HOW ARE WUCA UTILITIES COMMUNICATING ABOUT CLIMATE CHANGE?

WUCA
Water Utility Climate Alliance

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Summary of findings from a Water Utility Climate Alliance communications survey

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INTRODUCTION

The mission of the Water Utility Climate Alliance (WUCA) is to collaboratively advance water utility climate change adaptation. The members of WUCA provide safe, clean, and reliable drinking water to nearly 50 million customers across the United States. WUCA is committed to climate change adaptation, sustainability, and resilience. The alliance works to understand and use the physical, social, and decision sciences relevant to climate change. Members collaborate with a variety of partners to responsibly prepare for and reduce the risks posed to water systems by climate change.

WUCA Member Utilities				
Central Arizona Project (CAP)	Denver Water (DW)	Metropolitan Water District of Southern California (MWD)	New York City Department of Environmental Protection (NYCDEP)	San Diego County Water Authority (SDCWA)
San Francisco Public Utilities Commission (SFPUC)	Southern Nevada Water Authority (SNWA)	Seattle Public Utilities (SPU)	Portland Water Bureau (PWB)	Tampa Bay Water (TBW)

The WUCA Strategic Plan identifies several goals and objectives related to communicating climate change to a range of audiences, including climate adaptation leaders, the research community, and other water utilities. However, climate staff in WUCA utilities are also engaged in communicating about climate change to ratepayers, the public and internal utility staff to "increase climate literacy within member utilities" (Strategic Plan 2017-2021).

In the interest of sharing knowledge about how members communicate about climate change, and what challenges they face in doing so, WUCA conducted a seven-question communications survey in 2016 as part of its annual work plan (see Appendix 1 for survey questions). In general, questions focused on how WUCAs communicate externally versus internally, what the key audiences are for each utility, which staff are involved in climate messaging and communications, and whether WUCAs deliberately use or avoid language to talk about climate change. Climate staff (and in some cases communications staff) from all ten member utilities responded to the survey. The summary below highlights several key findings from the survey that WUCAs may find useful as they continue to negotiate the emerging field of water utility climate change messaging.

KEY FINDINGS

The survey responses explained how each WUCA is approaching climate change communications in some detail. However, for learning purposes, this report describes the most interesting commonalities or disparate approaches that WUCA utilities are employing to communicate climate impacts to their water supply systems.

KEY FINDING 1: Many WUCAs do not address climate change explicitly in external communications, often incorporating it into other related messaging.

When climate change messaging is externally communicated to customers/ratepayers and the public, many WUCAs noted that they incorporate it into other messaging about drought, water conservation, water storage, extreme (rain) events, or climate variability (e.g. ENSO events). In situations when communications are trying to achieve a behavior change (e.g. reduce customer demand), most utilities highlight a current climate phenomenon (e.g. drought) that is tangible. Concerns about further supply reductions due to climate change tend to be implicit in these messages. In situations when communications are developed to educate the public via exhibits and presentations, then many utilities are more explicit in talking about climate change.

Several WUCAs noted how external climate change communications are irregular (e.g. CAP, MWD, NYCDEP, SFPUC, SNWA, PWB), or are in some cases not integrated into public messaging at all. This finding was unexpected, given that WUCA utilities strive to be leaders in assessing climate impacts to the water sector and are generating cutting-edge products and reports on the topic. It may be that many WUCAs have invested more in planning and analysis, and less in developing climate change focused messages.

However, three WUCAs who did explain how they use climate change communications as part of an organizational strategy are DW, SPU and SFPUC. DW's CEO talks about climate change as the utility's greatest challenge in every presentation he makes. Climate change is a major topic in SPUs Strategic Business Plan and customer review panels, and is regularly mentioned in the utility's annual water quality report. SFPUC describes climate change as part of the business case for infrastructure improvements and rate increases, and has linked it to the recent multi-year drought. These examples were the exception rather than the norm, as described in survey responses.

> "Our CEO talks about climate change in every speech he gives as it being one of our greatest challenges."
> - Laurna Kaatz, DW
>
> "The messages we are trying to convey relate to the need to repair and upgrade our infrastructure because it's old and it must face the future challenge of climate change. This is the same message that we give when talk about rate increases."
> - David Behar, SFPUC

Although not described in the survey, SNWA has also linked infrastructure improvements to the recent multi-year drought and increased risk of future droughts.

When asked if they are measuring the effectiveness of climate communications (arguably an important component in strategic communications), SNWA and SDCWA described how they conduct quantitative and qualitative analysis of communications via web visits, public opinion polls, focus groups, surveys, social media, internal work groups, and other tools. SDCWA acknowledged that its polls in recent years have not explicitly asked about climate change, and it seemed that the measures of success for both agencies are for their broader utility communications strategies, and are not climate-specific. DW has also included questions in its customer surveys about whether customers think they have enough information about how the utility is preparing for climate change.

