

2017 WATER UTILITY CLIMATE ALLIANCE ANNUAL REPORT



October

Summary of activities

This report documents the Water Utility Climate Alliance's 2017 Work Plan progress and provides a list of next steps.

2017 Water Utility Climate Alliance Annual Report

MESSAGE FROM THE CHAIR



As 2017 comes to a close, and as SNWA's tenure as Chair and Executive Chair draws to completion, I'm happy to report several historic achievements for WUCA.

This year WUCA expanded the coalition to include a new member, Austin Water, and extended an invitation to Philadelphia Water. We partnered with the Environmental Protection Agency, the Western Urban Water Coalition and other groups on a variety of climate-change related initiatives. We launched the first-ever WUCA technical training for water sector professionals on how to plan for deep uncertainty. Our focus on communication and messaging resulted in an updated web presence and gave us insight on ways to improve organizational action on climate change.

We, the staff, appreciate your continued support for WUCA, and we look forward to presenting our plans for 2018 at this year's GM Retreat. Finally, I'm excited to hand over the leadership reins to Denver Water's Laurna Kaatz. She and the new Executive Chair, Jim Lochhead, will do an exemplary job guiding WUCA into its second decade.

Keely Brooks
Chair, WUCA
Climate Science and Adaptation Lead, SNWA

SUMMARY OF ACTIVITIES

INTRODUCTION

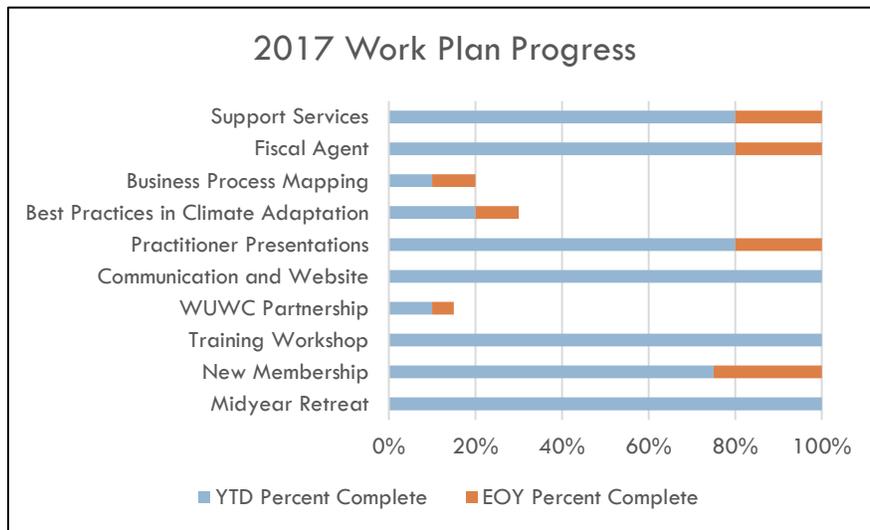
Each year the Water Utility Climate Alliance (WUCA) develops a list of projects that will help meet priorities outlined in its most recent strategic plan, the [2017-2021 Strategic Plan](#). A project description and budget is developed for the highest ranked projects based on how well they address the Alliance's current priorities. This forms the annual work plan and budget presented to WUCA executives each year at the General Managers' Retreat in October. The 2017 Work Plan and Budget (henceforth the Work Plan), finalized on November 2, 2016, outlines ten projects, including four new technical projects, three projects supporting the administration of the Alliance, two staff education and planning initiatives, and one emerging opportunity initiative. The total budget for 2017 activities was \$170,000, but because of unspent funds from 2016 activities rolled over to 2017, each of the 10 member agencies only needed to contribute \$7,386. This report documents WUCA's 2017 accomplishments and next steps, organized by the approved Work Plan.

