



February 4, 2022 / Volume 10, Issue 5 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 Weekly Wave.

WRRC Office Update

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By Michael Seronde, WRRC Program Manager

During the winter months, as much as 70% of the leafy greens found in grocery stores are grown within 100 miles of Yuma, AZ. At the end of January, I traveled to Yuma with my peers in Class 30 of Arizona Project CENTRL to gain a better understanding of some of the challenges facing this important agricultural region. We saw firsthand what goes into getting Yuma area-grown produce into homes across the US and Canada. Our experience is focused on water, labor, and border issues; all interconnected with the region's agriculture.

Image: Produce Fields in Yuma, AZ, Michael Seronde

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EVENTS

Brown Bag Webinar: All In: Confronting Southern Nevada's New Water Reality

Date: February 15, 2022 Time: 12:00-1:15 pm Arizona Time Location: <u>Webinar Only</u>

Speaker: Colby Pellegrino, *Deputy General Manager, Resources, Southern Nevada Water Authority*



Due to prolonged drought, overall snowfall and runoff into the Colorado River Basin are at all-time lows, resulting in the combined water storage in the river's two primary reservoirs —Lakes Powell and Mead—dropping to just 32 percent of capacity. The Secretary of the Interior recently announced the first-ever shortage declaration, reducing the availability of Colorado River supplies to Nevada in 2022. Projections indicate that Lake Mead water levels will continue to decline, and the likelihood of shortage remains high in future years.

Given current hydrologic conditions, water conservation remains a critical component of Southern Nevada's water resource portfolio. While the community has significantly reduced per capita water demands, additional work is required to reduce consumptive use to meet current and future water demands in Southern Nevada.

<u>Register Here</u> <u>More Info</u>

WRRC Chocolate Fest 2022

Date: February 16, 2022 Time: 4:00-5:00 pm Arizona Time Location: <u>Webinar Only</u>

Please join us from 4:00-5:00 pm MST on Wednesday, February 16 for the WRRC's Annual Chocolate Fest! This two-



part virtual program of celebration will include announcement of our 2021 Annual Photo Contest winners! Following a slide show of the winning images, we will make a chocolaty toast to our Director, Sharon B. Megdal, who on Valentine's Day (Arizona Statehood Day!) celebrates 20 years at the WRRC. Raise high a divine chocolate delectation as we acknowledge her time at the Water Center and, of course, hear a few comments on chocolate (not water!). So, bake, concoct, purchase, or brew your favorite treat and spend an hour with new and old friends at this annual WRRC event. We are looking forward to seeing you there!

Register Here

Upcoming Events

Mar 15: Brown Bag Webinar: Rio Reimagined: Reconnecting the Salt River With the Valley's Metropolitan Communities

April 7: Brown Bag Webinar: Public Interest, Indigenous Rights, and the Los Angeles Aqueduct; Sophia Borgias, *Assistant Professor, Interdisciplinary Programs, Boise State University*

Apr 19: Brown Bag Webinar: Carlos de la Parra, *Research Professor of Urban and Environmental Studies, El Colegio de la Frontera Norte*

NEWS

Colorado River Compact Turns 100!

This year, the Colorado River Compact of 1922 celebrates its centennial. The Compact is considered the cornerstone for the laws and policies that govern the use of the Colorado River. As the Compact reaches this milestone, domestic and international negotiations over the river's management framework are on the horizon, with the current management framework expiring in 2026.



In 100 years, the Colorado River Basin has changed dramatically. The population supported by the river has grown and climate change has impacted the mountain and desert environments throughout the basin. The centennial comes on the heels of last year's historic <u>Tier One Shortage Declaration</u> and over two decades of drought. As the Compact enters its second century, science and policy will once again intersect as decision-makers prepare for the reality of current climate conditions and a world that the original authors of the Compact likely never imagined. To celebrate this milestone and look to the future, the University of Utah's S.J. Quinney College of Law is hosting a conference later this spring to discuss the future of the Compact. *The Colorado River Compact: Navigating the Future* will discuss the "Law of the River" and the future of management for the Colorado River system. The conference will be co-hosted by the Wallace Stegner Center for Land, Resources, and the Environment and the Water & Tribes Initiative. The event will be held both virtually and in person on March 17-18 from 8:00 am to 5:00 pm MST. Tickets range from \$20-\$125.

