WUCA
Water Utility Climate Alliance

2023

WATER UTILITY CLIMATE ALLIANCE ANNUAL REPORT

SUMMARY OF ACTIVITIES:
This report documents the Water Utility Climate Alliance's major accomplishments of 2023.

MESSAGE FROM THE STAFF CHAIR & VICE CHAIR

October 11, 2023

WUCA General Managers,

As we close out 2023, which is likely to become the hottest year on record globally, it feels as though the extreme climate events keep on coming – wildfire smoke along the Atlantic seaboard and Midwest from fires in Canada, wildfires in Hawaii and across the West (including in Portland's watershed), severe drought in the Southwest (which experienced some reprieve from heavy rainfall and atmospheric rivers), heat domes across the country, the first hurricane to hit the desert southwest in California in about a century, multiple hurricanes, and flooding that impacted Tampa Bay, New York City, and others. We say this every year, but it continues to ring true: there is no more urgent need for climate action than now, and the water sector continues to be on the frontlines.

We are therefore pleased to present you with the 2023 WUCA Annual Report, which highlights this year's successes and accomplishments. WUCA has achieved a lot this year!

We continued to build on our equity partnership with the US Water Alliance by hearing from new voices and partners – including how other cities and water agencies are using equity data to inform project priorities, how they are building relationships with community partners, and the successes and challenges in scaling up climate-equity work in the water sector. WUCA staff continue to innovate in the research of climate adaptation practices with our partners, including developing a request for proposals for making the case for climate resilient strategies with the Water Research Foundation, evaluating with researchers how updated vegetation parameters in the VIC hydrologic mode influence hydrologic outputs, how water utilities are integrating climate change thinking into demand forecasting, and deepening our utilities' understanding and interpretation of CMIP6 climate models.

WUCA also made intentional efforts this year to expand the voices and speakers in our Learning from Each Other webinars, so we can not only learn from other experts in climate resilience but also prime ourselves on emerging topics like artificial intelligence in the water sector. WUCA continues to influence federal and national climate policies and efforts, in partnership with the Association of Metropolitan Water Agencies, and to expand our reach on sea-level rise planning with global and national partners. We are deeply proud of WUCA staff accomplishments this year and want to thank the staff for their dedication to mission-critical climate adaptation and mitigation work that serves as model for the water sector. As U.S. EPA Office of Water Assistant Administrator Radhika Fox stated at last year's annual meeting, "WUCA is the gold standard in climate adaptation for the water sector," and we believe this is due to the commitment and efforts of WUCA staff. Thank you!

Please find a summary of our key 2023 activities below.

Kavita Heyn
Staff Chair, WUCA
Adaptive Planning & Climate Manager
Portland Water Bureau

Alan Cohn
Staff Vice-Chair, WUCA
Managing Director, Integrated Water Management New York City Department of Environmental Protection

INTRODUCTION

Each year, the Water Utility Climate Alliance (WUCA) develops a list of projects that will meet priorities outlined in its current strategic plan. A project scope, description, and budget are developed, and projects are ranked by WUCA staff and leadership based on how well they address: (1) the Alliance's current strategic priorities; (2) value added to individual WUCA utilities; and (3) staff time available to execute the project. This forms the annual work plan and budget presented to WUCA executives each year at the General Managers' Business Meeting. Project managers lead projects and facilitate project committees to implement and execute projects. This report documents WUCA's 2023 accomplishments and the next steps for key projects.

Advancing Water Equity and Climate Resilience

Alan Cohn (New York City Department of Environmental Protection) – Project Manager, Amy Motzny, Ann Grodnik-Nagle, Kavita Heyn, Erich Pacheco, Elise Guinee-Cooper, Julia Rockwell, Allison Lau, Ashley Ebrahimi, Heather Dalrymple, Marisa Flores Gonzalez, Denise McGlown, Jenny McCarthy, Carlos Carrillo, Anjuli Corcovelos, and Joshua Randall.

WUCA and the US Water Alliance have continued their collaboration to incorporate equity into WUCA's climate adaptation and mitigation efforts to meet the equity priority outlined in the 2022-2026 Strategic Plan. In 2023, WUCA initiated the first peer learning exchanges with the US Water Alliance's Water Equity Network, a nationwide cross-sector community of practice collaborating to advance equitable water management practices.