The other WUCAs did not provide detailed information about measuring effective climate communications, but the lack of information on this survey question may be because it was mostly climate staff within the utilities who responded, not communications staff. Developing measures of success for climate communications may be an opportunity for future discussion among WUCA staff and their communications counterparts to mainstream climate change further into organizational strategies and messaging.

KEY FINDING 2: All WUCAs are very deliberate in choosing what language and terms are used in climate-related communications.

The main tools WUCAs use to externally communicate about climate change are utility websites, although several WUCAs also develop blogs, brochures or newsletter articles that are publically visible. Over half of the member utilities have some sort of climate related webpage (e.g. PWB, DW, SPU, NYCDEP, TBW). The title and content of these webpages are themselves educational about how a given utility has deliberately chosen language to describe the issue. Also some, but not all, utilities link the WUCA website to their own climate webpage (maybe all WUCAs should consider linking to the alliance website).

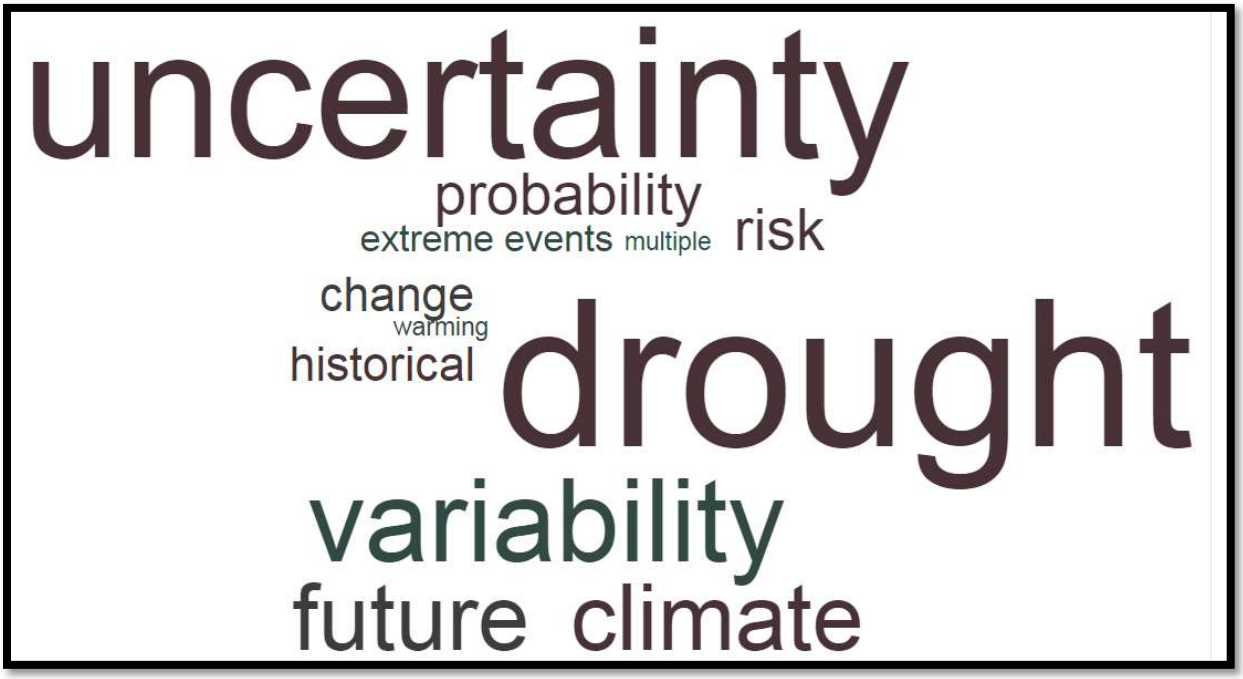
In terms of the language of communication, a handful of WUCAs use the term “climate change” explicitly. DW’s messaging on climate change seemed to be the most strategically articulated for the utility’s specific need. For example, DW has shifted its language from “climate change” to “climate warming” recently to emphasize its focus on the impacts of warming to climate and water systems. The utility also emphasizes that it is “planning for multiple futures” because “warming is here and now”. DW also specifically avoids using “probability” to talk about climate futures to acknowledge the range of uncertainty in these futures. As noted above, DW regularly incorporates the above climate messages into CEO and climate staff talking points.

