

Arizona Water Innovation Initiative

# Arizona Water Innovation Initiative: Now

August 2024



Reforming rural groundwater management is one of Arizona's top water priorities. There is a compelling need for action now, as more and more rural communities across the state are contending with the effects of groundwater overdraft and depletion.

Both legislation and regulation are possible, but no matter the route, it is well understood that any action must be community driven to have lasting impact. Therefore, we are excited to be partnering with the University of Arizona and the Babbitt Center for Land and Water Policy, as well as collaborators across the state, to host a series of Rural Groundwater Resilience Workshops. Read more about this opportunity below.

Together with you, we look forward to being a part of the solution.

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Dave White Principal Investigator, Arizona Water Innovation Initiative Julie Ann Wrigley Global Futures Laboratory™

### Call for letters of interest: Rural Groundwater Resilience Workshops



The Arizona Water Innovation Initiative's <u>Impact Water –</u> <u>Arizona</u> program, in partnership with University of Arizona's <u>Arizona Institute for</u> <u>Resilience</u> and the Lincoln Institute's <u>Babbitt Center for</u> <u>Land and Water Policy</u> have announced a Call for Interest for rural Arizona communities interested in convening a facilitated workshop on local groundwater issues.

These workshops will address local groundwater issues and empower communities to collaboratively develop and implement strategies to manage groundwater depletion. Please share this opportunity with anyone who might be interested.

#### Learn more and apply

### **Events**



### **ASU Flow 2024**

ASU Flow 2024 will be an exciting event for students and researchers to interact with professionals from the private sector, government agencies and non-profit organizations. In celebration of the start of the water year, the event will be held at the PERA Club on October 21st from 3-8pm.

The event will feature a poster session, technology lightning talks and exhibitor booths to foster networking among industry leaders, academic professionals and graduate students. Arizona water practitioners will also familiarize themselves with the Arizona Water Innovation Initiative.

#### Learn more



### **Politics of Water panel**

KJZZ News hosted "The Politics of Water," a panel discussion, moderated by The Show's Mark Brodie, that explored the politics of water, the stakeholders involved and the conflicts and cooperation that exist throughout all levels of government, as Arizona contends with historic drought.

Expert panelists included Stefanie Smallhouse of the Arizona Farm Bureau, Warren Tenney of the Arizona Municipal Water Users Association, Bruce Hallin of the Arizona Department of Water Resources and Cora Tso, a senior research fellow with the Kyl Center for Water Policy at ASU.

#### Watch now

### Congratulations to Dr. Paul Westerhoff



The Water Research Foundation (WRF) has **awarded the 2024 Research Innovation Award to Dr. Paul Westerhoff**.

The Research Innovation Award recognizes researchers who have made significant contributions to advancing the science of water through research sponsored by WRF.

#### Read more

### *New York Times* opinion piece from Jay Famiglietti



Jay Famiglietti writes in *The New York Times* about the need for a national water policy to address groundwater overdraft.

"If we want to sustain groundwater supplies for future generations, we will need reliable estimates of what's available in key aquifers, how its quality changes with depth and how much can be safely pumped without risk of running dry. That means we must prioritize the systematic exploration and evaluation of what's in the ground and make a plan to end or dramatically reduce groundwater depletion."

### New on our blog



What Arizona residents want to know about water

"Will we run out of water?" "Where does our water come from?" "Is our water safe to drink?" These are just a few of the over 600 questions Arizona residents have asked us about water. The questions came in as part of a short, online survey asking residents where they get their water information and what burning questions they have.



Reducing potable water use with greywater reuse in standalone handwashing stations

"Globally, handwashing stations are a major water use and health and sanitation issue," says **Paul Westerhoff**. "This is true not just in developing economies, but also in major cities where the need is starting to be addressed with new types of sanitation systems."

#### Read more



The potential Arizona water impacts of recent US Supreme Court opinions

**Rhett Larson**, Richard Morrison Professor of Water Law at Arizona State University's Sandra Day

#### Read more



Addressing contemporary water challenges when the technical details are crucial but not enough

**Margaret Garcia** leads a group with a diverse portfolio of water-

O'Connor College of Law, discusses the impacts of the recent *Loper Bright Enterprises v. Raimondo* case, which overturns *Chevron* deference. related engineering projects. Her current focus is on improvements that can be made to mature water infrastructure.

Read more

#### Read more



Leveraging social relationships to drive meaningful change in water-insecure communities

Arizona Water for All, part of the Arizona Water Innovation Initiative, will soon launch its first major engineering project testing decentralized water systems in Florence. AW4A was founded to pursue sustained water-security for the state's most water-insecure communities.

