



Leading Practices in Climate Adaptation

ENGAGE

Motivating action, engaging and supporting others, and developing climate messages

UNDERSTAND

Understanding climate science, your system, and your system's vulnerabilities, risks, and opportunities

Leading Practices

SUSTAIN

Monitoring conditions, developing funding, maintaining capacity, and managing expectations

PLAN

Planning for multiple futures and building capacity

IMPLEMENT

Acting to implement changes in assets and actions

JULY 2021

executive summary



While water utilities are highly adept at understanding and mitigating uncertainty, climate change enhances current challenges and adds new risks to already complex utility practices. Climate adaptation requires working across business functions and organizational silos, necessitating more integration and new tools. It benefits from collaboration across sectors, including businesses and suppliers, and among the utility, the city, and the region. Developing new approaches is not easy—nor is the work straightforward—yet **there is an incredible power in learning from and with each other.**

For more than 10 years, the Water Utility Climate Alliance (WUCA) has been at the forefront of strengthening the field of climate adaptation. WUCA members have uncovered ways to build adaptive capacity and incorporate new climate science into water management, planning, investments, and actions. To share what worked, WUCA has compiled climate adaptation practices that have been tested, leveraging WUCA members' experiences to build a shared knowledge base and illustrate not-always-clear directions forward. The goal is to make approaches for successful climate change adaptation easier to discover, understand, and navigate, and to help other utilities avoid having to recreate the wheel or invest in unnecessary efforts, thus saving time and money.

This collection of **leading practices in climate adaptation** covers a suite of climate adaptation actions and is intended to broadly promote collaborative learning. Each practice in the collection is explained and supported by concrete examples. These practices are drawn from WUCA work products and WUCA members' experiences, and, when possible, connected to relevant resources and related efforts. Most of these practices are appropriate for water utilities of any size, as well as other sectors interested in climate adaptation.



the leading practices collection

The Leading Practices Collection is introduced below as 39 leading practices. Each practice is placed within the five essential climate adaptation action areas. Several practices fit under two actions and are noted as such. More details and related resources for each practice are available at www.wucaonline.org/adaptation-in-practice/leading-practices, a platform designed for easy navigation and updating.

Action areas and leading practices are not prioritized. Instead, the most useful practices depend on the individual organization's needs and priorities.

ENGAGE

- [Recognize many ways to motivate climate adaptation action](#)
- [Seek out and support climate champions throughout your utility](#)
- [Consult expertise throughout your utility regularly and with purpose](#)
- [Tailor the climate adaptation message for the intended audience](#)
- [Develop a climate communications plan](#)
- [Include equity from the beginning](#)
- [Make the business case for climate adaptation](#)

UNDERSTAND

- [Invest in understanding climate science](#)
- [Explore how extremes might change in the future](#)
- [Value simple vulnerability assessments](#)
- [Foster sustained relationships with the climate science community](#)
- [Know your water system](#)
- [Think broadly about climate impacts](#)
- [Be a savvy consumer: recognize values and limits of climate science in practice](#)
- [Know your past climate conditions](#)
- [Recognize the value of long-term monitoring](#)

PLAN

- [Connect with ongoing or upcoming planning processes](#)
- [Leverage the power of well-placed climate change screening questions](#)
- [Be prepared to be changed by the process](#)
- [Learn from earlier climate change planning efforts](#)
- [Develop tools that allow information customization](#)

- [Take on climate change as another component of risk management](#)
- [Leverage existing funding mechanisms](#)
- [Plan for a range of futures, not a single future](#)
- [Employ decision-making science and deep uncertainty concepts](#)
- [Build and maintain in-house capacity](#)

IMPLEMENT

- [Be prepared to act when opportunities arise](#)
- [Find co-benefits and no- and low-regret adaptation strategies](#)
- [Recognize some adaptations can be employed quickly](#)
- [Recognize smaller changes can lead to bigger ones](#)
- [Focus on your organization's core responsibilities first](#)
- [Enact incentives or policies that change behavior](#)
- [Enact changes in infrastructure and operations](#)

SUSTAIN

- [Make the business case for climate adaptation](#)
- [Leverage existing funding mechanisms](#)
- [Monitor and evaluate current conditions](#)
- [Approach climate adaptation through mainstreaming](#)
- [Avoid new climate science whiplash](#)
- [Keep moving forward, even if it feels slow](#)
- [Value climate adaptation as more than a plan](#)
- [Establish a community of practice to integrate climate change adaptation](#)
- [Build and maintain in-house capacity](#)
- [Seek out and support climate champions throughout your utility](#)

In compiling these leading practices, WUCA learned several lessons that may help support climate adaptation practices within other organizations:



The process is often more important than the resulting plan. In this and other WUCA projects (e.g., engineering case studies, WUCA's *Building Resilience to a Changing Climate* technical training), the opportunity to encourage conversations (two-way, both listening and sharing) about climate adaptation within and across utilities was valuable. WUCA hopes this report's living-document design will continue to facilitate these types of conversations within and across water utilities and in other sectors as well.



The science will never be perfect, so learning about strategies for making decisions in the face of deep uncertainty is key to taking climate adaptation action.



The perfect can be the enemy of the good. Developing perfect climate adaptation actions may slow progress and prevent necessary learning. It is important to try different things to learn and adapt. The climate change adaptation landscape is also rapidly changing, so what gets developed may need to be revised sooner than anticipated.



Climate adaptation champions are integral to the success of most leading practices.



Adaptation is an iterative process. Essential climate adaptation actions and leading practices need to be re-visited over time as they continue to inform and support each other.



Utilities are seeking ways to improve their ability to mainstream climate change information into existing business functions.



Mainstreaming simultaneously allows for the identification of practical, relevant, and achievable adaptation solutions while also fostering internal champions.

FOR MORE INFORMATION

Download the full Leading Practices report at www.wucaonline.org/adaptation-in-practice/leading-practices

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the WUCA Leading Practices Committee and Aspen Global Change Institute.