WEEKLY WAVE

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

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The Water Resources 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. Subscribe to the Summer Wave.

WRRC Office Update

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IN THIS ISSUE:
Conference Agenda, Rain Log, Western Lakes, APW, WOTUS, Colorado River

Exciting Updates to the WRRC Conference Agenda

As drought, extreme heat, and wildfires plague the West, the ability of our communities to withstand and/or adapt to water stresses—their water resilience—is in question. The water practices and perspectives of Arizona's Native Nations provide insights into developing pathways toward a more sustainable and resilient future. *Tribal Water Resilience in a Changing Environment*, the focus of the University of Arizona Water Resources Research Center's 2021 annual conference, offers an engaging **agenda** on these complex, multidimensional, and multigenerational matters.

Read More

WRRC EVENTS

WRRC 2021 Annual Conference: *Tribal Water Resilience in a Changing Environment*

Dates: Aug 30-Sep 1
Location: Zoom

REGISTRATION OPEN!
Presented virtually over three days, August 30-September 1, the conference program will offer information, diverse perspectives, new voices, and much more. The conference will kick off with an afternoon session (1-4 PM Arizona time) on Monday, August 30, followed by morning sessions (8-11 AM Arizona time) on Tuesday, August 31, and Wednesday, September 1. In addition, special conference activities will be scheduled for Tuesday afternoon.

Visit our conference **webpage** for updates on the agenda and additional information, including how to become a conference sponsor! Please feel free to post and share this registration announcement to help us get the word out. We hope you will join us!

Register Here

OTHER EVENTS

29th Annual Arizona Water Law Conference
Dates: Aug 26-27

NEWS

Finally, Some Rain!

With an almost audible sigh of relief, the monsoon rains bring life to Arizona's forests, grasslands, and deserts. In July, Tucson received over eight inches of rain, a record for the city and two-thirds of the average amount received in an entire year. While the dark clouds, thunder, lightning, creosote-scented wind, and much-needed rainfall are all causes for celebration, the intensity of these monsoon storms has also brought dangerous flash floods and debris flows to watersheds across the state. Despite the substantial rainfall, underlying drought conditions persist. A recent Arizona

Department of Water Resources (ADWR) article puts the precipitation into perspective. In terms of long-term drought, ADWR's Chief Hydrologist Jeff Inwood says that the rains are helpful but they do not "solve the problem." According to the article, "Fending off drought – especially the kind of long-running drought the Southwest has experienced – takes deep winter snowpack in the region's mountainous watersheds." The article continues to point out that it would take several consecutive years of deep snowpack to bring the region out of the drought. Even so, the monsoon rains deserve celebration. One way to celebrate is through the Rainlog.org cooperative rainfall monitoring network. Developed at UArizona by an NSF-sponsored UArizona hydrology program and Cooperative Extension, the project allows the public to record local rainfall data that can be used in research and drought planning.

Image: Lightning in the Sonoran Desert, Arizona Geological Survey

ADWR Article
Rainlog.org

Largest Western Lakes Shrink to Record Lows

Water levels at the Great Salt Lake, Lake Mead, and Lake Powell fell to record lows in July. Persistent drought conditions throughout the West are especially dire in Utah, where the US Drought Monitor indicates that nearly 100% percent of the state is experiencing the two most severe drought levels. According to the Utah Department of Natural Resources, the drought has accelerated the Great Salt Lake's gradual decline over the years, from an all-time high of 4,211.65 feet in 1986. On July 24, the US Geological Survey announced that average daily lake levels had decreased to about one inch below the 1963 record of 4,191.4 feet. The drop from the lake's historic average elevation to the July 24 level is about eight and a half feet, which translates to a lake area loss of about 44 percent.

The country's largest reservoir, Lake Mead, had fallen to 1,067 feet in elevation as of July 23—its lowest level since Colorado River water started filling the lake in the 1930s. The water level is expected to drop to 1,064 feet by the end of the year. By the end of 2022, it is forecast to drop even further to 1,047 feet. Lake Powell, the second-largest reservoir in the US, saw its water level fall to 3,554.51 feet, which is 0.6 feet below the record low set in April 2005. WRRC Director Sharon B. Megdal, who was quoted in a Washington Post article on western lake levels, stated that the record lows of Mead and Powell indicate "water users throughout the Colorado River Basin … must prepare for lower Colorado River water deliveries over an extended period of time."

Read More

ARIZONA PROJECT WET

Exploring the Colorado River with STEM

I sincerely appreciate the planning behind the hands-on activities, digital activities, readings, and videos, mixed with a guest speaker and instruction. The presenters combined these activities very well to keep online learners engaged. Thank you! These are the words of a

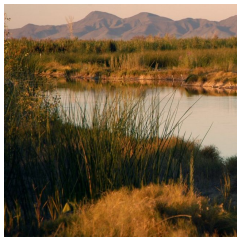
teacher-participant in this year's ***Explore the Colorado River STEM Academy***, held on June 1-2**.**

Arizona Project WET, with support from CAP, has been engaging teachers and students in a compelling story about water resources management for the past 19 years. Our first teacher professional development academy of the summer, this event was focused on the Colorado River watershed and the CAP.