PWB’s climate change webpage has a slideshow of key messages it has identified to share with customers and the public, mostly focusing on the resilience of the current water system, but

also describing how the utility is planning for climate change with scientists and with WUCA partners. PWB also used the record-breaking Northwest snow-drought of 2015 to describe the year as an indicator of future climate conditions in the region. This message was conveyed in blogs and in responses to media inquiries in 2015 (SPU used similar messaging in that year, although this was not noted in the survey response). PWB climate staff are also encouraging utility staff to avoid use of the word "normal" during hydrologic supply planning discussions and operational meetings, instead describing these as "historical average" conditions to start to create a narrative about a "new normal" (although this messaging strategy is still developing).

NYCDEP specifically refers to "climate change" when discussing extreme events and how the agency needs to prepare for them, noting that there is not much nuance used when talking about climate change. In planning reports and board communications, CAP uses the term "climate change" as a driver of drought that impacts water supplies for the agency, particularly the probability of shortage on the Colorado River. DW has shifted its language from "climate change" to "climate warming" recently to focus its message on the impacts of temperature increases to snow dependent water supplies. SPU also made a salient point that its climate staff can be more deliberate about climate messaging for oral presentations that staff are directly delivering, versus written communications materials from the utility. DW and PWB climate staff have a similar experience.

Figure 1: An example word cloud developed from several WUCA survey responses regarding the deliberate use of messaging. Terms like "drought", "uncertainty" and others featured more prevalently than "climate change" in survey responses, highlighting how many WUCAs are consciously choosing different language for communicating (Source: worditout.com).



On the other hand, some WUCAs deliberately avoid using the term "climate change", instead opting to use terms like "climate variability" (TBW) or "uncertainty" (SDCWA, MWD) on webpages or in other messaging tools. MWD mentioned that it is deliberate in differentiating risk due to a changing climate, drought, weather variability and uncertainty. SDCWA noted that the approach of using "uncertainty" terminology "helps to keep the focus on the potential risk impact itself and not on the specific driver variable".

> "Climate change is not the focus of the conversation. We frame the conversation that the climate is an unknown variable like population growth or changes to water demand."
>
> - Keely Brooks, SNWA

SNWA focuses its climate-related communications on demand management instead of climate change, and uses messages like "Stay Water Smart", "Using less means more", and "Get your head out of your grass" to remind the public about the persistent drought conditions that come with living in a desert.

The reason for avoiding the use of the term "climate change" in external messaging seems to be mostly for political reasons. These WUCAs seek instead to focus messaging on how the utility is planning for future uncertainties or managing risk (one of which is climate change), instead of describing climate change as the greatest risk or challenge (like DW).

It was not clear whether climate staff within these utilities prefer the approach of avoiding "climate change" terms, or whether there is interest in changing messaging within their utilities. This may be an area for further discussion among WUCA staff. The fact that many WUCA's avoid direct reference to "climate change" in external messaging may reflect the unique demographics and politics at the local and regional scale. Yet this does not deter the utility from being prepared for climate change through their collaborative membership in WUCA and through conducting assessments and planning.

KEY FINDING 3: Internal climate change messaging is where the action is.

WUCAs are investing a higher level of effort into climate change messaging within their utilities, presumably because WUCA climate staff exert more influence over internal messaging on the topic. The internal audiences include most utility staff, especially engineering, operations and finance staff, and Boards of Directors. Most WUCAs mentioned how climate change is communicated through a range of internal avenues: websites, blogs, staff presentations/brown bags, invited speakers, fact sheets, newsletters, one-on-one communications, employee handbooks, and work groups. Also, descriptions and analyses of climate change impacts on water supply are integrated into multiple WUCA supply planning documents and reports.

Several interesting comments came in response to the question: "Internally, do your engineers understand the shifting probability distribution that climate change creates?" MWD noted that

its water resource management staff has "incorporated alternative future climate distributions in its uncertainty planning studies". Similarly, SDCWA stated that "planning and engineering staff are aware of and understand the risks presented by multiple variables including climate change."

SPU remarked that some of its utility engineers understand that future conditions will be a departure from historic conditions, and SPU climate staff actively uses messaging around the concept that "stationarity is dead" and that what the utility has grown accustomed to for its built system "may not be what the future looks like".

> "I do think that the engineers I work with…think that we are headed towards conditions that are a departure from historic conditions"
> - Paul Fleming, SPU
>
> "The engineers understand the probability distribution concept, and the idea now is to convey that the safety margins that we had originally planned for may not be enough. We use messaging from trusted engineering sources to communicate this idea. It seems that when the message comes from a known source it has more traction with our engineers."
> - Kavita Heyn, PWB

DW and PWB are purposefully using their long-term supply planning processes as a targeted way to educate and engage utility engineers, operations and financial staff on the topics of future climate probabilities (or lack thereof!), and planning for uncertainties. SNWA staff has educated operations and engineering managers about the concept of changing risks to built infrastructure and is developing ways to make it a standard operating procedure.

