

WEEKLY WAVE



COLLEGE OF AGRICULTURE & LIFE SCIENCES
COOPERATIVE EXTENSION

**WATER RESOURCES
RESEARCH CENTER**



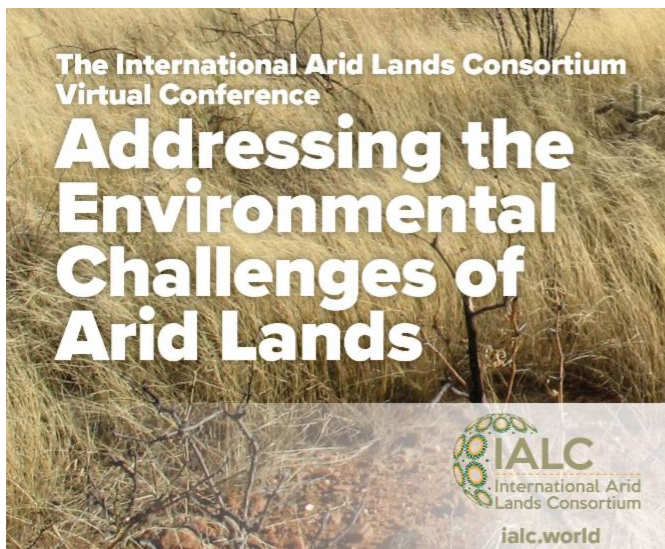
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The Water Resources Research Center - a research unit of the [College of Agriculture and Life Sciences](#) and an Extension unit in [UA Cooperative Extension](#) within the Division of Agriculture, Life & Veterinary Sciences & Cooperative Extension.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

[WRRRC Office Update](#)

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IN THIS ISSUE: IALC, WRRRC Internship, Clean Water, APW, Intel, Cobre Valley Survey



**HRH Prince
El Hassan bin Talal**

Prince Hassan currently chairs the High Level Forum for the Blue Peace Middle East Plan



Alon Tal

Alon Tal is a Professor in the Department of Public Policy at Tel Aviv University and Deputy Chair, KKL-JNF, Israel



Alexander L. Friend

Alexander L. Friend is Deputy Chief for Research and Development for the U.S. Forest Service, USA

Registration Open for International Arid Lands Conference

Registration for the International Arid Lands Consortium (IALC) Virtual Conference, *Addressing the Environmental Challenges of Arid Lands*, is now open and free! The three-day international conference, to be held 24-26 May 2021, commemorates 30 years of collaboration on arid lands issues. The program will celebrate IALC collaborative research and demonstration projects and examine current and future challenges in IALC's regions of focus. A key goal of the conference is to underscore the value of the IALC mission: promoting peace through collaborative research and demonstration projects in the arid lands of the world. Keynote presentations and panel discussions will emphasize the broader value of collaborative-multinational research and problem-solving to address issues that confront the sustainable use and management of arid lands globally. Graduate

students are encouraged to enter the [Lightning Talk](#) competition to share their creative contributions about conference themes.

[Free Registration](#)
[More Information](#)

EVENTS

Brown Bag Webinar - Binational Seawater Desalination Study - Sea of Cortez Region

Date: Thursday, Apr 8, 2021
Time: 12:00 pm-1:15 pm MST
Location: [Webinar Only](#)

Speakers:

Chuck Cullom, *Colorado River Programs Manager, Central Arizona Project*

Lela Perkins, PE, *Senior Water Resources Engineer, Jacobs Engineering Group*

The binational collaboration between Mexico and the US in Minute 323 includes the exploration of joint development of projects, such as seawater desalination opportunities in the Sea of Cortez region. This talk will present the results of a study conducted by a binational workgroup, including federal and state water agencies and NGOs. The study identified opportunities to develop approximately 200,000 acre-feet per year of treated seawater to benefit water users in Mexico and the US in an environmentally responsible manner.



[Register Here](#)
[More Info](#)

Upcoming WRRC Webinars

Apr 14: [Brown Bag Webinar - Tucson Water's Reclaimed Water System: Providing the Right Water for the Right Use for Nearly 40 years](#)

John Kmiec, *Interim Director, Tucson Water*

Apr 21: [Water Solutions for Our Warmer World series Episode 2: Water and COVID-19 in Indian Country](#)

Moderated by Toni Massaro, *Interim Director of the Agnese Nelms Haury Program in Environment and Social Justice*

May 5: Brown Bag Webinar - OpenET – Filling One of the Biggest Data Gaps in Water Management

Robyn Grimm, *Senior Manager - Water Information Systems, Environmental Defense Fund - Western Water Program*





Arizona Gives Day 2021 Tuesday, April 6

Please support UArizona WRRC efforts to improve understanding of critical water issues with your tax-deductible donation!