In March, WUCA members joined a learning exchange focused on community involvement in climate and equity planning. At the exchange, representatives from the City of Ft. Collins, Colorado, shared their experience partnering with community members to update their climate action plans, highlighting the use of paid community ambassadors and a shift towards shared leadership and co-creation with the community. The June peer learning exchange focused on equitable data practices, and featured Mert Muftugil from the Portland Water Bureau, Julia Kumari Drapkin from ISeeChange, Lu Bivona from Camden County Municipal Utilities Authority, and Franco Montalto from Drexel University. Their presentations focused on their efforts and partnerships to center equity in climate data collection and data-driven decision-making, as well as to counter institutional biases that perpetuate inequities in data.

In November, WUCA and the US Water Alliance will be hosting a Climate-Equity Institute at the One Water Summit. The institute will be an in-depth workshop that combines WUCA's expertise on climate change with the Alliance's expertise on the ways in which equity can be embedded into our future climate action work. At the Institute, WUCA members will also be able to engage with other groups involved in water equity efforts and take part in knowledge exchange activities. Based on the peer learning exchanges and the Climate-Equity Institute, we will begin compiling a set of case studies that demonstrate successful equity projects in the water sector. The lessons gathered through these exchanges and case studies will inform the development of our Equity Framework and Roadmap to define WUCA's role in the water equity and climate space and outline multi-year tasks and objectives to meet the goal of the five-year Strategic Plan to "incorporate equity into all WUCA's work."

Next steps for this project include: the development of three case studies by the end of 2023; three case studies in 2024; and the creation of a WUCA Equity Framework and Roadmap, which can be used by the coalition as a whole and by individual utilities to guide and inform their climate-equity work.

Making the Case for Climate Resilient Water Infrastructure and Supporting Strategies

Committee: Julia Rockwell (Philadelphia Water Department) and Ann Grodnik-Nagle (Seattle Public Utilities), Project Managers, Heather Dalrymple, Alan Cohn, Kavita Heyn, Carlos Carrillo, Marisa Flores Gonzalez, Taylor Winchell, Keely Brooks, Tsega Anbessie.

WUCA is co-funding and partnering with the Water Research Foundation (WRF) on this research project, which was developed to address the lack of a US-based, water-sector specific guidance to compare the costs against direct and indirect benefits over time for particular climate adaptation solutions. To address this need, the project seeks to develop a user-friendly decision-support tool that can assist water sector leaders in evaluating budget decisions related to climate-resilient drinking water, wastewater, and stormwater investments and supporting strategies.

The desired outcomes of this project are:

No. 01

Develop a comprehensive framework to maximize the effectiveness of water utilities' limited resources and ratepayer funds, ensure the long-term sustainability of water services, and promote climate-resilient, multi-benefit solutions;

No. 02

Advance quantitative approaches to promoting climate-resilient infrastructure and approaches in concert with competing utility objectives; and

No. 03

Enhance utilities' ability to communicate with and engage stakeholders about climate adaptation investments and approaches.

Ideally, the tool will recognize the complex layers of decision-making related to climate adaptation and resilience and allow for the consideration of adjacent factors. The budget for this project is $100,000 with WUCA providing half in 2023, and WRF matching. WRF has assembled a Project Advisory Committee (PAC) and has released advance notice for the RFP (RFP 5222). The project will continue with no need for further funding in 2024.

Practitioner Exchange for Effective Response to Sea Level Rise (PEERS)

Committee: David Behar (San Francisco Public Utilities Commission), Project Manager, Tirusew Asefa.

With support from the WUCA Emerging Opportunities fund in 2022 and WUCA program funding in 2023, WUCA was instrumental in helping launch the Practitioner Exchange for Effective Response to Sea Level Rise (PEERS). PEERS is the first global community of practice working across boundaries to proactively address the risks of sea level rise and related coastal hazards. During most of 2023, PEERS was in "soft launch" mode and initiated two projects: a NASA partnership leveraging 30 years of satellite data to co-produce inundation mapping tools for up to 400 cities globally; and a webinar series entitled "Adaptation Pathways in Action" to explore the use of this much-touted approach in the practitioner context.

