

WEEKLY WAVE



COLLEGE OF AGRICULTURE & LIFE SCIENCES
COOPERATIVE EXTENSION

**WATER RESOURCES
RESEARCH CENTER**



February 25, 2022 / Volume 10, Issue 8

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.](#)

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**USGS National Competitive Grant
Program Opportunity**

The WRRC is accepting proposals for the FY 2022 Water Resources Research National Competitive Grants Program (104g). Publication of the Request for Proposals by USGS is expected soon and will be announced in future *Weekly Wave* publications. These grants support research on water problems and issues of a regional or interstate nature. Any investigator at an institution of higher learning in the US is eligible to apply for a grant through a Water Research Institute or Center established under the Water Resources Research Act of 1984. The WRRC is the designated Water Resources Research Institute for Arizona. Proposals may be for projects of one to three years in duration and may request up to \$250,000 in federal funds. A 1:1 non-federal match is required. Proposals that include a USGS collaborator as a co-PI are encouraged. Submitting preproposals to the WRRC is the first step in the 104g grant application process. Proposals should be submitted by email to Program Manager Michael Seronde (seronde@arizona.edu) no later than **5:00 pm MST, Friday, April 8, 2022**. Funds have not yet been appropriated for this program for FY 2022 and the Government's obligation under this program is contingent upon the availability of funds.

Image: Grand Canyon, Lauren Hixson, WRRC Photo Contest

[More Info and Updates](#)

EVENTS

Native Voices in STEM Spring 2022 Seminar Series: Wastewater-Based Epidemiology in Tribal Communities

Date: March 14, 2022

Time: 3:00-4:00 pm Arizona Time

Location: [Webinar Only](#)

Speaker: Otakuye Conroy-Ben, *Assistant Professor in the School of Sustainable Engineering and the Built Environment at Arizona State University*



Dr. Otakuye Conroy-Ben is an Assistant Professor in the School of Sustainable Engineering and the Built Environment at Arizona State University. Conroy-Ben received a BS in Chemistry from the University of Notre Dame and an MA in Analytical Chemistry and PhD in Environmental Engineering from the University of Arizona. Her research focuses on the biological effects of polluted water. Her research interests include environmental endocrine disruption, metal and antibiotic resistance in bacteria, and wastewater epidemiology.

[Zoom Link](#)

Upcoming Events

Mar 29: [WRRC Brown Bag Webinar: Upper Basin Conservation](#); Jennifer Gimbel, *Interim Director and Senior Water Policy Scholar, Colorado Water Center*; Jim Lochhead, *CEO/Manager, Denver Water*; Steve Wolff, *General Manager, Southwestern Water Conservation District*

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

Apr 11: [Native Voices in STEM Spring 2022 Seminar Series: Environmental Justice](#); Tommy Rock, *PhD in Earth Science and Environmental Sustainability, Northern Arizona University*

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

Apr 27: WRRC Brown Bag Webinar: Sharon Nappier, *National Program Leader for Water Reuse, US Environmental Protection Agency - Office of Water*

NEWS

New Student Worker Joins WRRC

The WRRC is pleased to welcome Garland Speight to our team as a new student worker. Garland is pursuing a master's degree in Water, Society and Policy through the UArizona School of Natural Resources and the Environment. He is a UArizona alumnus and received an undergraduate degree in Mechanical Engineering. Following Garland's graduation, he worked as a nuclear engineer on spent nuclear fuel disposal and steam plant equipment development. More recently, he has worked to develop water processing technologies for the International Space Station as an aerospace engineer. Garland is a native of Arizona and loves spending time with his dog, hiking, camping, reading, and baking. He is excited to bring his passion to learn more about water issues and arid lands to the WRRC and will assist with planning the 2022 WRRC conference, writing *Weekly Wave* articles, and providing general assistance to the Water RAPIDS program.



