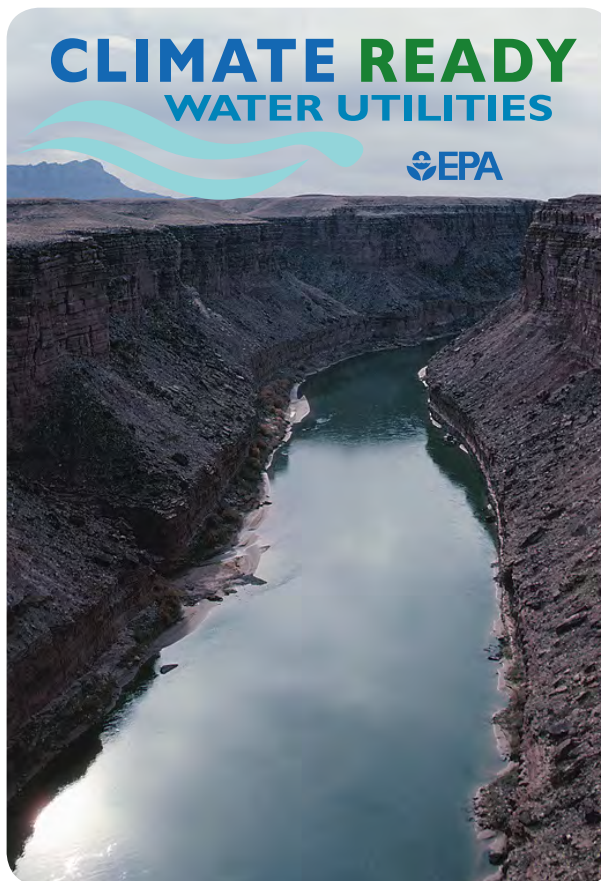


Is Your Utility Climate Ready?

Climate ready water utilities are those drinking water, wastewater and stormwater utilities that are engaged in the process of: conducting activities to better understand their climate risks; planning to address climate impacts; and implementing adaptation measures to reduce the consequences of climate change.



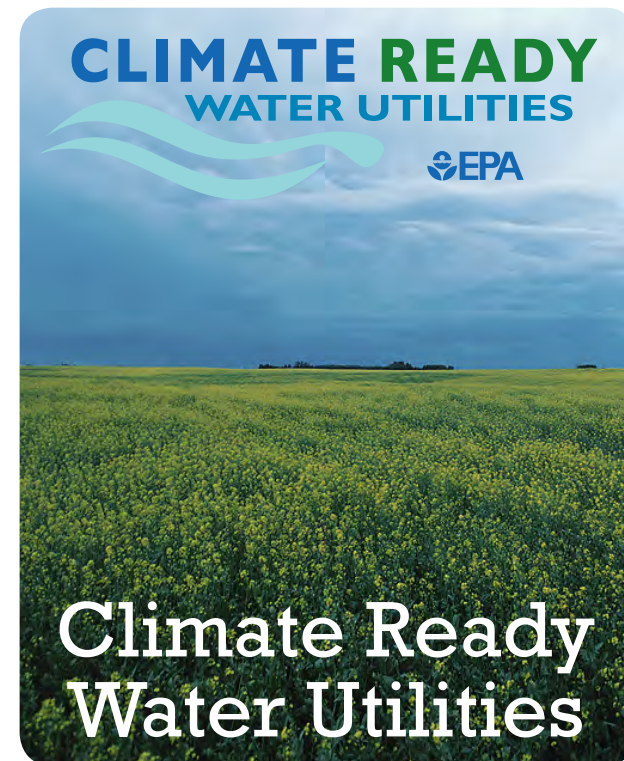
The steps a utility can take to become more Climate Ready are reflected in the CRWU Adaptive Response Framework, which is based on the findings in the December 2010 National Drinking Water Advisory Council CRWU Working Group Report.



For more information, contact
CRWUHelp@epa.gov

or visit

www.epa.gov/climatereadyutilities



The U.S. Environmental Protection Agency (EPA) developed its Climate Ready Water Utilities (CRWU) initiative to assist drinking water, wastewater, and stormwater utilities in becoming "climate ready." By providing valuable tools and resources for the water sector, CRWU promotes a clear understanding of climate science as well as adaptation strategies to help utilities develop more resilient water systems.