Modeled significantly on WUCA, PEERS also formed an international Development Committee, which developed a mission, a set of goals, and an interim Steering Committee (chaired by WUCA Founding Chair David Behar). The Steering Committee will shepherd organizational development and to date has initiated discussions with technical and community partners globally. In 2023, PEERS signed a memorandum of understanding with the Aspen Global Change Institute as fiscal sponsor and provider of the PEERS Global Director, Dr. Glynis Lough.

On September 7, PEERS began recruiting members focused on coastal practitioners globally, and in the first 12 days of outreach, over 250 individuals from 37 countries joined. PEERS will hold its formal launch on October 4 at the Adaptation Futures conference in Montreal, featuring participation from PEERS leaders from the United States, Philippines, Brazil, Japan, and Canada. The PEERS Strategic Plan and website (www.peerscoastal.org) are in development. In 2024, interested WUCA staff will continue to engage with the PEERS' North American regional community.

In the first 12 days of accepting members, over 250 individuals from 37 countries joined PEERS.

Climate Resilience Training

Committee: Julia Rockwell, Allison Lau (Philadelphia Water Department), Alan Cohn, Jennifer Garigliano (New York City Department of Environmental Protection).

WUCA, in collaboration with US EPA and Aspen Global Change Institute (ACGI), is hosting its first-ever climate resilience workshop focused on the Delaware River basin. This workshop is the seventh in a serious of WUCA trainings held in regions across the country, including, most recently, a successful workshop in July 2022 focused on the Colorado River basin. The Delaware River basin workshop, held October 17-19, 2023, was developed by the Philadelphia Water Department (PWD) and the NYC Department of Environmental Protection (NYCDEP) to build stronger connections among water agencies, climate scientists, and water resource organizations who focus their work in the region. The 3-day workshop was designed to increase Basin stakeholders' collective understanding of both water sector and climate change planning challenges and provide tools and case studies on how to overcome these challenges and successfully adapt, even amid deep uncertainty. During the workshop, climate scientists and practitioners had the opportunity to exchange knowledge and insights, fostering a deeper understanding of strategies to improve future collaboration.

WUCA has hosted 7 climate resilience training sessions in its history.

Climate Resilience Training

The WUCA climate resilience workshops were originally developed as trainings to help water sector professionals use climate information in their planning work. While this overarching goal remains relevant, the water sector's understanding of climate change and adaptation has evolved, and, consequently, so too have the content and focus of the workshops. The goals of the 2023 Delaware River basin workshop included the following: provide basin stakeholders with a better understanding of the latest climate change projections and their application in long-term water agency planning, including planning frameworks that address deep uncertainty; highlight national and local case studies on actionable climate science and adaptation leading practices; discuss solutions for successful adaptation in the water sector; and provide a forum to explore opportunities to enhance the co-creation of actionable climate science for drinking water, wastewater, and stormwater utilities in the Northeast Region.

CMIP6 Working Group

Committee: Keely Brooks (Southern Nevada Water Authority), Nolie Templeton (Central Arizona Project), and Rolf Gersonde, Project Managers, Kavita Heyn, Taylor Winchell, Julia Rockewell, Miles Mayhew, Asley Ebrahimi, Helen Gerlach, Jerry Mead, Tsega Anbessie, Ben Beal, Hui Wang, Thomas Maher, Rajith Mukundan, Rakesh Gelda, Ayoub Ayoub, Elizabeth Garcia, Amod Dhakal, and Tai Ovbieo.

A new generation of climate models, called the Coupled Model Intercomparison Projects phase 6 (CMIP6) were released between 2019-2021. Assessments using these future climate projections at global, regional, and local scales continue to trickle in. As WUCA strives to stay abreast of the latest climate science, the Alliance formed the CMIP6 workgroup to: understand the new CMIP6 datasets that rely on updated emission scenarios; learn how CMIP6 datasets and downscaled CMIP6 datasets compare to previous CMIP datasets; understand when using new CMIP data is appropriate or not; learn where to access data and resources; provide a forum for members to share knowledge and experience with new climate models, how they affect members' work, and how to integrate new scientific findings from the peer group.

