









#### **December 10, 2021 / Volume 9, Issue 37**

The Water Resources Research Center - a research unit of the <u>College of Agriculture and Life Sciences</u> and an Extension unit in <u>UA Cooperative Extension</u> within the Division of Agriculture, Life & Veterinary Sciences & Cooperative Extension. <u>Subscribe to the Weekly Wave</u>.

#### **WRRC Office Update**

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**IN THIS ISSUE:** MAR, Brown Bag Recap, WRRC Communications Opening, Binational Groundwater, WTI Report, Departing Staff



## Book of MAR Case Studies Published by UNESCO

UNESCO, an organization within the United Nations, recently published a book on Managed Aquifer Recharge (MAR) that is freely available online. MANAGING AQUIFER RECHARGE: A Showcase for Resilience and Sustainability offers 28 real-life examples of MAR use in collaborative water resources management aimed at improving the quantity and quality of water supplies while buffering against drought and other emergencies. The cases show that people at all levels, from village to state, can incorporate MAR in the design of workable and sustainable solutions to their water supply challenges. All 28 examples were evaluated for their environmental and social sustainability using nine indicators specifically developed for this book, and economic cost-benefit ratios were also estimated. For one case study, WRRC Director Sharon B. Megdal joined co-author Kenneth Seasholes, manager of Central Arizona Project Resource Planning and Analysis, in describing the Arizona Water Banking Authority and the value of institutional support for MAR (Case Study 21). The case study shows "how a strong regulatory framework, coupled with public institutions and funding can help support the adoption of MAR on a large scale, and how MAR can achieve broad water management and public policy objectives."

View or Download the Book Here

### **EVENTS**

## Bureau of Reclamation Infrastructure Act Webinars

Dates: Dec 10, Dec 17, Jan 7

A series of webinars will be hosted to discuss Reclamation's implementation of the recently enacted Bipartisan Infrastructure Act. The series of three sessions begins this Friday, December 10, and each session will focus on different sections of the Act.

For additional information, visit: Bipartisan Infrastructure Law | Bureau of Reclamation

### **NEWS**

# WRRC Brown Bag Analyzes Israel's Water Challenges

On Monday, the WRRC hosted Dr. Diego Berger, Coordinator of International Projects for Mekorot, the national water company of Israel. During his presentation, Berger initially walked the audience through the history of Mekorot and described the context for water

management in Israel. As Israel's climate is similar to that of Arizona, the challenge for Mekorot is to support residential, industrial, and agricultural water needs with an extremely

limited resource. The solution: Get creative! Berger provided details on the water infrastructure Mekorot has developed to support Israel's population, including some of the strategies it employs to increase its water supply. According to Berger, the desalination of seawater and brackish groundwater and reusing municipal effluent will play an increasingly significant role in Israel's water portfolio going forward. Currently, only half of Israel's water use is from a "natural" supply—the other half is obtained using innovative technologies. Berger also gave an overview of some of the organizations and laws that govern water use in Israel. At the end of his presentation, Berger described the future of Mekorot, and how it is planning to confront the problems that climate change poses to the already arid region. The recorded webinar will be available early next week.

#### **View the Presentation Slides**

#### **WRRC Seeks Communications Coordinator**

The Water Resources Research Center seeks a full-time staff member to coordinate its communications and engagement activities, beginning early 2022. The Communications Coordinator will be responsible for the management of the WRRC's *Weekly Wave* e-news digest, *Arroyo* annual publication, and Brown Bag



webinars, and will work alongside other staff to produce our annual report, annual conference, and other outreach products. For questions, please contact Program Manager Michael Seronde (<a href="mailto:seronde@arizona.edu">seronde@arizona.edu</a>).

#### **Apply Here**

## Binational Reflections on Shared Groundwater Resources

As populations rise and water resources become increasingly scarce, shared aquifers such as those between the US and Mexico are under significant stress. "Binational Reflections on Pathways to Groundwater Security in the Mexico-United States Borderlands" a



recently published article in the journal *Water International*, reflects on the elements that are necessary for sustainable water resource management, particularly for binational groundwater. The international authors, who include WRRC Director Sharon B. Megdal, conclude that the path forward requires continued development of cooperative frameworks for transboundary aquifer management, governance, and policy. This includes integrating surface and groundwater data and research into policy, support for joint monitoring and modeling of binational water resources, and finding common ground "that bridges scientific, technical, political and governance frameworks."

#### View the Open Access Article

#### **Universal Access to Clean Water for Tribes**

On November 18, the Water and Tribes Initiative published their recommendations in the report, *Universal Access to Clean Water for Tribes*. The report details the disproportionate damages suffered by Native Americans during the COVID-19 pandemic. Many households lack access to clean drinking water and basic sanitation services.



Native American communities have also experienced the highest rates of hospitalization

and death due to COVID-19. The report contains hope, however, through its reference to the Infrastructure Investment and Jobs Act. Critically necessary attention and resources are being made available to Tribes to fulfill promises the US Government made to all Native American Tribes. Steps are being taken to ensure the goal of Tribal self-determination while providing the water necessary for safe consumption and sanitation. According to the forward, the report "is both explicit and comprehensive and can serve as a roadmap for bringing a long unfulfilled promise into realization."