2017 ACCOMPLISHMENTS AND NEXT STEPS

WUCA took several major steps in 2017. A significant step towards sustaining the coalition was the addition of new member Austin Water to the WUCA fold. Its experience in climate adaptation will add a deeper well of knowledge to the Alliance. An opportunity emerged early in 2017 to work with EPA on a technical training in climate science, uncertainty, and changing planning methods to consider climate change. The opportunity

did not require WUCA funds but required significant staff time. The training, which was held in September, was a big success. Significant progress was made on approved Work Plan items as well. In fact, most of the 2017 Work Plan items were completed or will be complete by the end of 2017 (seven out of 10). However, three items, two of which have budgets, are still in the nascent stages of development. Figure 1 displays the percent complete for each of the Work Plan items. All three technical work items still in their infancy are multi-year projects and 2017 was used to better develop their scopes. These three technical items are the Business Function Mapping, Best Practices in Climate Adaptation, and the Western Urban Water Coalition (WUWC) Partnership. We anticipate significant progress in these areas in 2018.

Figure 1. 2017 Work Plan Progress as percent complete



Support Services (Keely Brooks)

The staff contracted with the Association of Metropolitan Water Agencies (AMWA) to provide administrative support for regular conference calls and in-person meetings, help draft new content for the WUCA website, and provide contracting services with consultants as needed in an amount not to exceed \$50,000. This Work Plan item addresses the **Sustain the Coalition** strategic priority.

2017 Accomplishments:

- Maintained and updated an Orientation Guide containing contact information for Officers, Project Managers, and Staff, and a quick guide to WUCA bylaws, roles and responsibilities, calendar of WUCA activities and other useful information developed by the Chair and Vice Chair
- 375 hours setting up and coordinating conference calls and planning logistics for in-person meetings, and developing call and workshop summaries
- 42 hours in website content development and coordination
- Executed Letter of Agreement with the Water Research Foundation for the Business Function Mapping work item, acting on behalf of WUCA as its consultant for contracting services (anticipated before the end of 2017)
- Three draft comment letters and letters of support
- Remained on schedule and within budget

Next Steps:

- Revise Professional Service Agreement between Southern Nevada Water Authority and AMWA to clarify invoicing process when AMWA provides contracting services and acts on behalf of WUCA, and revise contract to reflect refined budget based on 2017 activities and allow equal billing amounts quarterly
- Revise or amend WUCA Fiscal Agreement among members to include new WUCA members
- Complete similar services in 2018

Business Function Mapping (Paul Fleming)

The project will create a framework to comprehensively determine how climate change may affect the full suite of utility business functions and provide guidance on the type of climate information most appropriate to use. It is intended to address the **Mainstream and Operationalize** strategic priority, and the “research when and how to use climate information in utility decisions and business practices” strategic objective.

2017 Accomplishments:

- Secured \$50,000 in partnership funding from the Water Research Foundation (WRF)
- Established project management agreement between WUCA, AMWA and WRF
- Created Project Advisory committee consisting of WUCA members

Next Steps:

- Issue a Request for Proposal, review proposals, select consultants and initiate the project

Best Practices in Climate Adaptation (Laurna Kaatz)

This project is developing a series of best practices in climate adaptation based on the practical knowledge and experience of WUCA members. WUCA members are being challenged to think critically about their full spectrum of climate adaptation activities and clearly articulate their experiences and associated practices. This Work Plan item fulfills the **Knowledge Generation** strategic priority and “stay abreast of current and emergent trends” strategic objective.

2017 Accomplishments:

- Drafted a working framework articulating the multi-faceted aspects of climate adaptation
- Completed an assessment to understand other efforts associated with climate adaptation best practices and established ways to reference and build onto relevant work
- Actively engaged with the National Center for Atmospheric Research and American Society for Civil Engineers on projects that may support this work
- Developed a living list of WUCA member adaptation lessons, which were used to inform the website and Resilience Training

Next Steps:

- Refine and implement a Scope of Work
- Select and contract with a consultant team

Member Utility and Climate Practitioner Presentations (Rachel Pence)

This Work Plan item helps fill the **Knowledge Generation** strategic priority and the ‘stay abreast of current and emergent trend’ strategic objective. Through this Work Plan item, we hear what others in the sector are doing to address and adapt to climate change. It is also an opportunity to share how member utilities and practitioners are applying climate change information to stimulate progress amongst member agencies.

