



January 19, 2023

KUB Blueprint



Blueprint Background

- Established in 2014 as part of strategic planning process
- Endorsed by the Board in September 2014
- Embraced by the workforce, but in need of an update:
 - New areas of emphasis – Fiber, DEI efforts
 - Focus on the most important and impactful elements
 - Simplify and streamline for ease of use

Major Components of Updated Blueprint

Key Concepts Remain:

- Trust/Stewardship
- Service orientation
- Customer focus
- Reliability/Affordability/Safety
- Ethical behavior
- Investments in the environment and the community
- Continuous improvement

Key Concepts Added:

- Fiber optic services
- Diversity, equity, inclusion, and belonging for all
- Decision making that considers all perspectives

Key Concepts Removed:

- Performance measures
- Keys to success

KUB | BLUEPRINT



Our **Vision**

KUB creates connections and enhances the quality of life in our East Tennessee communities so everyone can thrive.

Our **Mission**

KUB exists to serve its customers as a trusted partner and steward, providing industry-leading energy, water, and fiber optic services.

We **Value**

Our **Customers**

- Our services are safe, reliable, and affordable
- We are committed to great customer service
- Our decisions consider everyone's needs

Our **Co-workers**

- We put safety first and take care of each other
- We take pride in our hard work and expertise
- We invest in our people

Our **Community**


- We are committed to a cleaner environment
- We are personally invested in our community
- We help our region grow

Our **Culture**

- We always do our best and strive for better every day
- We hold ourselves to high ethical standards
- We value diversity, equity, inclusion, and belonging for all


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Resolution 1472

- Provides Board endorsement of updates to the Blueprint
- Directs President and CEO to communicate Blueprint to employees and align KUB's operations and initiatives

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KNOXVILLE
UTILITIES BOARD



January 19, 2023

Annual Disclosures



Background of Ethics Policies

- Pre-2000: City Charter, Resolution 1, general state law
- 2000: Conflict of interest added to By-laws
- 2005: Employee Conflict of Interest Policy and required annual disclosure
- 2006: TN State Ethics Commission established
- 2007: Board adopted Ethics Policy
- 2012: By-laws ethics section updated
- 2013: Annual disclosure requirement adopted

Ethics Policy Components

- Aligns with governing statutes and guidelines
- Certifies compliance with ethical standards
 - Political activity
 - Nepotism
 - Gifts and gratuities
 - Personal and financial interests
 - Improper use of position or authority
 - Improper use of KUB time, facilities, and equipment
- Requires disclosure if a conflict exists

Annual Disclosure Form

- Form included in today's agenda packet
- Annual disclosure occurs in January
- Return forms before end of January

KNOXVILLE UTILITIES BOARD COMMISSIONER CONFLICT OF INTEREST FORM

COMMISSIONER INFORMATION

Name		
Home Address		Unit #
City	State	ZIP
Business Name		
Address		Unit #
City	State	ZIP

DISCLOSURE STATEMENTS

Please initial beside each true statement. Provide a detailed explanation on the next page for any untrue statement.

1	My residence is within Knox County limits.
2	I do not have a nepotism conflict as defined by Article X, Section 1016 of the City of Knoxville Charter. ¹
3	Other than my position as KUB Commissioner, I am not a Public Official as defined by Section 1102 of the City of Knoxville Charter ² nor am I an employee or a retiree of an energy, water or wastewater utility, energy company, telecommunications utility, or any other utility service provider.
4	I do not have a personal interest or work for a business or entity which has a financial interest in any business relationship with KUB other than the purchase of utility services as defined by Section 2 of the KUB Ethics Policy (see attached policy).
5	I have not directly or indirectly accepted any money, gift, gratuity, or other consideration or favor of any kind from anyone other than KUB for the performance of an act or refraining from performance of act in the regular course of my duties as a KUB Commissioner.
6	I have not disclosed any confidential information obtained in my capacity as a KUB Commissioner other than as authorized or required by law.
7	I have not used or disclosed information obtained in my capacity as KUB Commissioner in a way that resulted in financial gain for myself or any other person or entity.
8	I have not used or authorized the use of KUB time, facilities, equipment, or supplies for private gain or advantage to myself or any other private person or entity.
9	I have not made any private purchase in the name of KUB.
10	I have not used my position as a KUB Commissioner to secure any privilege or exemption for myself or others not authorized by the Charter, general law, resolution, by-law or policy of KUB.
11	I have not accepted or continued any employment that unreasonably inhibits the performance of any affirmative duty of my position as KUB Commissioner or that conflict with any provision of the KUB Charter, any KUB Resolution, Bylaw or policy.