Climate change is important to consider in all aspects of utility operations and planning because it can impact both the water resources as well as the infrastructure necessary to provide clean and safe water. For the water sector, achieving "climate readiness" requires a comprehensive and adaptive approach that incorporates evolving climate science and local conditions, involves adaptation and mitigation strategies, and engages a broad range of water sector stakeholders.

CRWU Initiative: Tools and Resources

Climate Resilience Evaluation and Awareness Tool (CREAT)

A software tool designed to help utilities assess risks from potential climate change impacts on assets, operations, and missions and to develop adaptation plans to specifically reduce those risks. CREAT includes scenarios based on climate model projections of changes in average climate conditions, extreme precipitation events, and sea-level rise. CREAT also features:

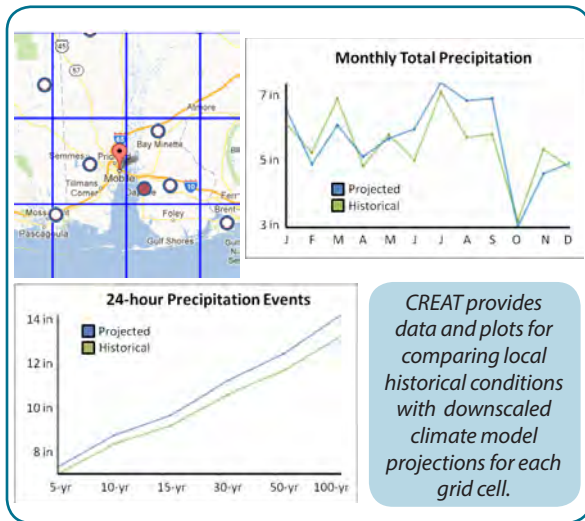
- Training videos, including information on climate model projections.
- The ability to design and compare adaptive measures based on potential risk reduction, costs, and energy implications.
- A series of reports that users can generate to help communicate assessment results and inform planning efforts.



Adaptation Strategies Guide

Serves as an introduction to climate change and adaptation planning for drinking water, wastewater, and stormwater utilities. Organized in a series of briefs, the Guide can be easily navigated, similar to clicking through pages of a website, to find climate information relevant to your utility and region. Suggested adaptation options for each climate change impact, links to related adaptation resources, and a planning worksheet are provided to help identify and organize adaptation options for consideration.

CLIMATE CHANGE IMPACTS		
Drought		<ul style="list-style-type: none"> Reduced groundwater recharge Lower lake and reservoir levels Changes in seasonal runoff & loss of snowpack
Water Quality Degradation		<ul style="list-style-type: none"> Low flow conditions & altered water quality Saltwater intrusion into aquifers Altered surface water quality
Floods		<ul style="list-style-type: none"> High flow events & flooding Flooding from coastal storm surges
Ecosystem Changes		<ul style="list-style-type: none"> Loss of coastal landforms / wetlands Increased fire risk & altered vegetation
Service Demand & Use		<ul style="list-style-type: none"> Volume & temperature challenges Changes in agricultural water demand Changes in energy sector needs Changes in energy needs of utilities



Extreme Events Workshop Planner

Designed for water sector utilities and communities, the Workshop Planner assists users in identifying how more intense and frequent extreme weather events can impact water resources. The Workshop Planner walks users through the process of planning and facilitating their own custom workshop focusing on one of five different extreme events: extreme flooding, extreme drought, sea-level rise, intense wildfire, and reduced snowpack. The Workshop Planner provides checklists, worksheets, and document templates that can simplify the planning process and guide implementation. The Workshop report provides utility and watershed partners with a foundation for adaptation planning and guide for future activities.

Toolbox

A searchable resource library that contains climate-related publications and tools to assist utilities in all stages of the planning and decision making process. Resources include:

- Reports, articles, and publications on climate change and water resources.
- Links to programs and information on funding for climate-related actions.
- Climate-related activities in government, academia, and the water sector.
- Upcoming events (including seminars, workshops, and training sessions).
- Models and tools for incorporating climate change impacts into water resource management.

Awareness

Adaptation

Mitigation

www.epa.gov/climatereadyutilities

Policies

Community

Partnership