

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

[WRRRC Office Update](#)

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IN THIS ISSUE: WOTUS, Rosie on the House, Dave Kreamer, APW-Action for Climate Empowerment, CAP University, Conservation



PAG Roundtable Explores New WOTUS Definition

Four speakers anchored a roundtable discussion hosted by Pima Association of Governments on Monday, November 2, about impacts of and local responses to the new Navigable Rivers Protection Rule that redefined Waters of the United States (WOTUS). Arizona Department of Environmental Quality Environmental (ADEQ) Program Manager Chris Montague-Breakwell focused his presentation on what ADEQ is doing to provide online tools and guidance for determining whether a Clean Water Act permit will be needed for activities that affect water channels. Basically, a permit is needed for perennial and intermittent waters but not for ephemeral channels. This basic determination, however, is not clear cut, and ADEQ is working to provide clarity. Suzanne Shields, Director and Chief Engineer for the Pima County Regional Flood Control District, followed with a presentation that detailed Pima County's current water protection rules and the

uncertainty that the new WOTUS definition causes for local regulations going forward. City of Tucson impacts and responses were presented by Elizabeth Leibold, a civil engineer with the city's Department of Transportation and Mobility and MS4 (stormwater) Program. She talked about local regulation of development and water quality for protecting ephemeral and intermittent waterways. Lively Q&A caused the roundtable to run long, but participants stayed to hear Julia Fonseca, Senior Planning Manager for the Pima County Office of Sustainability and Conservation, discuss groundwater impacts and issues related to gaps in state and federal water quality protections. Although the effects of the new definition are still uncertain, local water quality management efforts continue to rest on the dynamics our desert environment.

PC: Santa Cruz River at Tumacacori National Historical Park. NPS Photo.

[Roundtable Recording](#)

WRRC EVENTS

Brown Bag Webinar: *Coronavirus Response at the Central Arizona Project*

Date: Friday, November 13, 2020

Time: 12:00 - 1:15 p.m.

Location: [Webinar](#)

Speaker: Ted Cooke, *General Manager, Central Arizona Project*



Ted Cooke will be presenting an overview of how the Central Arizona Project (CAP), a major water supplier with a service area encompassing over 5 million people, responded to the coronavirus pandemic. He will also explain how the CAP kept the water flowing, its employees safe, and managed its facilities.

[Register for the Webinar](#)

Brown Bag Webinar: *Southwestern Navajo Rural Water Appraisal Study*

Date: Wednesday, November 18, 2020

Time: 12:00 - 1:15 p.m.

Location: [Webinar](#)

Speaker: Kevin Black, Sr., *Planning Program Manager, US Bureau of Reclamation - Phoenix Area Office*



The Bureau of Reclamation, in cooperation with the Navajo Department of Water Resources, completed a regional water resource investigation in the southwestern Chapters of the Navajo Nation. Federal partners, local Chapter representatives, private contractors, and a health care steering committee collaborated over two years to complete a comprehensive plan to develop water to meet domestic and commercial demands. This presentation will include the qualitative and quantitative methods of data collection used and highlight the public/Tribal/private partnership organized to complete a report of findings.

[Register for the Webinar](#)

Upcoming Webinars

Dec. 2 – *Balancing Water for People and Nature: The Upper San Pedro River*

Scott Deeny, *Arizona Water Program Lead, The Nature Conservancy*

Holly Richter, *Arizona Water Projects Director, The Nature Conservancy*

Dec. 9 - *Balancing Environmental, Municipal, and Agricultural Needs in the Edwards Aquifer: A Farmer's Perspective*

Adam Yablonski, *President, Comanche Creek Farms*

Jan. 14, 2021 – *Transferring Water in Arizona*

Patrick J. Cunningham, *Public Affairs Consultant and General Counsel, HighGround*

Michael J. Pearce, *Partner, Gammage & Burnham*



OTHER EVENTS

**Third Annual Cobre Valley Water Forum:
*Healthy Forests, Healthy Watershed***

Date: November 12-13, 2020

Time: 9:00 a.m. - 12:00 p.m.

Location: [Virtual Event](#)



Hear from local and regional experts about how healthy forests and uplands contribute to the overall health of the Cobre Valley Watershed in southern Gila County. This virtual event is hosted by the Cobre Valley Watershed Partnership, Gila County Cooperative Extension, and Water Resources Research Center. Thank you to community members and partners for their support!

[Registration and Agenda](#)

NEWS

Rosie on the House Features Water

On Saturday, October 31, the outdoor living hour of *Rosie on the House*, a KTAR News 92.3 weekly radio program about all things related to home improvement, featured three short conversations on different aspects of Arizona's water. One of those conversations was about the UArizona Water Resources Research Center. After Senior Hydrologist Andrew Volkmer of Salt River Project and Director of Operations, Power, and Engineering Darrin Francom of Central Arizona



Project spoke, host Romey Romero gave WRRC Assistant Director Susanna Eden a chance to talk about the Center's programs and products available to the public. The conversation included some Colorado River issues and UArizona's capabilities in water research and innovation. Eden also described the upcoming issue of *Arroyo*, "Arizona Groundwater Management – Past, Present, and Future," which like our other publications will be downloadable free from our website. Not our usual audience, *Rosie on the House* listeners were urged to become regular consumers of water resource information.