¹ Charter Article X, Section 1016 says, "No officer or employee elected or appointed by the council, the board of education, the civil service merit board, the Knoxville Utilities Board, or any appointing authority or administrative officer shall be related to any of said members of the council, the board of education, the civil service merit board, the Knoxville Utilities Board, or any appointing authority or administrative officer controlling or having a vote or voice in the election or appointment of said officer or employee within the third degree, either by affinity or consanguinity."

² Public Official shall mean any person who is an elected official or an employee of the City of Knoxville or any municipality, county government, or state government except for notary public, a member of the National Guard of the State of Tennessee, or employee of public education.

Tennessee Open Meetings Act

- Applies to public body with authority to make decisions or recommendations to a public body
- Requires
 - Adequate public notice
 - Minutes recorded and open to public
 - All decisions or deliberations toward a decision discussed in open meetings
 - Public votes

Tennessee Public Records Act

- Applies to all records, regardless of physical form or characteristics, made or received during KUB's course of business
- Resolution 1358 established KUB policy
- Provisions include:
 - Processes for making and responding to request
 - Naming of public records coordinator
 - Making policy available on website

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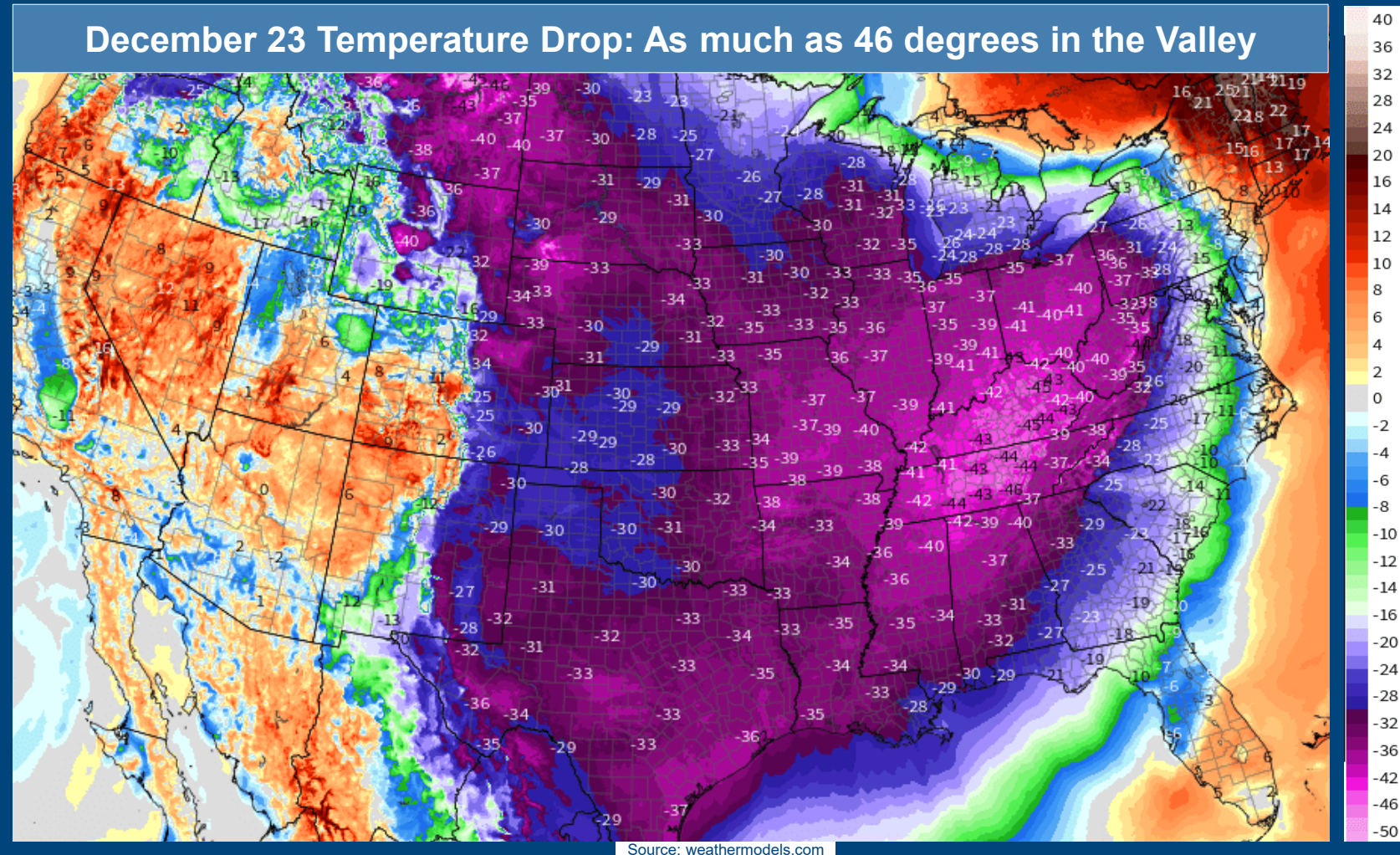
January 19, 2023