Image: Indigenous Artist Chad L. YellowJohn

#### **View the Full Report**

#### **WRRC Bids Farewell to Valued Staff Members**

At the end of November, we bade adieu to two members of our team. Office Assistant Lynette Featherston, after eight years of service to the WRRC, will be relocating to the Midwest to be closer to her daughter and twin grandchildren. While we have had time (since the start of the COVID-19 pandemic) to ween ourselves from the chocolate Lynette always kept at her desk, we will certainly miss her enthusiasm and warmth, and steady support for all she did on behalf of the WRRC. Accounting Assistant Kayla Catacutan, who joined our team last year, has returned to UArizona Facilities Management. It is a comfort knowing that Kayla will still be in the UArizona family. Although we are sad to see both Lynette and Kayla leave, we are thankful for their time with us and wish them all the best!





### **WATER JOBS**

- WRRC Communications Coordinator
- WRRC Postdoctoral Research Associate (RAPIDS)
- WRRC Postdoctoral Research Associate
- TNC <u>Water Project Manager, Upper San Pedro River</u> (Arizona)
- UArizona <u>Director, Arizona Institutes for Resilience</u>
- Babbitt Center <u>Program Manager</u>

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

## **ANNOUNCEMENTS**

- Dec 10: Bureau of Reclamation Bipartisan Infrastructure Law Information Session
- Dec 13-17: AGU Fall Meeting Session H057: Groundwater Response to Climate Change and Variability
- Dec 15: <u>AWRA Webinar</u>: <u>Did Water Matter at COP26</u>? <u>Does Climate Policy Matter</u> to Water?
- Dec 17: Bureau of Reclamation Bipartisan Infrastructure Law Information Session
- Dec 17: WRRC 2021 Photo Contest: Aridity, Shortage, and Resilience Submission Deadline
- Dec 17: 2022 AZ Water Association Research Symposium Student Poster Abstract Deadline

- Dec 18: <u>2021 College of Science Honorary Degree Recipient Lecture</u>: <u>The Human Side of Groundwater Science</u> (RSVP by Dec 10)
- Dec 21: Water Education Foundation 2022 Inaugural Colorado River Water Leaders Program: Virtual Q&A Session
- Jan 3, 2022: <u>AWRA 2022 Spring Conference</u>: <u>Water Risk Under a Rapidly Changing World</u> <u>Evaluation</u> & <u>Adaptation</u> Abstract Deadline
- Jan 5, 2022: Tubac Presidio Historic Park Ranger Guided Tour: The River Made Me
- Jan 7, 2022: 2022 Geospatial Water Technology Conference Abstract Deadline
- Jan 7, 2022: <u>Bureau of Reclamation Bipartisan Infrastructure Law Information</u> Session
- Jan 11, 2022: 2022 AZ Water Association Research Symposium
- Jan 26, 2022: Spring 2022 UCOWR Roundtable Series: Forever Pollutants: Knowledge Gaps, Risks, and Solutions – Save the Date
- Jan 28, 2022: <u>Water Education Foundation 2022 Inaugural Colorado River Water Leaders Program Application Deadline</u>
- Feb 7, 2022: <u>US Environmental Protection Agency and Army Corps of Engineers</u> New Proposed Rule for Waters Protected Under CWA – Public Comments Deadline
- Feb 15, 2022: Spring 2022 UCOWR Roundtable Series: *Utilizing Drones in Research* Save the Date
- Feb 23-24, 2022: The Third International Congress on Desert Economy: Energy Economics between Deserts and Oceans (Dakhla, Morocco)
- Mar 1, 2022: <u>Babbitt Center for Land and Water Policy 2022 Dissertation</u>
   Fellowships Application Deadline
- Mar 1-3, 2022: Arizona Growing Water Smart Workshop
- Mar 8-10, 2022: Global Council for Science and the Environment (GCSE) 2022

  Virtual Conference: The Road to 2030 Tipping Points for a Climate Positive Future
- Mar 9, 2022: Spring 2022 UCOWR Roundtable Series: Aquatic Invasive Species Save the Date
- Mar 22, 2022: World Water Day 2022
- Mar 22-24, 2022: Expo 2020 Dubai, Water Resources Management and Sustainability: Solutions for Arid Regions
- Apr 11-15, 2022: <u>11<sup>th</sup> International Symposium on Managed Aquifer Recharge</u>
- Apr 20, 2022: Spring 2022 UCOWR Roundtable Series: Coastal Water Issues II Save the Date
- Apr 25-27, 2022: <u>AWRA 2022 Spring Conference</u>: <u>Water Risk Under a Rapidly Changing World Evaluation & Adaptation</u>
- Jun 14-16, 2022: UCOWR/NIWR 2022 Annual Water Resources Conference
- Sep 11-15, 2022: <a href="IWA World Water Congress">IWA World Water Congress & Exhibition Water for Smart Liveable Cities (Copenhagen)</a>
- Sep 14-16, 2022: 2022 AHS Annual Symposium Save the Date

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

Contact us here

Visit our Website