[Listen Online](#)

UArizona Alum Elected President of IAH

This September, UArizona alumnus Dave Kreamer became President of the International Association of Hydrogeologists (IAH). Kreamer's career in hydrology started here when he was an undergrad studying microbiology. His academic focus changed when Kreamer met a hydrology student while rock climbing in the Catalina Mountains and was invited to come along on a Colorado River rafting trip to collect water quality samples. As a result of that experience, Kreamer joined what was then the Department of Hydrology and Water Resources, from which he received both his MS and PhD. Now a Professor of Hydrology at the University of Nevada, Las Vegas, he focuses his research on groundwater contamination, ecosystem sustainability in US National Parks and public lands, and water supply in Africa. He maintains ties with UArizona hydrologists, supporting such activities as El Día del Agua, the department's annual student showcase (now El Día del Agua y Atmósfera). For many years, he has been an active voice for and participant in giving through hydrology - "hydrophilanthropy", on which he has written frequently. As President of IAH, Kreamer wants to boost reporting of the achievements of IAH groups and members, engage more corporate sponsors, and support young professionals in developing regions. He is also an advocate of open access publications. Please join us in congratulating Dave Kreamer!



[Kreamer Article on Hydrophilanthropy](#)



Action for Climate Empowerment

Last month at the NAAEE conference, as news of the US leaving the Paris Agreement received minor bylines amongst the all-consuming election headlines, APW learned about the US Action for Climate Empowerment (ACE). ACE has developed a strategic framework to guide the completion of a national strategic plan in time for delivery at the 26th UNFCCC Congress of the Parties in November 2021. Even as the US leaves the Paris Agreement, coalitions of states, cities, and businesses have committed to climate action. They represent 68% of US GDP, 65% of US population, and 51% of US greenhouse gas emissions. The ACE Framework draft is undergoing review and will be released on November 30, 2020. It is a culmination of decades of work including a series of recent participatory dialogues that involved 120 individuals from 100 organizations.



APW's Recharge the Rain project resonates with the Framework's educational recommendations. Partnering with Watershed Management Group, APW developed and implements the project, which empowers teachers and students to learn and act to build community resilience to climate change. ACE defines "climate empowerment" as "the capacity of individuals to understand the complexities of the systemic drivers of climate change, to actively engage in the transformation of these systems, and to participate in meaningful individual and collective personal and political action in response to climate change and its impacts." We invite you all to continue your journey of learning and to engage in meaningful actions to create resilient communities.

- [US Action for Climate Empowerment](#)
- [NAAEE](#)
- [ACE Framework Draft](#)
- [Recharge the Rain](#)
- [Watershed Management Group](#)

Learn More about Central Arizona Project – at CAP University

You probably know CAP is a canal system that brings water from the Colorado River at Lake Havasu, through Phoenix, and ending at the San Xavier District south of Tucson. You may even know it serves Maricopa, Pinal, and Pima counties. That's a start – but there is a lot more to know! If you are interested in learning more about CAP - how it works, where the water comes from, its history, and future plans - CAP University may be for you. CAP is launching this new program, which is free and open to the public, on Wednesday, November 18, 2020. The inaugural course will be presented virtually from 8 to 11 a.m. and will include a high-level overview of the CAP system presented by Central Arizona Water Conservation District board members and the CAP management team. There will be plenty of time for you to get answers to your questions. Registration is now open! After registering, you will receive a link to sign-in on class day.



[Register Here](#)

ADWR Funding Groundwater Conservation Project in AMAs

Last month, the Water Management Assistance Program of the Arizona Department of Water Resources (ADWR) selected 18 groundwater conservation projects to benefit from the Groundwater Conservation Grant program. The \$2 million Groundwater Conservation Grant fund was part of the Interstate Colorado River Drought Contingency Plan agreement to support water projects in the five Arizona Active Management Areas (AMAs). This grant supports water innovation and technology, infrastructure water efficiency, ecological enhancement, and public outreach and engagement projects. For example, Tucson Water received funds to expand a water loss control program throughout its distribution system. EPCOR Water will construct a reclaimed water distribution pipeline from the Pecan Wastewater Treatment Plant to the New Magma Irrigation and Drainage District in the Phoenix AMA. The Borderlands



Restoration Project will restore degraded and eroding drainages north of Nogales, AZ, and in the Prescott AMA, the Department of Transportation is developing a pilot project to recharge stormwater. Arizona Project WET (APW), a WRRRC-affiliated program, received funding for project-based STEM education in Maricopa and Pinal Counties. APW is also partnering with Esser Design, LLC, to develop an educational video series that builds foundational understanding of the groundwater system and explores the intricacies of groundwater management and groundwater replenishment in Central Arizona.

