

The state of water solutions

ASU water summit explores management strategies, innovative approaches for local challenges

By Marshall Terrill , ASU News

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Water solutions and management must be efficient, affordable, forward-looking and leverage on innovation in order to support human progress and keep society running.

This is according to Estelle Brachlianoff, who came all the way from France to appear as the keynote speaker at “Water Solutions Summit: From Global Insights to Local Action,” held Jan. 23 at Arizona State University.

“When you talk about climate change and the consequences of that, you directly hit upon the question of water,” said Brachlianoff, the CEO of Veolia¹, a transnational service and utility company. “Because climate change is about too much water, too little water, not at the right time and not the right quality. It’s all interconnected.”

Brachlianoff, a civil engineer and a world-renowned expert in environmental services sustainability, said that in 2024, about 80% of U.S. counties faced water shortages and 50% of water infrastructure had some sort of leakage issues.

Despite those challenges, she said Veolia’s formula for finding water solutions is straightforward.

“What we try and do is learn from someplace else, push for solutions and deploy them elsewhere,” Brachlianoff said. “We’re constantly leveraging from a geographical standpoint and being quicker and more efficient in our implementation. We all live on the same planet and there is some common experience across the globe.”

The half-day summit was attended by approximately 80 people and was hosted by ASU’s [Julie Ann Wrigley Global Futures Lab Water Institute](#) and Veolia. It brought together global expertise, local insights and partnerships to address water scarcity and management, strategies and innovative approaches that could be applied to local challenges.

“Water and energy are primary needs of a sustainable modern society,” said [Upmanu Lall](#), director of the Water Institute at ASU’s [Julie Ann Wrigley Global Futures Laboratory](#) and a professor in the [School of Complex Adaptive Systems](#) within the [College of Global Futures](#). “The summit brings together Veolia, an international giant providing water, wastewater and energy infrastructure, and ASU’s Global Futures Laboratory with technical experts from the public and private sector to discuss opportunities for Arizona and the West while looking broadly at what is being done in these areas around the world.”

In addition to Brachlianoff’s remarks, the summit included panel discussions that shined light on a variety of water issues and cutting-edge solutions at the intersection of water and energy management.

Quenching the thirst of the American West

The first panel, titled “Western U.S. Development Trends and Water-Energy Solutions,” was moderated by [Kathryn Sorenson](#), director of research at the [Kyl Center for Water Policy](#) at the [Morrison Institute for Public Policy](#).

Christa McJunkin, senior director of water and supply system at Salt River Project, said water is complicated, expensive and it takes a long time to bring projects together.

“Partnerships are essential whether it’s with cities, private water companies, tribes or governmental agencies,” McJunkin said, who added that SRP delivers water to 10 Valley cities, who in turn treat it before making it potable to residents.

“It’s the cornerstone of what we’ve been able to accomplish thus far and will be even more important as we look to the future,” she said.

Glenn Rink serves as the president of Verano Water Group, a water infrastructure platform focused on extending the life of water through technology. He also serves as the chairman of the board of directors for Waterkeeper Alliance, Inc., the largest and fastest-growing nonprofit organization dedicated to protecting water resources globally.

“Waterkeepers has 300 chapters around the world in 47 countries. It’s ‘glocal.’ It’s both global and local,” Rink said. “The thing it does well is that it does not reinvent the wheel. So if something is done well in one form, it’s able to not have to learn and go through that same process and it’s able to recreate.”

Rink said issues surrounding water quality are litigated heavily depending on the attitudes of administrations.

“Waterkeeper Alliance has brought hundreds of lawsuits against the Environmental Protection Agency in both the Biden administration and the prior Trump administration when they haven’t followed all the details that need to be followed, or how they viewed the law,” Rink said. “And we will continue to do that. We’ll hold anybody and everybody responsible.”

Peoria city manager Henry Darwin said his municipality’s water will increase as the city continues to expand, and that it is developing 7,000 acres of land for commercial and supply chain support to the three fabs at Taiwan Semiconductor Manufacturing Company, less than five miles away.

“As a city manager, when it relates to water issues, it falls into three categories,” Darwin said. “First and foremost, we want to make sure there’s enough water available, and that’s no small task. We also want to make sure that the quality of water we’re serving residents meets all safe drinking water requirements, and (that we’re) doing it as affordably as possible.”

Darwin said Peoria has multiple water sources, including SRP water, stored underground water and the Colorado River, but he believes the latter will become less reliable in the future. He said the city is looking at all options, including recycling water, using reclaimed wastewater and drilling wells to get access to water.

“Just like a lot of West Valley cities, water is going to be our biggest restriction,” Darwin said. “Our growth will be dictated by the amount of water that’s available in my jurisdiction.”

Tempe Mayor Cory Woods said the city has a “sound water supply” but growth and development are pushing the municipality to keep looking for new sources to make it more drought resilient. He said one of the ways that Tempe is doing that is by reactivating the Kyrene Water Reclamation Facility in the southern portion of the city.

