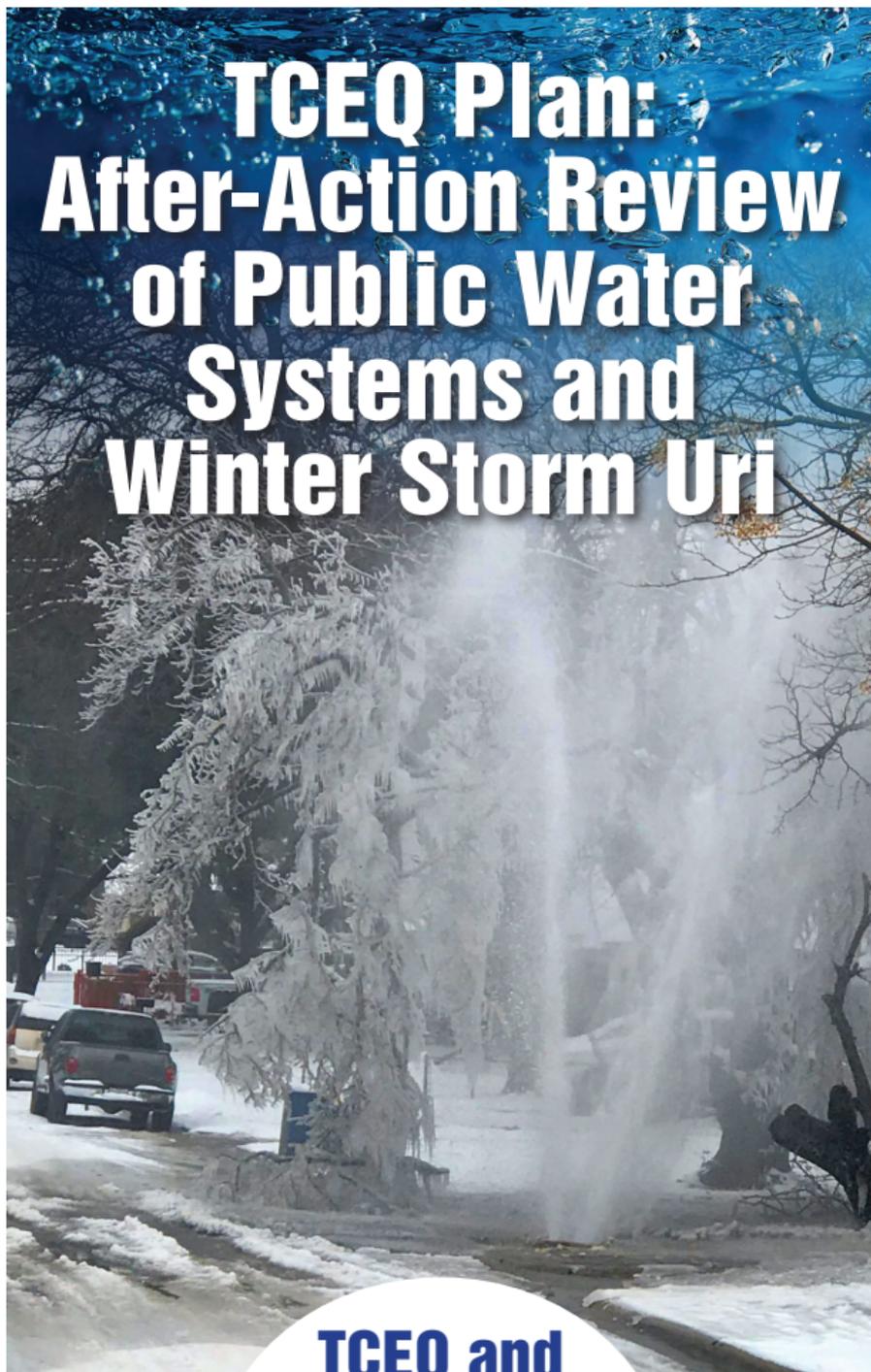


TCEQ Plan: After-Action Review of Public Water Systems and Winter Storm Uri



TCEQ and Public Water Systems

TCEQ is charged with ensuring that public water systems provide safe and adequate drinking water. We oversee more than 7,000 public water systems that provide drinking water to approximately 29 million Texans.