Other WUCAs responded that they did not yet think that utility engineers understand the issue of changing probability distributions for future design standards or infrastructure planning. CAP noted that engineers in that agency do not deal with climate change in their projects as it is exclusively dealt with in the water supply planning department.

NYCDEP discussed how agency reservoir modelers understand the issue, but this is not something that is directly communicated as its own message (however, NYCDEP has applied the concept of increased future flooding to justify investing in wastewater resilience infrastructure). TBW has held some meetings with

> "Currently I am not aware that the engineering department looks at changes in probability at all. That is where we want to get them."
> - Tirusew Asefa, TBW

operations and engineering staff to share information about the agency's climate change work. Tailoring climate messages to utility engineers may be another area where WUCA staff can collaborate in the future.

KEY FINDING 4: Resources dedicated to climate change messaging are minimal in most WUCAs.

Most WUCA staff indicated that they are the main generator of "climate change" information and communication for their agency, and from the survey responses it was clear that most WUCAs have limited resources dedicated to developing or refining climate messaging. For example, NYCDEP focuses a lot of its climate messaging on other city agencies, but public affairs staff in the agency are typically not engaged.

Communications staff, PIO teams, or supply and planning program staff are involved to some extent in certain utilities. SDCWA mentioned that climate change discussions are coordinated between the public outreach and conservation and water resources departments. SFPUC climate staff work in concert with the utility's communications department for climate related messaging. SNWA seems to have the most resources dedicated to climate change messaging because of the presence of an internal climate change work group and the involvement of SNWA communications/PIO staff in supporting the WUCA website. Interestingly, SPU also indicated that it has involved consultants in climate change messaging.

It was not clear from survey responses if WUCA staff would like more support and resources in developing climate change messaging for external and internal communications purposes, and this may be a valuable area for further discussion.

AREAS FOR FUTURE DISCUSSION

It was evident from the survey responses that WUCA utilities prioritize and communicate climate change messaging in different ways. Given the complexity and diversity of WUCA utilities, their supply sources, and the political contexts within which they operate, it is to be expected that WUCAs will have different climate communications approaches. However, some common areas arose from the surveys that may be worth exploring with WUCA staff as a next step to this communications survey:

1. Discuss whether WUCAs could be doing more deliberate external climate messaging as a means to an end. Should WUCAs communicate more about the Alliance's climate work? What challenges could arise in WUCA-wide messaging due to discrepancies in how member utilities are communicating about climate change?

2. Understand if WUCA climate staff want more resources or support within their utilities to develop, share and widen their particular agency's climate change messaging, and

share examples of where WUCA staff feel they have sufficient resources for messaging or have been successful in developing climate change messaging for specific purposes. How can WUCA collectively work to increase climate change messaging opportunities within each utility, where feasible?

3. Discuss and identify measures of success which can be used to assess the effectiveness of external or internal climate change communications, in collaboration with some communications staff from WUCA agencies.

4. Develop and tailor climate change messaging that is focused on water utility engineers, operations and other staff, with the goal of changing views about future design standards and infrastructure planning to adapt to climate change.

5. Ask all WUCAs to link the main WUCA website to somewhere on their utility website (if this has not already been done).

APPENDIX 1: COMMUNICATIONS SURVEY QUESTIONS

1) External communications: Does your agency communicate about climate change publically on a regular basis? What resources do you use to communicate (e.g. website, outreach materials, media)? Do you have specific messaging that you use (e.g. "It's a desert out there" (SNWA) or "Climate change is water change" (DW))? If yes, what is the message trying to accomplish? (e.g. requesting change in behavior, education, justifying agency projects)

2) Internal communications: How do you communicate about climate change within your agency and what is your approach? What resources do you use to communicate (brown bags, fact sheets, presentations)? Do you talk about climate change in your internal newsletters or websites? Can you give specific messaging examples?

3) Who are the audiences that you focus on and why? What is your approach to communicate with different audiences?

4) Who is involved in developing climate change communications/messaging for your organization? (e.g. climate staff, PI staff, directors)

5) How deliberate are you in your use of language and what language are you using (e.g. climate change vs. drought, climate "risk", climate variability vs. climate change, uncertainty vs. range)?

6) Are you measuring the effectiveness of your communications? If so, how?

7) Internally, do your engineers understand the shifting probability distribution that climate change creates? If not, how do you communicate this internally? [this probably should be a strategic planning question]