2017 Accomplishments:

- Coordinated with presenters and AWWA to arrange bimonthly presentations to WUCA
- Covered a wide breadth of topics with speakers from climate scientists, national agencies, member utilities, and non-member utilities
- Fostered relationships with climate professionals and provided a forum to learn and ask questions from experts
- Kept a running of list of potential presenters

Next Steps:

- Upload slides and videos of the presentations to WUCA’s internal shared drive
- Continue to bring in a variety of experts for WUCA to learn from
- Complete similar activities in 2018

Communication (Kavita Heyn) and Website (Keely Brooks)

As part of WUCA’s Strategic Plan goal to **Mainstream and Operationalize** climate change data by increasing the climate literacy within member utilities, staff conducted a seven-question survey of member utilities. The survey focused on how utilities are communicating about climate change for internal and external audiences. Staff also redesigned the WUCA website. The survey’s key findings were summarized in a [ten-page report](#) available on the updated website. The much-improved and contemporary website publicizes WUCA work products and showcases WUCA as a leader in water sector climate adaptation (Figure 2).



The new website offers WUCA the ability to share publications easily, and is now being updated regularly to highlight WUCAs involvement in conferences and workshops in the water resource and climate change sectors.

Figure 2. Key messages from WUCA's website homepage

Key messages from WUCA



Warming is here and now

Climate adaptation planning is not just about the future. Water utilities are experiencing the effects of a changing climate on their water resources today.



Know your system and explore its vulnerabilities

Assess your water system to identify vulnerabilities. Risks can only be reduced if they are identified.



Plan for multiple futures

Predicting the future is not feasible but anticipating plausible warmer future climates is. Prepare to face a variety of scenarios.



Capacity building and assessment are part of the adaptation equation

Developing the technical and managerial expertise to identify and assess climate risks to a system is as much a part of adaptation as the steps taken to implement risk reduction measures.

2017 Accomplishments: Survey Findings

- Most member utilities do not address climate change explicitly in external communications
- A few WUCA members explicitly describe climate change as one of the key challenges facing their utilities, and even use it as part of the business case for infrastructure improvements and rate increases.
- Utilities that did not explicitly communicate externally about climate change incorporated it into other related messaging around drought and water conservation
- Most WUCA members seemed to focus on internal (not external) messaging related to climate change, and climate staff agreed that developing specific messages for utility engineers, operators and planners was a prime focus of their internal communications efforts.
- Staff also indicated there are limited resources in most utilities to develop climate change messaging, and there was some indication that staff would like this to change.

Next Steps:

- Develop messaging for WUCA staff to aid communicating with utility engineers, planners and operations staff
- Create a one- to three-page guidance document for staff with recommended messaging around probability, plausibility, uncertainty, and changing design conditions for use with utility engineers and planners
- Develop a fact sheet based on staff responses to a survey, highlighting the benefits received from being a WUCA member and how membership has changed the way the utility plans for climate change
- Continue to regularly update WUCA website to keep content fresh

Western Urban Water Coalition Partnership (Keely Brooks)

Both the WUCA and the Western Urban Water Coalition (WUWC) are concerned with how climate change is impacting, and will continue to impact, utilities' ability to comply with federal environmental laws including the Clean Water Act (CWA). In August 2016, WUCA and WUWC entered a partnership to determine the type of information needed to help demonstrate challenges and barriers utilities are (or are not) experiencing using existing flexibility in the CWA. The plan was to develop a survey to gather needed information. During the development of the survey, it became clear that some information only state agencies could provide and therefore more research would be necessary before a survey instrument could be deployed. Then, this effort was interrupted by the change in the federal administration, and WUCA and WUWC were required to revisit the objectives of the partnership for the duration of the current administration.