Of that number, 4,647 are community public water systems, which serve drinking water to people all year-round, such as residential consumers.

(Top) Water Main Break courtesy of Dallas Water Utilities via AWWA.

(Left) Discharge Valve courtesy of Canyon Lake WSC.

Boil Water Notices

Nearly 40% of Texas' 4,647 community public water systems issued a boil water notice during this storm event.



**Systems under
Boil Water Notice**

1,985

(Peak Date, 2/19/21)



**Population under
Boil Water Notice**

16,351,788

(Peak Date, 2/18/21)

Of the 1,985 systems that issued a boil water notice during the storm event:

1,103 (55%)

are subject to regulations requiring emergency power or preparedness plans



1,545 (78%)

are small systems that serve a population of less than 3,300

Of those 1,545 small systems, 888 (57%) serve a population of less than 500.

Systems issue boil water notices as either a precaution or notification to protect their consumers when an unexpected condition causes the potential for biological contamination of drinking water. During this extreme weather event, several conditions existed that impacted the systems' ability to treat and/or distribute water which led to issuing these notices, including:

- Loss of power
- Loss of pressure
- Damaged equipment
- Dangerous road conditions



(Top) Building courtesy of City of Houston. (Middle) Frozen Flow Splitter box courtesy of Dallas Water Utilities via AWWA. (Bottom) Manifold courtesy of Canyon Lake WSC.

TCEQ After-Action Review

We are conducting an “after-action review” to evaluate the factors that impacted so many public water systems—of all types—during this storm.

THE GOAL:

Improve public health and safety by developing response and recovery actions that mitigate risks posed by catastrophic weather-related events.

THE PLAN:

- Engage public and private sector stakeholders to discuss a variety of topics—such as:
 - ▼ case studies and lessons learned
 - ▼ adequacy of emergency power resources and other critical infrastructure
 - ▼ evaluation of system design standards relating to weatherization
 - ▼ rules and regulations on system resiliency
 - ▼ equipment inventory and maintenance procedures
 - ▼ facility resource and staffing needs
 - ▼ conservation during times of high customer demand
 - ▼ chemical and fuel supplies
 - ▼ communication pathways during the event
 - ▼ alternative sources for water supply and distribution
 - ▼ boil water notice procedures
 - ▼ agency response and assistance efforts
 - ▼ functional exercises on emergency response plans and Utility National Incident Management System Certification
- Collect information to gain a deeper understanding of the challenges faced by public water systems due to the emergency.
- Evaluate the resources in place to assist systems in increasing their resiliency.

METHODS TO GATHER INFORMATION:

- Survey public water systems
- Conduct round-table discussions across the state
- Research rules and current literature
- Host resiliency workshops and training at the agency’s annual Public Drinking Water Conference in August 2021 (attracts around 1,200 participants each year)

Project Timeline

- The agency’s commissioners tasked staff on March 3, 2021, to conduct the review and present them with monthly updates.
- The project plan was presented at the March 31, 2021 commissioners’ agenda meeting, marking commencement of the project.
- The timeline to complete the analysis is approximately 12 months.



(Left) Gate Valve courtesy of Canyon Lake WSC. (Right) Water line break courtesy of Dallas Water Utilities via AWWA.



(Left) Photo courtesy of City of Houston. (Center) Back-flow prevention assembly courtesy of City of Houston. (Right) Pressure pump courtesy of Canyon Lake WSC.

Project Outcomes

After compiling the information learned during the process, staff will present to the commissioners:

- findings and suggested recommendations to assist public water systems to prepare for, respond to, and recover from seasonal hazards that can impact their water system.
- recommended actions that we can take to assist in enhancing the resilience of public water systems and our response to assist them during these types of catastrophic events.