CMIP6 Working Group

The workgroup, consisting of modeling staff from each member agency, convened quarterly to hear from water resource and climate science scholars and practitioners. These included Paul Loikith, Portland State University; Jeff Lukas, Lukas Climate; Daniel Bader, Columbia University's Center for Climate Systems Research; and Helen Gerlach, Austin Water. The workgroup learned that multiple CMIP6 models showed very high climate sensitivity (warming response to emissions), and learned about a proposed correction method to screen models for suitable regional and local analyses. Presentation topics also covered a comparison of CMIP6 and CMIP5 over Western North America and the Colorado River (Figure 1), as well as how a water utility, Austin Water, is using CMIP6 models to inform their latest water resource plan.

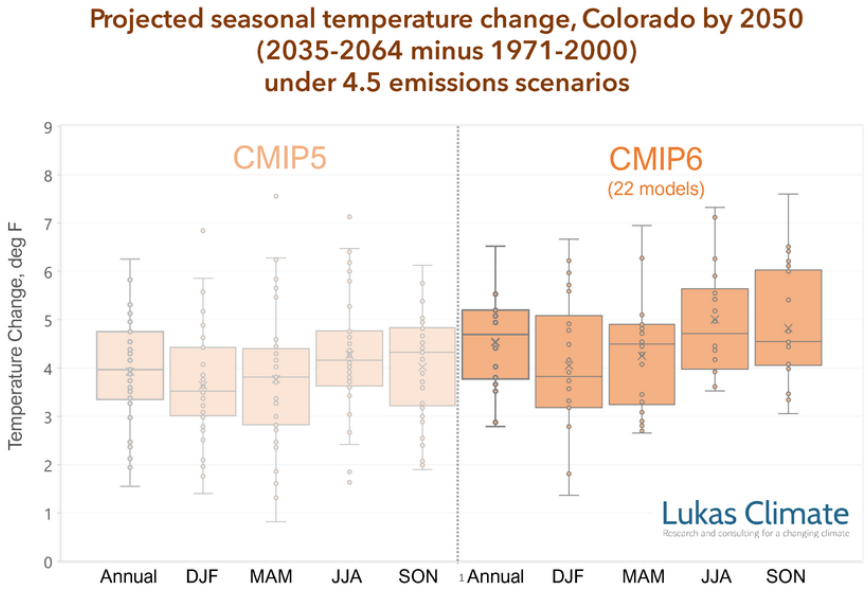

Figure 1. Projected change in temperature over Colorado by 2050 under 4.5 emission scenarios for CMIP5 (left) compared to CMIP6 (right). Even after screening out the hot models, CMIP6 projects warmer temperatures than CMIP5 models.

Finally, the workgroup developed a project for WUCA's 2024 workplan. The project proposes developing a Frequently Asked Questions (FAQs) white paper for water managers with different levels of experience with CMIP6 data sets. The goal is to develop 5-10 FAQs with easily digestible responses to aid the use and interpretation of CMIP6 data sets by water managers, with a focus on the continental United States.

Impact of Hydrological Model Vegetation Representation under different Climate Change Projections

Committee: Keely Brooks (Southern Nevada Water Authority) and Nolie Templeton (Central Arizona Project), Project Managers, Jenny McCarthy, Kavita Heyn, Taylor Winchell, Ann Grodnik-Nagle, Alan Cohn, and Ben Beal.

As climate change drives air temperatures upward, how land cover and vegetation is represented in hydrologic models is increasingly important to accurately estimate runoff volumes. In 2023, WUCA funded a project with the National Center for Atmospheric Research to test the impact of updating vegetation parameters in a commonly used hydrologic model (the Variable Infiltration Capacity [VIC] model) on streamflow in several western basins (Figure 2) and to develop a short summary using strong visual elements/graphics to communicate key findings to water managers.