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NEWS

WRRC Accepting Summer Writing Internship Applications

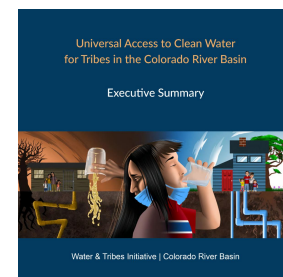
Each year, the WRRC offers enrolled students at the University of Arizona a paid summer writing internship. Intended for students who want to gain experience writing about environmental and water issues, the internship entails research and writing for the annual *Arroyo* publication on a critical Arizona water issue. This year's *Arroyo* will focus on Indigenous water topics relating to the WRRC's upcoming Annual Conference, *Tribal Water Resilience in a Changing Environment*, to be held virtually August 30-September 1. Under the supervision of WRRC staff, the student will create a draft *Arroyo* from published and posted materials, augmented as needed with interviews and other resources. Recognized as a source of objective, accurate, and understandable information, the *Arroyo* reaches a wide audience that includes policymakers and water professionals as well as the interested public. Applications for this year's internship are due Tuesday, April 20.



- [Download the Application](#)
- [More Info](#)
- [2021 Arroyo](#)

Clean Water for Tribes in the Colorado River Basin

The Water & Tribes Initiative (WTI) has released to the public the Executive Summary of its report entitled "Universal Access to Clean Water for Tribes in the Colorado River Basin." The report was prepared by a team led by Heather Tanana, Assistant Professor of Law at the University of Utah. WTI, supported by the Babbitt Center for Land and Water Policy, Catena Foundation, and the Walton Family Foundation, is an effort by tribes in the Colorado River Basin to influence water policy in the basin through facilitated collaborative decision-making. This report highlights current conditions on reservations and the barriers to providing tribal communities with access to clean water. Some of the examples provided in the report include arsenic in the Hopi Tribe groundwater supply, piped water access gaps in the Navajo Nation, operation and maintenance revenue constraints for the Jicarilla Apache Nation, and outdated water delivery infrastructure serving the Colorado River Indian Tribes. The findings suggest that federal agencies are key players in improving tribal community water conditions. The full



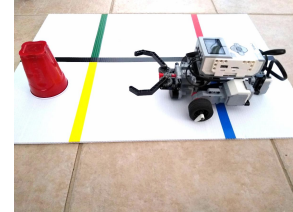
report will be available on the [Water & Tribes Initiative](#) website in the near future. We will be sure to notify our readership as it becomes available.

[Executive Summary](#) [Watch WTI's Webinar](#)



Move it – Turn It – Clean It – Improve it!

With lights flashing and gears turning, the *Lego Mindstorms EV3* robots whiz and whirl across their track, following programmed commands to clean up the neighborhood. Soon they will be working in artificial farm fields across Arizona, helping future farmers assess nutrient and moisture levels – and possibly much more! This exciting new joint venture between Maricopa County's 4-H, Ag Literacy, and APW programs is just getting underway. With skillful robotics guidance from 4-H AmeriCorps representatives, Tim Lonchar and Kenneth Yee, agricultural literacy knowledge from Gigette Webb, and APW's water education experience, a new robotic farm simulation project is being developed to get students excited about agricultural technology. As the group's collective gears turn, they are envisioning scenarios ranging from robots picking crops to assessing nutrients and moisture levels to helping farmers with precision agriculture techniques, ultimately bringing science, technology, and engineering to life in the field. Best of all, they will be bringing this knowledge and experience to classrooms around the state. With all the challenges farmers are currently facing, getting students to revise their perceptions of farming by using advanced technology will be a win-win for all.



Industrial Economic Benefits in Water-Scarce Regions

In March, the Intel Corporation announced it is investing \$20 billion to build two new factories in Arizona, expanding its semiconductor chip manufacturing site in Chandler. Semiconductor chips are essential to our everyday life, needed in operating cellphones, computers, cars, medical equipment, and more. Manufacturing chips is water-intensive, but a study conducted in 2012 by David K. Hubler, James C. Baygents, Christine Mackay, WRRC Director Sharon B. Megdal, and James Farrell showed that the semiconductor industry has one of the highest economic benefits per unit of water used. Moreover, Intel Corporation and Chandler have partnered to treat industrial wastewater before discharging it into the city's aquifer. The article is entitled "Evaluating Economic Effects of Semiconductor Manufacturing in Water-Limited Regions," and its abstract is available on the American Water Works Association website.



Photo: Pok Rie, pexels.com

[Read the Abstract](#)

Cobre Valley Seeks Input on Recreation

Do you enjoy a peaceful sunrise walk, mountain biking with friends, a game of pick-up volleyball on the community field, or a hike to the furthest mountain ridge? Whether you are a resident of southern Gila County or recreate in the area, the Cobre Valley Regional Recreation Survey is looking for your input. The online survey was developed through a collaborative partnership including the City of Globe, Gila County, and the US Forest Service, and is being promoted by dedicated community organizations such as the Cobre Valley Watershed Partnership (CVWP) and the Cathy Sanchez Cañez Memorial Foundation. According to former Globe Vice Mayor, Dr. Thea Wilshire, "This survey is really a point of light in a season of darkness and an opportunity to increase hope for members of our community. The survey looks at recreation broadly to determine what our community currently has for recreation, if we have adequate facilities, what priorities should we be focusing on for future funding, and what is needed for various age groups." The WRRRC Water RAPIDS team collaborates with CVWP to expand our understanding of ecosystem services and how the community can engage in watershed planning efforts. Recreation and accessing the outdoors is just one pathway to becoming a watershed steward.