Image: ADWR

More Info and Registration

CAP Releases New Visual Water Allocations Map

The Central Arizona Project (CAP) has released a new interactive map of its water allocations. By navigating the online map, users can view information about the CAP service area and its contracts, such as how much water an area receives, allocation priority, and contract number. The map also features a



search function, allowing one to easily search for a specific user within the CAP system, as well as find information for users located outside of CAP's service area. As a tool to visually explore CAP and learn more about water allocations in AZ, the map pairs well with other data available from CAP.

CAP Allocations Map



Forest Health Friday Video Series Released

Happy Forest Health Friday! These words greeted visitors on social media each Friday this past January as Arizona Project WET (APW) shared new videos from their just-released "Healthy



Forest Healthy Watershed" video series. Launched by APW's Coconino County program, these videos provide insight into a healthy forest ecosystem, the role of biodiversity in the forest, the need for forest restoration, and forest and watershed health in AZ. All four videos and related 2nd through 5th-grade curriculum were developed through the generous sponsorship of the Arizona Department of Forestry and Fire Management, the US Forest Service, and Flagstaff City Government.

Forests, Fires, and Floods Videos

Water-Focused Faculty Receive UArizona Awards

The University of Arizona has announced its 2021 Outstanding Faculty Awards and several water-focused faculty have been honored. The awards recognize individuals who have made "lasting contributions to the common good in our community, nation, and world." Professor Ian Pepper, whose work tracing COVID-19 infections through wastewater made national news,



was named a 2021 Regents Professor. He joins that honored community with other luminaries that have climate research programs related to water resources: 2020 National Academy of Sciences Member and Regents Professor Diana Liverman and 2020 Regents Professor Connie Woodhouse. Associate Professor Karletta Chief was named 2021 Distinguished Outreach Professor for her groundbreaking work with Native Nations. Hydrology and Atmospheric Sciences Assistant Professor Laura Condon, who gave a very well-received Brown Bag webinar in December 2019, was recognized as a 2021 Early Career Scholar. Congratulations to our water community colleagues, as well as all the other 2021 UArizona honorees.

2021 Faculty Awards

Researchers Repurpose Kombucha for Water Filtration

A recent study by Katherine Zodrow, a researcher at Montana Technological University, and colleagues found that a symbiotic culture of bacteria and yeast (SCOBY) can be used to make a living film for filtering water. A SCOBY is a living membrane that is used to ferment tea in the making of the kombucha drink. The researchers cultivated a kombucha SCOBY by using sugar, black tea, distilled white vinegar, and water. It turns out that SCOBYs can be used for more than fermentation and may have a future in water treatment. Made of permeable bacterial cellulose, these living membranes can be tuned to filter differentsized particles. Because SCOBYs are alive, the membranes heal themselves, fixing any damage they incur. SCOBYs contain a multitude of different microbes, many of which have promising properties in regard to filtration. Some belong to a family of microbes that produce acetic acid, which can kill bacteria—even those that secrete protective biofilms. This research has promising potential: a sustainable filter that can fix itself.



Read the Study



- WRRC Postdoctoral Research Associate
- Montana DNRC <u>Water Rights and Adjudication Bureau Chief</u>
- City of Peoria Water Resources Policy Analyst
- Pima County Program Coordinator (Environmental Education)
- River Network Program Manager (Healthy Rivers)
- · Sonoran Institute Program Manager (Growing Water Smart)
- WestWater Research 2022 Summer Associates Internship
- Babbitt Center Native American Water & Land Intern
- Babbitt Center Sustainable Agricultural Water Futures Intern