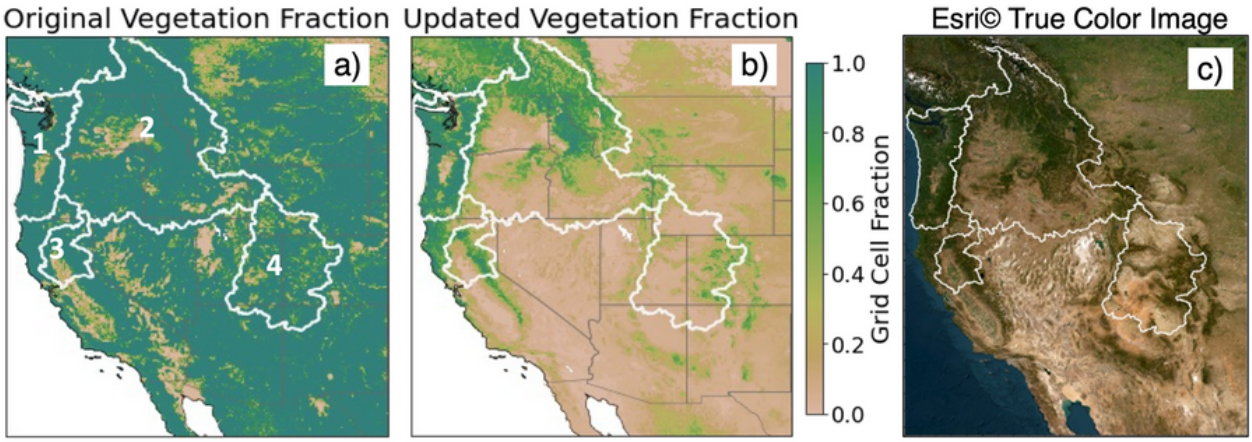

Figure 2. Vegetation fraction from the original (a) and updated (b) vegetation parameters with a satellite image for visual comparison (c). White outlines delineate hydrologic basins of interest: 1) Western Pacific Northwest; 2) Columbia River Basin; 3) Sacramento; and 4) Upper Colorado.

One of the key findings from the analysis was that updating vegetation parameters in VIC has the largest effect on basin wide streamflow in semi-arid regions (e.g., Upper Colorado and the Western Pacific Northwest). More information is available in the full report of the final Impact of Hydrological Model Vegetation Representation under different Climate Change Projections summary at the end of the annual report.

Greenhouse Gas Mitigation Committee

Committee: Heather Dalrymple (Austin Water) and Nolie Templeton (Central Arizona Project), Project Managers, Brooks Bolsinger, Keely Brooks, Anjuli Corcovelos, Elizabeth Crosson, Elise Guinee-Cooper, Kavita Heyn, Adrian Hightower, Jennifer McCarthy, Ashima Sukhdev, Taylor Winchell.

To help address a gap identified in its 2021 greenhouse gas (GHG) case study project, WUCA initiated this committee to provide a collaborative space where water utilities can connect with and learn from each other as they work to better understand and reduce their GHG emissions. Since water utilities have historically produced significant emissions, effective mitigation can help to lessen the long-term effects of climate change while providing a leading example for other industry sectors and providing both cost savings and revenue generation benefits. This committee, with its focus on mainstreaming GHG mitigation and enhancing knowledge sharing across utilities, also helps WUCA achieve its 2022-2026 Strategic Plan objectives.

In January, the committee brainstormed ideas for establishing this community of practice. Discussion centered on identifying opportunities to build onto ongoing mitigation work and determining strategies for launching and supporting the community. For this first year, participation was limited to WUCA utilities but is intended to expand to include additional utilities in subsequent years.

In May, AMWA staff gave a presentation on Inflation Reduction Act (IRA) funding opportunities and shared resources for further exploration. In June, the Metropolitan Water District of Southern California presented on its climate action plan and the process they used to develop it. In September, the committee discussed the Water Research Foundation's GHG accounting project, opportunities for collaboration, and began developing a workplan for the upcoming year.

There was great interest from WUCAs to scope a GHG project for 2024 to help better inform decarbonization efforts at utilities, and the committee identified a need for better guidance, understanding and examples related to the Inflation Reduction Act which provides a once in a generation opportunity to fund decarbonization and mitigation.

Long-Term Water Demand Forecasting and Climate Change

Committee: Keely Brooks (Southern Nevada Water Authority), Project Manager, Carlos Carrillo, Tirusew Asefa, Seevani Bista, Taylor Winchell, Kavita Heyn, Sara Eatman, Viviane Baji, Joseph Woodrick, John Edgerly, Tom Maher, Elizabeth Garcia, Ryan Shepler, Ayoub Ayoub, Seth Shanahan, Ben Beal, Kent Sovocool, and Amod Dhakal

Starting in 2022 and continuing in 2023, WUCA convened a workgroup to exchange information on how members were incorporating climate change into water demand forecasts. Members met five times during 2023 and uncovered the following key lessons:

- Southern Nevada Water Authority and Central Arizona Project use remote sensing data to gather locally relevant irrigable area information to target demand management programs, which ultimately influence demand forecasts.