[Take the Survey](#)

WATER JOBS

- Town of Gilbert [Water Conservation Specialist III](#)
- Pima County [Ecological Monitoring Program Coordinator](#)
- WRRRC [Summer 2021 Writing Internship](#)
- Texas Water Resources Institute [Urban Hydrology Research Scientist](#)
- Texas Water Resources Institute [Urban Water Sustainability Research Scientist](#)

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

ANNOUNCEMENTS

- **Apr 2-Apr 29:** [Programming for Geospatial Hydrological Applications](#)
- **Apr 5:** [Virtual Kick-Off for the 3rd Annual Arizona Water Professionals Appreciation Week \(Apr 5-11\)](#)
- **Apr 6:** [2021 AHS Symposium – Abstract & Poster Deadline](#)
- **Apr 6-8:** [AZ Water 2021 Annual Conference](#)
- **Apr 6-8:** [Virtual 2021 Southwest Adaptation Forum \(SWAF\)](#)
- **Apr 6-Apr 13:** [2021 AWRA Virtual Young Professional Workshop Series: Navigating Your Path From Student to Working Professional in the Time of COVID-19](#)
- **Apr 7-9:** [Biochar Opportunities in the Southwest: Extension Workshop](#)
- **Apr 8:** [USDA Virtual Hiring Event](#)
- **Apr 8-22:** [UArizona, Maricopa County Cooperative Extension 2021 Advanced Smartscape: Irrigation course](#)
- **Apr 9:** [Cobre Valley Recreation Survey Closes](#)
- **Apr 11-May 9:** [Re-envisioning the Middle East Ecosystem: Desert Ecology and Environmental Diplomacy](#)
- **Apr 12-15:** [International Tropical Islands Water Conference](#)
- **Apr 13:** [AHS Tucson Monthly Chapter Meeting](#)
- **Apr 14-May 5:** [UCOWR 2021 Virtual Roundtable Series](#)

- **Apr 15-16:** [2021 Virtual Joint AWRA & National Capital Annual Water Symposium, Human Dimension to Resilient and Sustainable Water Management: Promoting Integrated Collaboration - Registration Open](#)
- **Apr 19:** [Global Environmental Sciences Summit – Abstracts Deadline](#)
- **Apr 21:** [Water Solutions for Our Warmer World series, Episode 2: *Water and COVID-19 in Indian Country*](#)
- **Apr 30:** [NWRI Fellowship Program 2021 – Application Deadline](#)
- **May 10-12:** [International Conference on Water Energy Food and Sustainability \(ICoWEFS 2021 - Leiria, Portugal\)](#)
- **May 18-20:** [11th International Conference on Sustainable Water Resources Management: *Effective Approaches for River Basins and Urban Catchments* \(Milan, Italy\)](#)
- **May 19:** [5MP Agricultural Subgroup Meeting](#)
- **May 19:** [Water Solutions for Our Warmer World series, Episode 3: *The Realities of Adaptation in the Water Sector*](#)
- **May 21:** [30th Annual Desert Horticulture Conference](#)
- **May 24-26:** [International Arid Lands Consortium Virtual Conference *Addressing the Environmental Challenges of Arid Lands*](#)
- **May 26-27:** [*Problematic Groundwater Contaminants: More than PFAS Forum*](#)
- **Jun 1:** [2021 Central Arizona Project Award for Water Research – Application Deadline](#)
- **Jun 8-10:** [UCOWR/NIWR Annual Water Resources Conference](#)
- **Jun 14-17:** [ACE21 - Registration Open](#)
- **Jun 22-23:** [WEF SWI Stormwater Summit 2021](#)
- **Jun 22-23:** [*Fate of PFAS: From Groundwater to Tap Water*](#)
- **Jul 1:** [Women in Water Scholarship - Application Deadline](#)
- **Jul 19-21:** [AWRA 2021 Virtual Summer Conference *Connecting Land & Water for Healthy Communities* - Registration Open](#)
- **Sep 13-15:** [GRA 4th Annual Western Groundwater Congress](#)
- **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* – Save the Date](#)
- **June 14-16, 2022:** [UCOWR 2022 Annual Water Resources Conference – Save the Date](#)
- **Sep 11-15, 2022:** [IWA World Water Congress & Exhibition - *Water for Smart Liveable Cities* \(Copenhagen\)](#)

PUBLICATIONS

[The United Nations World Water Development Report 2021: Valuing Water](#)

Bernat, Rebecca F.A.; Megdal, Sharon B.; Eden, Susanna. 2020. "Long-Term Storage Credits: Analyzing Market-Based Transactions to Achieve Arizona Water Policy Objectives" *Water* 12, no. 2: 568. <https://doi.org/10.3390/w12020568>

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