December 2022 Extreme Cold Weather Event



Winter Storm Elliott Impacted Over 60 Percent of U.S.

- Regional extreme cold weather event
- TVA forecast had surplus generation available
- TVA (and others) experienced challenges they did not anticipate
- TVA conducting after-action review, including distributors

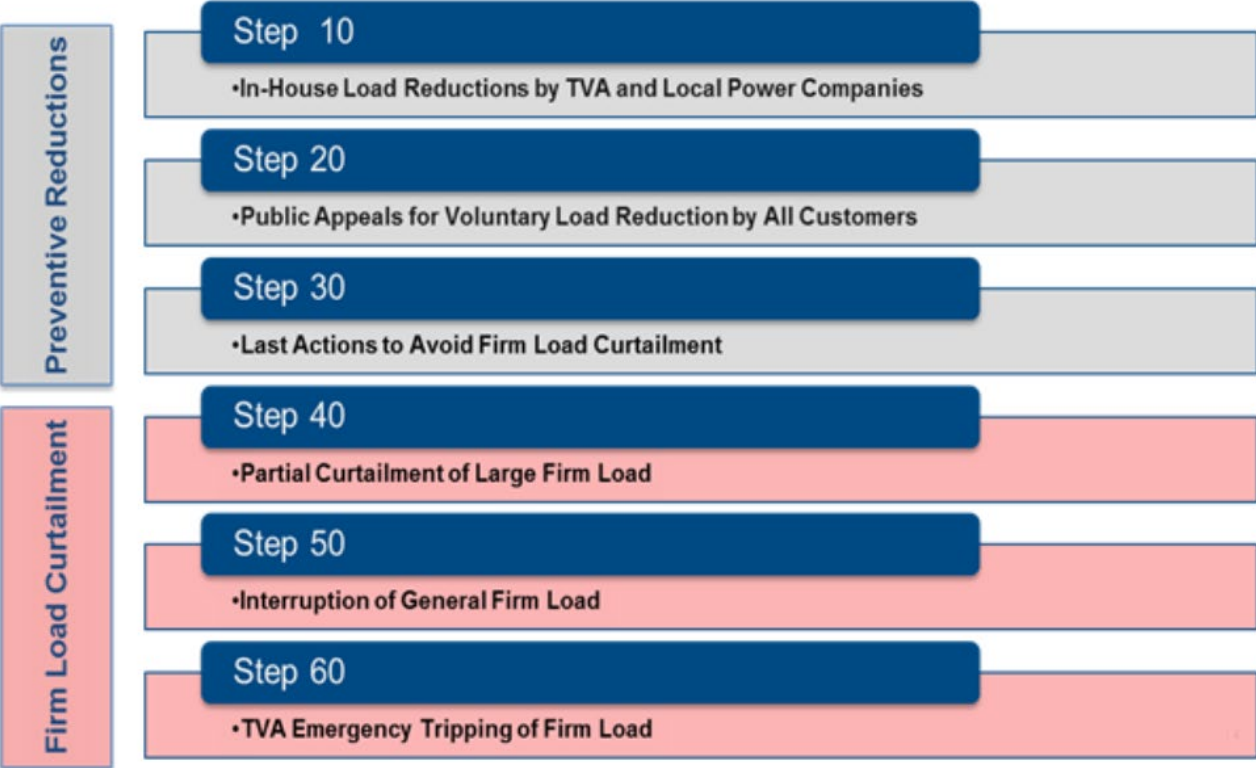
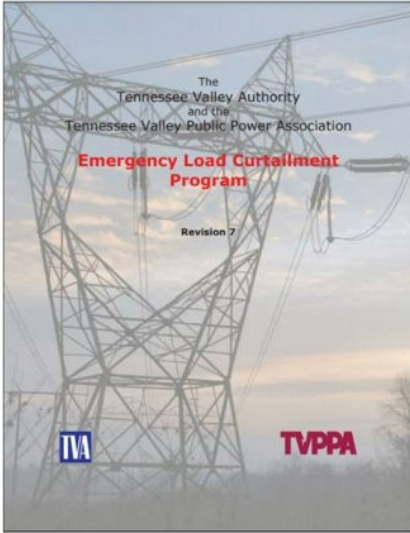