- Seattle Public Utilities and Portland Water Bureau use multiple demand scenarios and more frequent forecast update schedules to address and adjust to uncertainties like climate change.

- Austin Water uses both multiple scenarios and a segmented end use model that can be modified to capture changes in climate.

- Metropolitan Water District of Southern California demonstrated historical system water demand response to mandated water restrictions over the last decade. They discussed how certain conservation strategies (e.g., removing turf grass) resulted in more permanent water savings, while others (e.g., messaging for shorter showers) resulted in temporary water savings.

- The Southern California Edison, a power provider, is using global climate models (representative concentration pathway [RCP] 8.5) to develop future system load scenarios that account for increased frequency of maximum temperature events and coincident load peaks across the state and reduced behind the meter solar output due to maximum temperatures.

More detailed key lessons learned are included in the Water Demand Forecasting summary at the end of the annual report.

Learning From Each Other

Committee: Alan Cohn, Kavita Heyn, Tirusew Asefa, Taylor Winchell, and Ann Grodnik-Nagle, with support from Jessica Evans and Erica Brown (Association of Metropolitan Water Agencies)

WUCA continued its virtual climate learning exchanges with experts and partners in 2023. This year, speakers presented on a range of topics, including WUCA's own work, experts on state decisions affecting water and climate change resilience, climate financing, artificial intelligence, and more. WUCA's learning webinars continue to be an opportunity for experts to share knowledge and build networks with engaged climate adaptation leaders in the water sector.

The first Water Utility Climate Alliance (WUCA) Learning from Each Other session of the year featured a discussion of the "Scaling and Application of Climate Projections to Stormwater and Wastewater Resilience Planning" report from the Pathways Climate Institute and WUCA. During the session, WUCA highlighted leading practices associated with the use, scaling, and application of climate observations and projections, with an emphasis on future rainfall. The report, developed in partnership with Pathways Climate Institute, included a national review and case studies of challenges posed to utilities and the communities they serve, if and how they are considering climate change in planning, how they use climate observations and projections, and successes and opportunities for bridging the gaps between climate science users and providers.

Another webinar featured Felicia Marcus, JD, who joined WUCA to discuss California's resilience. Felicia Marcus's presentation focused on the state of major challenges California faces, including droughts, sea level rise, and recent atmospheric rivers. She discussed what is at stake and some of the efforts at the state and local level to adapt to a perilous future. Felicia Marcus is currently the Landreth Visiting Fellow at Stanford University's Water in the West Program and was most recently Chair of the California State Water Resources Control Board.

6 Learning from Each Other (LFEO) webinars in 2023

Learning From Each Other

Dr. Jan Whittington joined the WUCA network at a separate time to discuss how utilities can incorporate climate mitigation and adaptation into their capital planning and budgeting process and how this information can benefit utilities as they are evaluated in the credit rating, insurance, and bond markets. During the discussion, Dr. Whittington spoke about field-tested tools she has adapted for the water sector from work she has done with the World Bank, United Nations, and similar global institutions.

A summer webinar featured a discussion on the business case for adaptation from the City of Miami Beach, Florida. Amy Knowles, Chief Resilience Officer and the Director of Environment and Sustainability for the City of Miami Beach, provided a discussion of Miami Beach's business case for stormwater and sea level rise adaptation and its implementation. Miami Beach is a living laboratory for climate change, and Ms. Knowles discussed the city's focus on integrating climate preparedness planning with nature-based solutions, infrastructure, and cross-jurisdictional planning. In planning for sea level rise, Ms. Knowles discussed leading the city's first vulnerability assessment and the business case analysis of the stormwater program, highlighting both the social and economic importance of protecting Miami Beach.

The July webinar included an expert overview of artificial intelligence applications for the water sector. Paul Fleming, President of WaterValue and an expert in the intersection of technology, water, and climate resilience, provided an overview of artificial intelligence and digital applications in the water sector, with a focus on climate change adaptation. His presentation focused on introducing main players in the space to water utility practitioners and included some initial questions and lessons practitioners can keep in mind as AI and digital applications develop to address the myriad issues facing water utilities.