Former WRRC Graduate Research Associate Joins AWBA

Rebecca Bernat recently joined the Arizona Water Banking Authority (AWBA) as a new technical administrator and water resources specialist associate. Bernat assists AWBA Director Virginia O'Connell in compiling, analyzing, and interpreting water use data and hydrologic modeling results to develop AWBA planning projections; developing annual operating plans in collaboration with other governmental organizations and public and private entities; presenting analyses and results to AWBA Commission members, other agencies, and public forums; and ensuring compliance with statutory and permitting requirements. Bernat recently received her PhD in Environmental Science (with a minor in Water, Society and Policy) from the University of Arizona's Department of Environmental Science. She studied under the supervision of WRRC Director Sharon B. Megdal. Her dissertation research focused on three aspects of managed aquifer recharge: the Central Arizona Groundwater Replenishment District, the reuse of effluent, and market-based transactions of long-term storage credits. Bernat worked for two year-long stints at the WRRC. From 2015-2016, she worked as a graduate research assistant conducting research on managed aquifer recharge and writing, editing, and publishing stories for the *Weekly Wave*, and from 2020-2021, she worked as a graduate research associate conducting research on water federalism while also contributing stories for the *Weekly Wave*.



NVIS Seminar Series Continues with Dr. Cherie DeVore

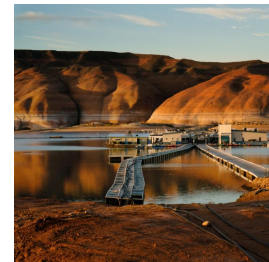


The Spring 2022 Native Voices in STEM (NVIS) seminar series, sponsored by Indige-FEWSS and co-sponsored by the WRRRC, continued on February 14 with a presentation by Dr. Cherie DeVore titled, "Mining and Wildfires Alter Metal Mobilization: Restorative & Mechanistic Insights." DeVore is Diné and a post-doctoral research fellow in Earth Systems at Stanford University.

She began the presentation by discussing how her family and background as an Indigenous woman have informed her approach as an investigator. She contextualized this experience within the River Continuum model. In this model, fundamental science, Indigenous knowledge, and Diné philosophy form the headwaters of the scientific river. These ideas combine with research, experiments, and practical application in the middle reaches, culminating in social and environmental justice in the lower reaches. DeVore illustrated this approach through her work characterizing arsenic mobility in the Cheyenne River Sioux Tribe region downstream from mine sites and wildfire-generated toxins. She ended her presentation by reiterating that scientific progress demands "multiple ways of knowing" and said that asking questions that spoke to restoration was the power in her own pathway as an investigator. She encouraged Native students and all others to consider their headwaters, examine their tools, and identify the stories they want to tell.

[More Info on the NVIS Series](#)
[NVIS Seminar Archive](#)

Study Finds Current Drought Conditions to be Worst in 1200 Years



Anyone living in the Southwest is well-aware that the region has been facing extended drought. The period since 2000 has been deemed a megadrought, and experts predict conditions will continue to worsen due to climate change. The region has experienced cycles of drought for centuries, but a new study published in *Nature Climate Change* has found that the Western US and Northern Mexico are experiencing the worst drought conditions in 1200 years. The study was led by UCLA Hydroclimatologist and Associate Professor of Geography Park Williams. Williams spoke with NPR about the study, noting that "it really is time for us to get real about how much water there is to use." The study attributes some of the severity of the drought to climate change. Speaking with the New York Times, Williams explained that in the absence of climate change, the current drought "would have been only about 60 percent" of the severity seen today. In a KJZZ interview about the study and what it says about the future of Arizona, WRRRC Director Sharon B. Megdal noted that in AZ, "we know that we have to plan appropriately for our future, and water is a big component of that." She emphasized that while there is uncertainty over which solutions will be used to address the problem, AZ has no shortage of potential solutions.

Image: Lake Powell, Claire Harbage/NPR

- [Nature Climate Change Study](#)
- [NPR Story](#)
- [New York Times Article](#)

- [KJZZ Interview](#)

SPECIAL ANNOUNCEMENT

March 1 Deadline for Research Proposals

Faculty and research personnel at any of Arizona's three public universities are invited to submit research proposals to the WRRC for grants of up to \$10,000. Proposals should feature student work and explore new ideas to address water problems in AZ and the Southwest and expand understanding of water and related phenomena. Proposals are due by 5:00 pm MST on Tuesday, March 1, 2022.



[More Information](#)

WATER JOBS

UArizona Director, Cooperative Extension [Job Listing](#)

The University of Arizona seeks a strategic and innovative leader to be the next Director of the [UArizona Cooperative Extension System \(CES\)](#).

- ADEQ [Project Manager \(TMDLS & Watershed Plans\)](#)

Please visit [WRRC's website](#) for a complete listing of water jobs & opportunities.