KUB Systems Also Impacted - Performed Well

- Natural gas
 - System performed well
 - New peak at 169,458 dth
- Electric
 - Tree-related outages due to wind gusts
 - No other unusual impacts
 - TVA required curtailments
- Wastewater
 - No unusual impacts
- Water
 - Increased plant demand
 - System also performed well

Extreme Weather Planning and Preparedness

- Conducted typical storm planning
- Anticipated implementation of Emergency Load Curtailment Plan (ELCP)
- Coordinated with TVA for ELPC Steps



Timeline of Events

Wed 12/21

- KUB preparation meeting for holiday weekend

Fri 12/23

- TVA begins ELCP Step 10 at 9:13 a.m.
- TVA begins ELCP Step 50 (5%) at 10:31 a.m.

Sat 12/24

- TVA begins ELCP Step 50 (5%) at 5:50 a.m.
- TVA begins ELCP Step 50 (10%) at 6:11 a.m.

Thu 12/22

- TVA reports LOW Probability of Curtailment

Fri 12/23

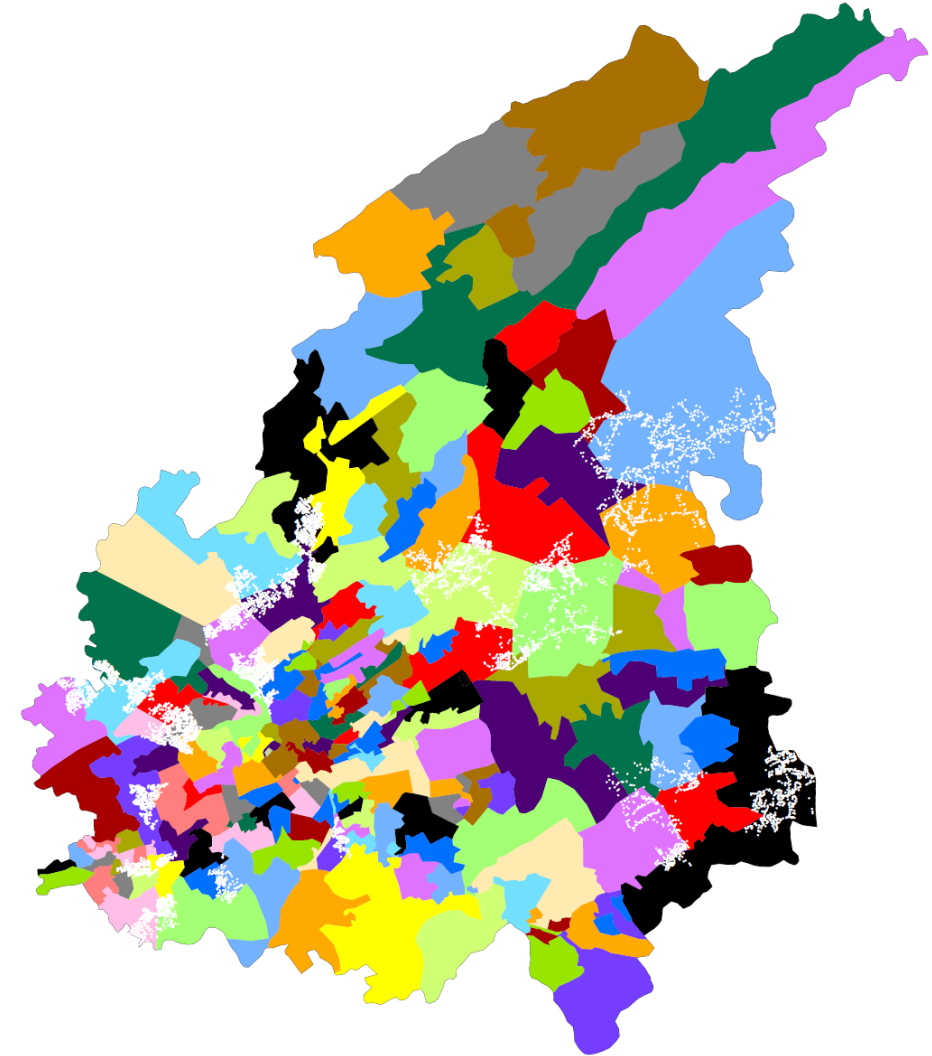
- KUB executes load curtailment between 10:30 a.m. and 12:30 p.m.

