWRI Fellowship Deadline Extended](#)
- [June 4-5: Law Seminars International Conference - Tribal Water in the Southwest](#)
- [June 14-17: ACE20 Future So Bright - Registration Open](#)

Visit Our Website