This Work Plan item addresses the strategic priority **Mainstream and Operationalize** and specifically the "research when and how to use climate information in utility decisions and business practices" objective.

2017 Accomplishments:

- Met with EPA Region 4 water quality staff to discuss the information that would be useful to different states
- Revised survey questions to focus on reasons for water body impairment, which utilities/states are using existing CWA tools and if tools are currently providing sufficient flexibility

Next Steps:

- Continue to gather information on needed data by discussing with states
- WUWC will conduct a regulatory analysis of Endangered Species Act

Training Workshop with EPA (Laurna Kaatz and Keely Brooks)

In the spring of 2017, the EPA Water Security Division proposed working with WUCA to develop a technical training on planning for climate change uncertainty for water sector professionals. EPA offered to cover the costs to develop the two-day training material, and to provide logistics and planning support, while WUCA agreed to cover lunch costs (\$3,000). This initiative was not captured in the 2017 Work Plan and budget, but was considered an emerging opportunity that addressed the **Knowledge Transfer** strategic priority, and the "create effective mechanisms for information sharing among WUCA members and collaborators" objective. The three training objectives included:

- Enhance understanding of the capabilities and limitations of climate science and learn best practices for using it in water and wastewater utility adaptation planning and decision making;
- Learn about methods for addressing uncertainty when incorporating climate science into decision-making processes; and
- Gain communication skills needed to generate buy-in for investments in climate adaptation and resilience building activities.



2017 Accomplishments:

- Held training event in Boulder, CO on September 26 and 27
- 60 participants attended the training
- The 10-member training team are considered international experts in the field of climate science, water resource planning, and communication
- Developed the training agenda, materials, and logistics within six months

Next Steps:

- Develop lessons learned from first training experience
- Retool the training based on lessons learned and make repeatable in communities around the country
- Hold two training workshops a year

New Membership (Mohammed Mahmoud)

The objective of the WUCA New Membership effort was to consider the strategic addition of new member utilities, which addresses the **Sustain the Alliance** strategic priority. To that end, the WUCA New Membership committee was tasked with identifying candidate utilities for WUCA membership. After reviewing a list of nearly one hundred peer agencies, using criteria, including geographic diversity, the committee identified four top candidates for WUCA membership, and made a recommendation to add two new members.

2017 Accomplishments:

- Commenced WUCA membership recruitment for identified candidates
- Austin Water become a member and attended the 2017 midyear retreat
- Formally invited a second agency to become a member

Next Steps:

- Develop an Affiliate Program to promote continued engagement with other water utilities to foster climate adaptation collaboration opportunities

Midyear Retreat (Keely Brooks, Larna Kaatz, AMWA)

Every year WUCA staff meet during the summer to update each other on Work Plan progress and respective utility activities and to begin discussing the next year's Work Plan. In 2017, WUCA staff coordinated the midyear retreat with a specialty conference on climate change and water resources. This annual activity addresses the **Sustain the Coalition** strategic priority.

2017 Accomplishments:

- AMWA coordinated the midyear retreat logistics and came in under budget
- Hosted two guest speakers: Ed Dunlea (Madison River Group) and Dr. Kate White (U.S. Army Corps of Engineers)
- Featured presentation by newest member Austin Water
- Identified potential items for 2018 Work Plan



Next Steps:

- Confirm the need for a 2018 midyear retreat
- Plan the 2018 midyear retreat

CONCLUSION

WUCA addressed a diverse portfolio of projects in 2017 while also setting the stage for additional initiatives in 2018. Seven of WUCA’s ten projects were completed in 2017. WUCA will carry three other projects into 2018 as it adopts new Work Plan items. The coalition achieves the annual goals by convening at least monthly to provide progress updates on work items and share the latest information related to climate science and adaptation. WUCA will continue to pursue partnerships with other utilities and organizations interested in climate change impacts and will incorporate some of these efforts into its tenth anniversary celebration. WUCA will also return to San Francisco, where the Alliance was originally founded, in fall 2018 for its General Managers’ Retreat.