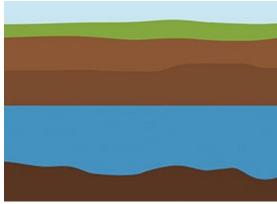
State and university collaboration to address innovative PFAS treatment

"PFAS is really the top contaminant we are facing in the environment right now," says **Treavor Boyer**. "I tell students who are getting ready to graduate that if they go into water or wastewater, they're going to be working on PFAS for a long time because the more we look for it, the more we find it."

#### Read more



Supporting inclusive community engagement in rural communities



Matching groundwater withdrawal and recharge

The Kyl Center for Water Policy at ASU's Morrison Institute recently released a report examining groundwater sustainability in the Phoenix area.

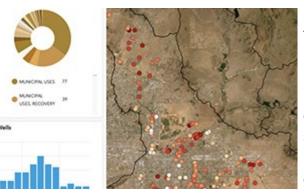
"We have a solid groundwater management framework and are doing well when it comes to the amount of water withdrawn and recharged, says **Kathryn Sorensen**, director of research at the Kyl Center and lead author of the report, "but there is a mismatch between where we are withdrawing groundwater and where we are putting it back." The increasing stress on water resources in Arizona has prompted residents in rural communities to be more involved in the decisionmaking process for ensuring a safe and secure water supply.

Simultaneously, **Julia Davis**, the program manager of ASU Project Cities, a program that works to connect Arizona communities with ASU students and resources to cocreate strategies that address local sustainability challenges, has noticed an increased interest from rural communities to partner with the university.

#### Read more

## **Tools and resources**

#### Read more



### Arizona Groundwater Dashboard

Provides insights about groundwater use in each of the state's 51 groundwater basins, including the basin-wide rate of groundwater level change, the distribution of water uses by categories, the number of wells installed (drilled or rehabilitated) each year and the annual average depth of new wells.

#### Explore this tool



### Arizona Colorado River Update

The Kyl Center for Water Policy introduces a new series featuring updates on Colorado River, groundwater and other water policy issues in Arizona. The next two years will be pivotal as stakeholders negotiate the reservoir operating rules that dictate Colorado River shortages in our state, and these shortages will impact our groundwater. We will try to bring some clarity through light-hearted updates featuring a movie theme.

Explore this resource

### In the news



Intel and TSMC fabs are working to be more sustainable

Several researchers are investigating ways to reduce and recycle water in chip manufacturing. For example, **Paul Westerhoff** at ASU, works with research teams to show manufacturers how to purify wastewater from processing chips and use it to wash the next chip.



White House looks to safeguard groundwater supplies

**Dave White** at ASU, said the White House council's activities are very narrow. "It's not legislation," he said, explaining that PCAST is "intentionally getting a more complicated part of the story" that will better inform their final recommendations to the president.





Designing a more sustainable future with AI

ASU professors **Claire Lauer** and **Stephen Carradini** are working on a sustainability project to ensure one of our most precious resources -- water -- remains plentiful in the desert.



Phoenix Magazine 2024 Best of the Valley

Best Bureaucrats, The Water Ladies: It's still a man's world – even in Arizona, where so many women hold public office. The Water Ladies. Attorneys **Kathleen Ferris, Sarah Porter** and Rita Maguire have decades of experience among them.

#### Read more



California lawmakers reject proposal to curb well-drilling where nearby wells could run dry

"I think it's critically important," said Jay Famiglietti, a hydrologist and professor at Arizona State University. Without this type of legislative change, he said, "it allows the continued drilling of deep wells."

#### Read more



Forest-thinning simulations reveal benefits to water supplies

"That three-dimensional nature of the project is something really unique. It has individual trees. It represents the snowpack, water and channels," said **Enrique Vivoni**. "We have the ability to do that thinning in a smart way."

#### Read more



Arizona tribes were left out of water decisions until 1908. Here's how they negotiate today

"Of course, we have heard about the Navajo Nation, Hopi Tribe and San Juan Southern Paiute proposed settlement and hope that will be settled here within the next year or so," said **Cora Tso**, who is Navajo, and a senior research fellow at Arizona State University's Kyl Center for Water Policy.



ASU graduate student awarded NSF fellowship to study water insecurity along US–Mexico border

**Dylan Diaz-Infante** is a researcher with the Arizona Water for All (AW4A) team, where he works under the leadership of President's Professor Amber Wutich to collect data and do fieldwork with other scientists, legal scholars and community organizations who have ties to colonias communities.

Times Higher Education, 2021

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