The facility allows Tempe to locally treat and use reclaimed water to bolster its water portfolio, increase groundwater storage and irrigate locally.

“We were all going through the Great Recession and didn’t have any ability to continue and operate that facility, so it basically sat in mothballs for over 10 years,” Woods said. “One of the things we’re doing is working with Congressman Greg Stanton and other folks in the government on making sure we can completely reopen that facility for the purpose of reclaiming water.”

The facility, which received \$37.5 million in federal funding to revive the plant, allows the city to locally treat and use reclaimed water to bolster its water portfolio, increase groundwater storage and irrigate locally.

ASU's role in the water pipeline

The second panel of the summit, “Engaging a University-Industry Consortium to Deliver Solutions at Scale,” focused on the power of cross-sector partnerships.

Moderated by [Wellington "Duke" Reiter](#), special advisor to the president of Arizona State University, the panel discussed the ways ASU can join forces to develop and implement large-scale water solutions that make a difference in communities.

Many of these partnerships will focus on the reuse of water, where to recruit employees and how this might include the university, according to the assembled panelists.

“There’s a number of opportunities that exist to collaborate between ASU and TSMC,” said Greg Jackson, director of facility operations at TSMC, which will create 6,000 high-paying tech jobs when they plan to go into production sometime this year. “We’re looking for potential graduates that can come in and join us either as interns or full-time employees when they graduate. Finding strong candidates from the Fulton Schools and other schools at ASU — that’s a huge opportunity.”

Angela Creedon, director for Arizona and New Mexico State and Local Government Relations for Intel Corporation, said the corporation hires more from ASU than any other educational institution throughout the country.

“We have over 100,000 employees, so you can imagine how significant it is for us to hire from top talent with a top engineering school,” said Creedon, who formerly worked for ASU in governmental relations. “It’s been tremendous for us and they’re in our backyard. We have coordinated and partnered with the university in a very comprehensive way.”

Creedon gave the example of when Intel had a downturn in the industry and had to displace some employees. She said ASU President Michael Crow offered to “upskill” the impacted employees, and for free.

“There’s no other university I can think of throughout this country that has stepped to the plate to assist us in good times and bad times like ASU has.”

Panelist John Take is the environmental protection and chief growth officer at Stantec, which has 33,000 workers worldwide and about 500 in Phoenix and Tucson.

“We’re looking to hire thousands of new architects, engineers, technologists and scientists every year to show us a solution to a problem and how we can increase the water supply for everybody — whether it’s us, TSMC, Intel, the university or the consulting industry,” said Take, who has been with the company more than three decades. “We love working with academic institutions and we look for partnerships that fit well with who we are and what we’re working on.”

[Gary Dirks](#), senior director and professor of practice at ASU's [LightWorks](#), said energy and water go hand in hand.

“There is somewhat of a rogue economist named Stephen Cain and he made the very provocative statement that labor without energy is a corpse, and capital without energy is a statue,” said Dirks, who is also the Julie Wrigley Chair of Sustainable Practices, a professor of practice in the [School of Sustainability](#) and a distinguished sustainability scientist. “The point being that energy must flow, period. So the challenge for us is how do we evolve the system while it flows?”

Dirks said these are practical problems that need interface between commercial sectors, energy consumers and companies who are producing energy. He added that together, they must decide what the next generation of energy looks like.

“The university has a fundamental role, and that’s a big part of what we do,” Dirks said.

Lall said that was exactly the point of the summit — not to look back at the last quarter century but to “think about what we want to see at the end of the century.”

“What I find extremely refreshing are the young people,” Lall said. “The change in students and the young people who have taken leadership roles in companies, government, education, has been remarkable. Their sense of purpose for making a better world is unprecedented.”

This story originally appeared on [ASU News](#).

¹ Headquartered in St. Maurice, France, Veolia offers water and environmental services to 45 countries totaling approximately 200 million people.

Main image



Tempe Mayor Corey Woods (far right) speaks on a panel titled "Western U.S. Development Trends and Water-Energy Solutions" along with (from left) Peoria city manager Henry Darwin; moderator Kathryn Sorenson of the Kyl Center for Water Policy; Waterkeeper Alliance's Glenn Rink; and Salt River Project's Christa McJunkin during the Water Solutions Summit on Thursday, Jan. 23, at the Memorial Union on ASU's Tempe campus. Photo by Charlie Leight/ASU News

Text image(s)



Veolia CEO Estelle Brachlianoff speaks at the Water Solutions Summit on Thursday, Jan. 23, at the Memorial Union on ASU's Tempe campus. Photo by Charlie Leight/ASU News



Gary Dirks (right), ASU's senior director of the Global Futures Laboratory, speaks during a panel discussion at the Water Solutions Summit on Thursday, Jan. 23, at the Memorial Union on ASU's Tempe campus. Photo by Charlie Leight/ASU News