[Full List of Project Awards](#)

ANNOUNCEMENTS

Student Position at WRRRC

The WRRRC is hiring a part-time student employee to help our team with an ongoing data organization and cataloging project. See the full position description [here](#). Submit a letter of interest, resume, and two references to Michael Seronde at seronde@arizona.edu.

- [Green Stormwater Infrastructure Program Manager](#)
- [City of Tempe Municipal Utilities Program Coordinator](#)
- [Nov 7: Research Insights in Semiarid Ecosystems \(RISE\) Symposium](#)
POSTPONED
- [Nov 9: AWRA 2020 - Trivia Game Night with Curtis Earth](#)
- [Nov 9-11: AWRA 2020 Virtual Annual Water Resources Conference](#)
- [Nov 10: RiversEdge West Webinar: *The Three C's of Urban Riparian Restoration: Coordination, Communication, and Challenge*](#)
- [Nov 10: AHS Monthly Chapter Meeting \(Tucson\) - Graham Fogg presents Flood-MAR and a Roadmap to Water Resiliency](#)
- [Nov 10: ADWR Public Meeting – Drought Interagency Coordinating Group \(ICG\)](#)
- [Nov 10: Arizona Water Protection Fund Commission meeting](#)
- [Nov 10-11: AWWA/SWAN International Smart Water Symposium](#)
- [Nov. 12-13: WRRRC Third Annual Cobre Valley Water Forum: *Healthy Forests, Healthy Watershed*](#)
- [Nov. 13: US Bureau of Reclamation Draft Report of the 7.D. Review - Public Comment Deadline](#)
- [Nov. 14: Fifth National Climate Assessment - Author Nomination and Scientific/Technical Input Deadline](#)
- [Nov 16-18: The 7th International Conference on Drylands, Deserts & Desertification \(DDD\) *Feeding the Drylands: Challenges in Changing Environment*](#)
- [Nov 17: AZ Water Association Fall Pretreatment Webinar](#)
- [Nov 17-Dec 9: ADWR 5MP Subgroup Meetings - Municipal Subgroup Meeting, Turf Breakout Meeting, 5th Management Plans Work Group Meeting](#)
- [Nov 18: First CAP University Course: *Introduction to CAP*](#)
- [Nov 19: RiversEdge West 19th Annual Research and Management Conference - Abstract Deadline](#)
- [Nov 19: *Stewart L. Udall's Environmental Diplomacy Legacy: A Virtual Centennial Birthday Celebration*](#)
- [Nov 30: *Hydrology 2021* Travel Awards - Application Deadline](#)
- [Dec 1: WEF SWI Stormwater Summit 2021 – Abstract Deadline](#)
- [Dec 1: ADWR Public Meeting – Governor's Water Augmentation, Innovation, and Conservation Council \(GWAICC\)](#)
- [Dec 2: AZ Water Association InfoShare: *Water Conservation Goes Virtual: COVID-19 Adaptations & Challenges*](#)
- [Dec 6: The Third International Congress on Desert Economy: *Energy Economics between Deserts and Oceans* \(Dakhla, Morocco\) - Call for Papers Deadline](#)

- **Dec 10:** 2021 Ford Foundation Fellowship Programs - [Dissertation](#) and [Postdoctoral](#) Application Deadlines
- **Dec 17:** 2021 Ford Foundation Fellowship Programs - [Predoctoral](#) Application Deadline
- **Jan 5-9, 2021:** [NCSE Drawdown 2021 Conference *Research to Action: Science and Solutions for a Planet Under Pressure*](#)
- **Jan 15, 2021:** [Resources 2021 Travel Award - Application Deadline](#)
- **Feb 1, 2021:** [AWRA 2021 Summer Conference *Connecting Land and Water for Healthy Communities* \(July 19 – 21\) Denver, CO - Special Session Submission Deadline](#)
- **Mar 15-25, 2021:** [36th Annual WaterReuse Symposium: *Resilience Redefined: health.economy.environment*](#)
- **Apr 1, 2021:** [Special Issue of the Journal *Water* \(ISSN 2073-4441, IF 2.544\) - *Advances in Transboundary Aquifer Assessment* - Manuscript Submission Deadline](#)
- **Apr 1-Jul 1, 2021:** [Women in Water Scholarship - Applications Accepted](#)
- **Apr 6-8, 2021:** [AZ Water 2021 Annual Conference](#)
- **May 9-14, 2021:** [IWA World Water Congress & Exhibition - *Water for Smart Liveable Cities* \(Copenhagen\)](#)
- **May 18-20, 2021:** [11th International Conference on Sustainable Water Resources Management: *Effective Approaches for River Basins and Urban Catchments* \(Milan, Italy\)](#)
- **Jun 8-10, 2021:** [UCOWR/NIWR Annual Water Resources Conference](#)
- **Jun 13-16, 2021:** [ACE21 - Save the Date](#)

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