ANNOUNCEMENTS

- **Feb 25:** [Circle of Blue Fellowship Program: *Reporting Water Inequality In A Changing Climate* – Application Deadline](#)
- **Feb 28:** [11th International Symposium on Managed Aquifer Recharge – Early Bird Registration Deadline](#)
- **Mar 1:** [Water Resources Research Institute Program 104\(b\) Student Grant – Proposal Deadline](#)
- **Mar 1:** [Babbitt Center for Land and Water Policy 2022 Dissertation Fellowships – Application Deadline](#)
- **Mar 2:** [AWRA 2022 Spring Conference: *Water Risk Under a Rapidly Changing World - Evaluation & Adaptation* – Early Bird Deadline](#)
- **Mar 3:** [ADWR 2022 Annual Report Virtual Open House](#)
- **Mar 4:** [2022 AHS Annual Symposium – Abstract Deadline](#)
- **Mar 9:** [Spring 2022 UCOWR Roundtable Series: *Aquatic Invasive Species* – Email to RSVP](#)
- **Mar 14:** [Native Voices in STEM Spring 2022 Seminar Series Presents Dr. Otakuye Conroy-Ben](#)
- **Mar 16:** [El Día del Agua y la Atmósfera – Registration Deadline](#)
- **Mar 16-18:** [Water Education Foundation's Lower Colorado River Tour](#)
- **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 29:** [WRRC Brown Bag Webinar: Upper Basin Conservation](#)
- **Mar 31:** [Los Charros Foundation Scholarship – Application Deadline](#)
- **Apr 1:** [EPA Environmental Justice Video Challenge for Students – Phase 1 Submissions Due](#)
- **Apr 6:** [Udall Center Workshop: *State of the Art in Green Infrastructure Research & Practice: Reframing Stormwater from a Hazard to a Resource in Tucson, Arizona*](#)
- **April 7:** [WRRC Brown Bag Webinar: *Public Interest, Indigenous Rights, and the Los Angeles Aqueduct*](#)
- **Apr 11:** [Native Voices in STEM Spring 2022 Seminar Series Presents Dr. Thomas Rock \(*Diné*\)](#)
- **Apr 11-15:** [11th International Symposium on Managed Aquifer Recharge](#)
- **Apr 11-17:** [Arizona Water Professionals Appreciation Week](#)
- **Apr 12-14:** [AZ Water 95th Annual Conference & Exhibition](#)
- **Apr 15:** [Fall 2022 Agents of Change in Environmental Justice Fellowship – Application Deadline](#)
- **Apr 19:** [WRRC Brown Bag Webinar: Carlos de la Parra – Save the Date](#)
- **Apr 20:** [Spring 2022 UCOWR Roundtable Series: *Coastal Water Issues II* – Email to RSVP](#)
- **Apr 22:** [Earth Day 2022: *Invest in Our Planet*](#)
- **Apr 22:** [Earth Day 2022 Lower Salt River Cleanup](#)
- **Apr 25-27:** [AWRA 2022 Spring Conference: *Water Risk Under a Rapidly Changing World - Evaluation & Adaptation*](#)
- **Apr 27:** [WRRC Brown Bag Webinar: Sharon Nappier – Save the Date](#)
- **May 11-12:** [The Third International Congress on Desert Economy: *Energy Economics between Deserts and Oceans* \(Dakhla, Morocco\)](#)
- **May 19-20:** [23rd Annual Law of the Colorado River Conference](#)
- **Jun 14-16:** [UCOWR/NIWR 2022 Annual Water Resources Conference](#)
- **Jun 19-24:** [Frontiers in Hydrology 2022: *Future of Water*](#)
- **Jun 21-24:** [Global Council for Science and the Environment \(GCSE\) 2022 Virtual Conference: *Biodiversity, Conservation Science, and Climate Change*](#)
- **Sep 11-14:** [AWWA 2022 Water Infrastructure Conference & Exposition](#)
- **Sep 11-15:** [IWA World Water Congress & Exhibition - *Water for Smart Liveable Cities* \(Copenhagen\)](#)
- **Sep 14-16:** [2022 AHS Annual Symposium](#)
- **Oct 6-8:** [SustainValencia2022; *Achieving Sustainable Groundwater Management: Promising Directions and Unresolved Challenges*](#)
- **Nov 7-9:** [AWRA 2022](#)

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

[Contact us here](#)