WUCA plans to hold at least one more webinar in November 2023. The webinar will include an introduction to the Institute for Sustainable Infrastructure (ISI) and case studies from the New York City Department of Environmental Protection's use of Envision. ISI developed and manages Envision, a framework that encourages systemic changes in the planning, design, and delivery of sustainable, resilient, and equitable civil infrastructure through education, training, and third-party project verification. ISI also offers credentials for Envision Sustainability Professionals. ISI will also discuss how these credentials can help rising water utility sustainability professionals.

Engaging with Federal Climate Initiatives

Committee: Kavita Heyn, WUCA Staff Chair (Portland Water Bureau), Project Manager, with support from Jessica Evans (Association of Metropolitan Water Agencies).

In 2023, WUCA continued its engagement on federal climate adaptation and resilience efforts. Sparked by the historic passage of recent federal infrastructure and climate legislation, and in the interest of sharing its collective adaptation knowledge, WUCA dedicated time to engage with federal offices, reports, and advisory councils. The Alliance submitted feedback on different federal tools, engaged directly with agencies delivering adaptation services, and submitted nominees for two different federal advisory councils. Here, WUCA shares just some highlights of its federal engagement.

WUCA engaged with federal offices and initiatives leading climate change adaptation where possible. Beginning late last year, WUCA invited Assistant Administrator for the EPA Office of Water, Radhika Fox, to speak at the 2022 General Manager's meeting. Assistant Administrator Fox delivered remarks about the nation's historic investments in drinking, waste, and stormwater infrastructure and called WUCA the "Gold standard in climate adaptation for the water sector."

2 nominations to federal advisory boards

2 comment letters on federal climate services

In 2023, WUCA delivered comments on two different federal climate adaptation reports and tools: the draft Fifth National Climate Assessment (NCA5), and NOAA's request for information the Equitable Delivery of Climate Services. In response to NCA5, WUCA staff provided feedback on the overall report as well as the water chapter, highlighting questions and concerns for practitioners. WUCA's comments also encouraged the chapter authors to include more practitioner-focused materials, such as ones developed by the Alliance. In response to NOAA's inquiry on climate services, WUCA members outlined the climate services they find critical, how they are delivered, and made recommendations on how NOAA make them easier to access for all water utilities and especially communities and jurisdictions with limited resources and capacity.

Finally, in late September, WUCA Staff Chair Kavita Heyn (Portland Water Bureau) attended a first-ever White House Summit on Building Climate Resilient Communities, where 70 local, state, Tribal, and territorial leaders gathered to discuss and share climate resilience strategies that are locally tailored and community-driven. The summit included using shared knowledge to develop a roadmap on how investments in climate actions can build more climate-resilient communities across the nation.

WUCA Website

Committee: Keely Brooks & Ashleigh Thompson (Southern Nevada Water Authority), and Kavita Heyn support. All WUCA members provide content, and SNWA website team implements.

SNWA continues to provide exceptional web support services to WUCA. To keep the website fresh, WUCA staff provides SNWA updates on the latest projects and relevant news throughout the year. This includes updates to the WUCA landing page to better describe the full range of WUCA's work. SNWA posts the latest WUCA products, such as the recently completed Scaling and Application of Climate Projections to Stormwater and Wastewater Resilience Planning. Additionally, project management tracks and reports on monthly and annual website page visitations and key search terms to better understand the value of the website as a communication tool, and to understand ways to better meet WUCA's strategic goal to "Transfer Knowledge" to the broader water sector.

CONCLUSION

In 2024, WUCA will expand on the progress of this year's projects, identify new opportunities that align with the updated Strategic Plan, and remain responsive to emerging trends. WUCA's projects will support the priorities of its membership, and the water sector, by producing and sharing research and products of actionable value. Like many organizations, WUCA has experienced turnover and added new staff members during 2023. The staff hopes to continue in-person meetings in 2024, and is planning on hosting the spring meeting in conjunction with the National Adaptation Forum in St. Paul, Minnesota, and to enhance WUCA's effectiveness as it continues implementing its strategic plan. WUCA's 2024 Workplan is available for review with a description of next year's goals.