

Building Water Utility Resilience Using EPA's CREAT

CREAT: A Risk Assessment Tool for Water Utilities

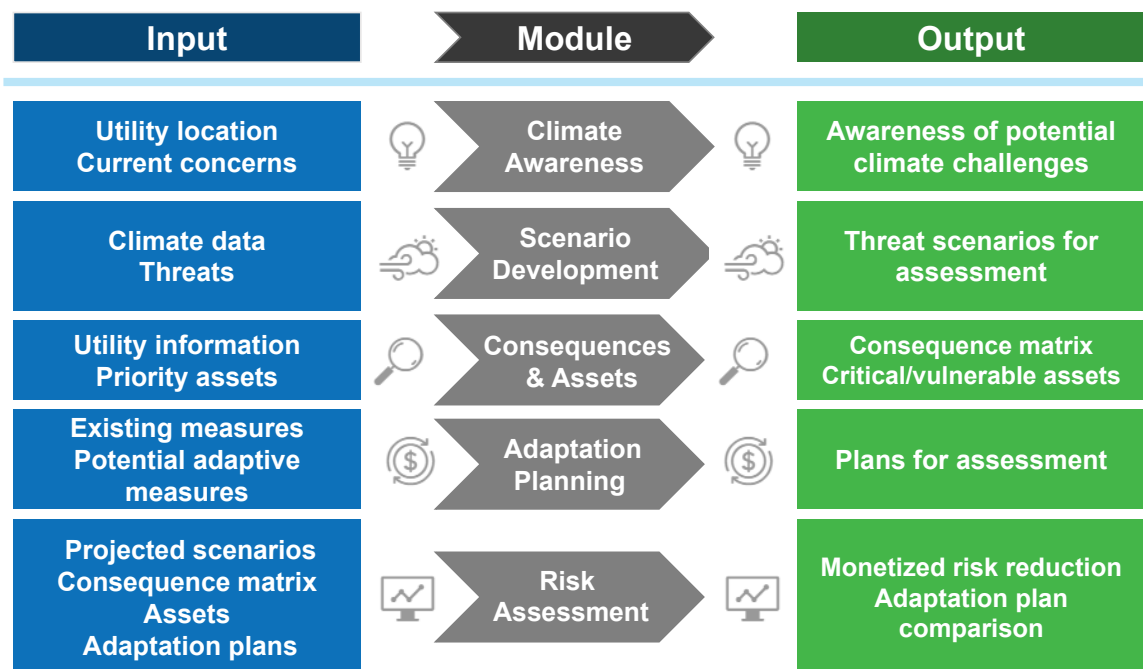
Extreme weather events, sea-level rise, shifting precipitation patterns, and temperature changes affect water quality and availability. Managing these events will pose significant challenges to water sector utilities in fulfilling their public health and environmental mission.

EPA's tool, CREAT, developed under the Creating Resilient Water Utilities initiative, assists drinking water, wastewater, and stormwater utility owners and operators in assessing risk from these events.

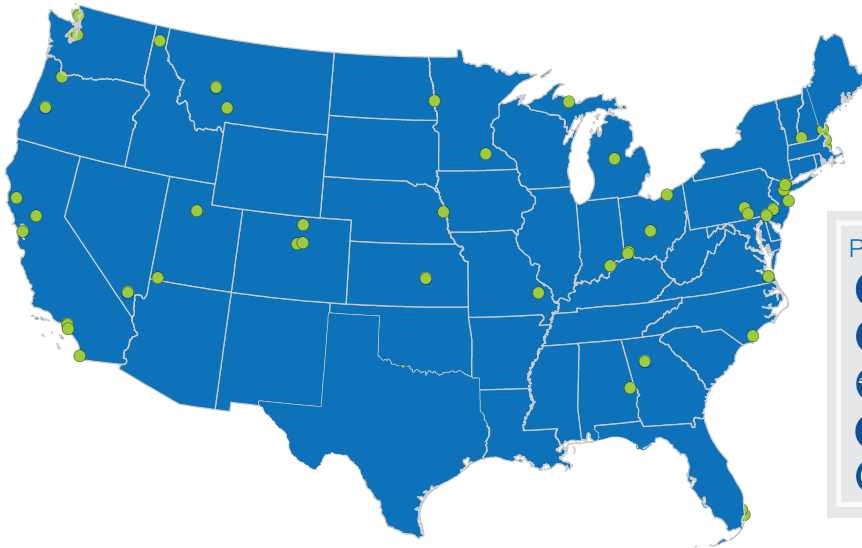


CREAT...

- Provides a flexible and customizable risk assessment framework
- Organizes available historical and projected climate data
- Guides users through a process of identifying threats, vulnerable assets, and adaptation options
- Supports utilities in considering impacts at multiple locations, assessing multiple climate scenarios, and documenting the social and energy use impacts of adaptation measures
- Informs decision-making as users compare the performance of adaptation options in multiple time periods across climate scenarios



Conducting a Facilitated CREAT Exercise



EPA has collaborated with several water utilities across the country to help improve resilience through facilitated CREAT exercises. Each exercise demonstrates CREAT's capabilities to assess diverse

Priorities for Water Utilities

-  Water Quality
-  Service Reliability
-  Flooding
-  Drought
-  Ecosystem Changes

challenges and provides a solid foundation for utilities to build upon and fully assess both their long-term needs and potential performance of resiliency projects and strategies.

What does a CREAT exercise require from utilities?

Recognizing partner utilities' significant time constraints, EPA makes the process as efficient as possible and provides substantial facilitation support throughout each exercise. Utilities are typically asked to provide a lead that spends around 35-40 hours to serve as a point-of-contact, participate in webinars and coordinate the on-site visit. Other staff and experts (such as hydrology modelers, engineers, and treatment plant managers) may spend 5-15 hours collecting data and providing feedback on meeting notes and the final report. The total process takes 4 to 6 months, depending on the frequency of meetings and availability of utility staff and local partners.

What is the CREAT exercise process?