Teachers developed and used models to identify parts of the regional water cycle and regional watershed; used a model and mathematical thinking to identify the inputs and outputs in the Colorado River system; constructed explanations and designed solutions for water management and distribution; analyzed and interpreted tree ring data to relate past and future streamflow; and engaged with evidence about past, present, and future management of the Colorado River. Read more in the **Know Your Water News**.

Image: Colorado River at Navajo Bridge, Kerry Schwartz

Public Input Sought for New WOTUS Rule

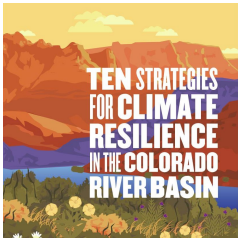


On June 9, the Environmental Protection Agency (EPA) and US Army Corps of Engineers (USACE) announced their intent to redefine "Waters of the United States" (WOTUS) under the Clean Water Act of 1972 (CWA). The cornerstone of water pollution regulation in US law, the CWA authorizes EPA to regulate certain waters of the United States. The WOTUS has been redefined by each of the last two presidents, and according to a press release from the agencies, the intent of this latest revision effort is to establish a "durable definition" based on court precedent, lessons learned from previous rulemakings, and stakeholder input. To that end, the EPA and USACE are holding a series of meetings (August 25, 26, and 31) to gather input from the public. In addition to the meetings, the agencies will be accepting written recommendations from the public until the docket closes on September 3.

Image: Yuma East Wetlands, Yuma Crossing National Heritage Area

Joint Press Release
EPA Announcement and Meeting Info

Ten Strategies for Climate Resilience



A new report, written by Martin & McCoy and Culp & Kelly, LLP, with contributions from seven environmental non-profit organizations, seeks to provide pathways to climate resilience in the face of historic drought and climate change. The report, *Ten Strategies for Climate Resilience in the Colorado River Basin*, examines a range of strategies, from well-established to theoretical, each intended to assist the Basin's climate resilience by adapting to climate shifts, reducing pressure on existing water supplies, mitigating climate change, and strengthening economic resilience in communities. The report also explores the necessary steps to move the ten strategies forward in the short term, such as demonstration projects and investments, supportive financing, and research to observe and track project performance. According to Kevin Moran, Senior Director of the Colorado River Program at the Environmental Defense Fund, the report responds to the need for additional approaches "to help our communities directly and holistically tackle the risks of climate change to the Colorado River – and the economies, communities, and

ecosystems that rely on it. The strategies outlined in this report represent our best means of building resilience and staving off the worst effects of the devastating climate crisis."

View the Report

WATER JOBS

WRRC ADEQ **Database Student Assistant**
The WRRC seeks applicants for a student hourly position that will be overseen by WRRC staff in close collaboration with ADEQ and the College of Agriculture and Life Sciences (CALS) Cyber Communications and Technologies (CCT). This position will start in September 2021 and continue through the end of the Spring 2022 semester, with possible extension depending on funding.

- AMWUA **Water Policy Analyst**
- WWA **Colorado/Wyoming Research Integration Specialist**

Please visit **WRRC's website** for a complete listing of water jobs & opportunities.

ANNOUNCEMENTS

- **Aug 20:** AIWW 2021– Abstract Deadline
- **Aug 23:** AGU Fall Meeting – Registration Opens
- **Aug 26:** ADEQ Surface Water Protection Program Kick-Off Meeting
- **Aug 26-27:** 29th Annual Arizona Water Law Conference
- **Aug 30:** AZ Water: *Colorado River Water Supply Update*
- **Aug 30-Sep 1:** WRRC 2021 Annual Conference, *Tribal Water Resilience in a Changing Environment*
- **Sep 3:** 2022 Arizona Water Protection Fund – Grant Application Deadline
- **Sep 13-15:** GRA 4th Annual Western Groundwater Congress
- **Sep 14-15:** Texas Desal 2021 Virtual Conference
- **Sep 15-17:** 2021 AHS Symposium - Early Bird Registration Ends Aug 16
- **Sep 27-29:** 2021 GWPC Annual Forum
- **Oct 20-21:** The Third International Congress on Desert Economy: *Energy Economics between Deserts and Oceans* (Dakhla, Morocco)
- **Oct 21:** *Imagine a Day Without Water*
- **Nov 1-5:** AIWW 2021: *Connect & Act to Make Water Work*
- **Nov 8-10:** AWRA 2021 Annual Water Resources Conference
- **Apr 11-15, 2022:** 11th International Symposium on Managed Aquifer Recharge
- **Apr 24-27, 2022:** AWRA 2022 Spring Conference: *Water Risk Under a Rapidly Changing World - Evaluation & Adaptation*
- **Jun 14-16, 2022:** UCOWR 2022 Annual Water Resources Conference
- **Sep 11-15, 2022:** IWA World Water Congress & Exhibition - *Water for Smart Liveable Cities* (Copenhagen)

PUBLICATIONS & MEDIA

Martin & McCoy and Culp & Kelly LLP. (2021). *Ten Strategies for Climate Resilience in the Colorado River Basin*.

ADEQ 2021 Legislative Session Summary

Do you have a story idea, water job announcement, or event to share?
Contact us here

Visit our Website