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

ANNOUNCEMENTS

- Feb 4: <u>Fifth National Climate Assessment: SW Chapter Public Engagement</u> <u>Workshop</u>
- Feb 7: US Environmental Protection Agency and Army Corps of Engineers New Proposed Rule for Waters Protected Under CWA – Public Comments Deadline
- Feb 8: AHS Tucson Monthly Chapter Meeting: The Santa Cruz Heritage Project
 Impacts From the 2021 Monsoon
- Feb 10: EPAZ Webinar: Managed Aquifer Management in the Santa Cruz River
- Feb 10: <u>USIBWC Southeast Arizona Citizens Forum: Nogales Wastewater Pipeline</u> <u>Project and Effluent Recharge in Southern Arizona</u>
- Feb 15: <u>Spring 2022 UCOWR Roundtable Series</u>: <u>Utilizing Drones in Research –</u> <u>Email to RSVP</u>
- Feb 15: <u>WRRC Brown Bag Webinar</u>: <u>All In: Confronting Southern Nevada's New</u> <u>Water Reality</u>
- Feb 15: <u>Circle of Blue Fellowship Program: Reporting Water Inequality In A</u> <u>Changing Climate – Application Deadline</u>
- Feb 16: WRRC Chocolate Fest
- Feb 16: <u>GRACast: SGMA Implementation: Using an Integrated Hydrologic Model to</u> <u>Monitor and Manage Stream</u>

- Feb 20: <u>Water Science Policy Groundwater Photostory Competition Submission</u> <u>Deadline</u>
- Feb 21: AWRA 2022 Topical Sessions Deadline
- Feb 23: Free Webinar: Getting to the Heart of Science Communication
- Feb 28: <u>11th International Symposium on Managed Aquifer Recharge Early Bird</u> <u>Registration Deadline</u>
- Mar 1: <u>Babbitt Center for Land and Water Policy 2022 Dissertation Fellowships –</u> <u>Application Deadline</u>
- Mar 4: 2022 AHS Annual Symposium Abstract Deadline
- Mar 9: <u>Spring 2022 UCOWR Roundtable Series</u>: <u>Aquatic Invasive Species</u> <u>Email</u> to <u>RSVP</u>
- Mar 15: WRRC Brown Bag Webinar: *Rio Reimagined: Reconnecting the Salt River With the Valley's Metropolitan Communities* Save the Date
- Mar 17-18: The Colorado River Compact: Navigating the Future
- Mar 22: World Water Day 2022
- Mar 22-24: Expo 2020 Dubai, Water Resources Management and Sustainability: Solutions for Arid Regions
- Mar 24-25: Santa Cruz River Research Days
- Mar 31: Los Charros Foundation Scholarship Application Deadline
- Apr 6: <u>Udall Center Workshop</u>: <u>State of the Art in Green Infrastructure Research &</u> <u>Practice: Reframing Stormwater from a Hazard to a Resource in Tucson, Arizona</u>
- April 7: WRRC Brown Bag Webinar: *Public Interest, Indigenous Rights, and the Los Angeles Aqueduct* Save the Date
- Apr 11-15: <u>11^{th'} International Symposium on Managed Aquifer Recharge</u>
- Apr 11-17: <u>Arizona Water Professionals Appreciation Week</u>
- Apr 12-14: <u>AZ Water 95th Annual Conference & Exhibition</u>
- Apr 15: <u>Fall 2022 Agents of Change in Environmental Justice Fellowship –</u> <u>Application Deadline</u>
- Apr 19: WRRC Brown Bag Webinar: Carlos de la Parra Save the Date
- Apr 20: <u>Spring 2022 UCOWR Roundtable Series</u>: <u>Coastal Water Issues II Email</u> to RSVP
- Apr 22: Earth Day 2022 Lower Salt River Cleanup
- Apr 25-27: <u>AWRA 2022 Spring Conference: Water Risk Under a Rapidly Changing</u> <u>World - Evaluation & Adaptation</u>
- May 11-12: <u>The Third International Congress on Desert Economy: Energy</u> <u>Economics between Deserts and Oceans (Dakhla, Morocco)</u>
- Jun 14-16: UCOWR/NIWR 2022 Annual Water Resources Conference
- Jun 19-24: Frontiers in Hydrology 2022: Future of Water
- Jun 21-24: <u>Global Council for Science and the Environment (GCSE) 2022 Virtual</u> <u>Conference: *Biodiversity, Conservation Science, and Climate Change*</u>
- Sep 11-14: AWWA 2022 Water Infrastructure Conference & Exposition
- Sep 11-15: <u>IWA World Water Congress & Exhibition Water for Smart Liveable</u> <u>Cities (Copenhagen)</u>
- Sep 14-16: 2022 AHS Annual Symposium
- Oct 6-8: <u>SustainValencia2022; Achieving Sustainable Groundwater Management:</u> <u>Promising Directions and Unresolved Challenges – Save the Date</u>
- Nov 7-9: <u>AWRA 2022</u>

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