Sat 12/24

- KUB executes load curtailment between 6 a.m. and 11:30 a.m.

Impact to KUB Customers

- 172,000+ customers impacted
 - 15-minute max outage
 - No more than three cycles per block
- Duration of rotating 15-minute outages
 - Friday, 12/23 – 2 hours, 11 min
 - Saturday, 12/24 – 5 hours, 33 min
- Daily Peak Demands
 - Friday, 12/23 – 1,294 MW
 - Saturday, 12/24 – 1,238 MW



Century II Programs Played Key Role in Success

- SCADA provided System Operators to remote control devices
- Substation modernization including breaker replacement
- Preventative maintenance programs for substations

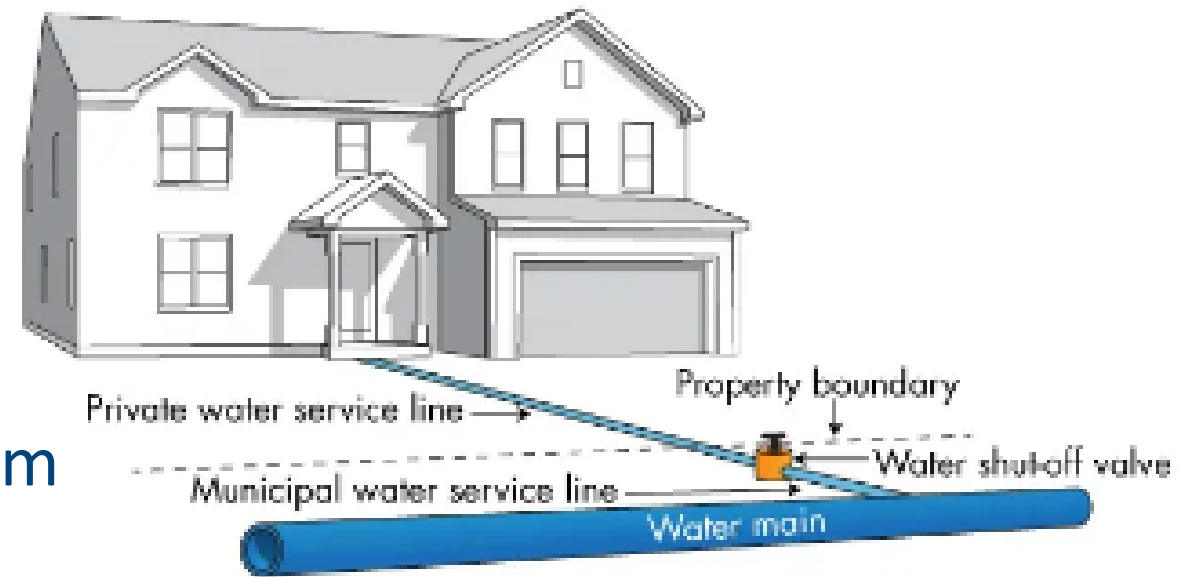


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Extreme Cold Weather Causes System Impacts

- Extreme cold impact:
 - Treatment
 - Mechanical assets
 - Distribution system piping
- Longer duration and lower temps = increased impact
- Delayed effect on the distribution system
 - Main breaks
 - Customer piping breaks
- Maintaining water pressure is critical



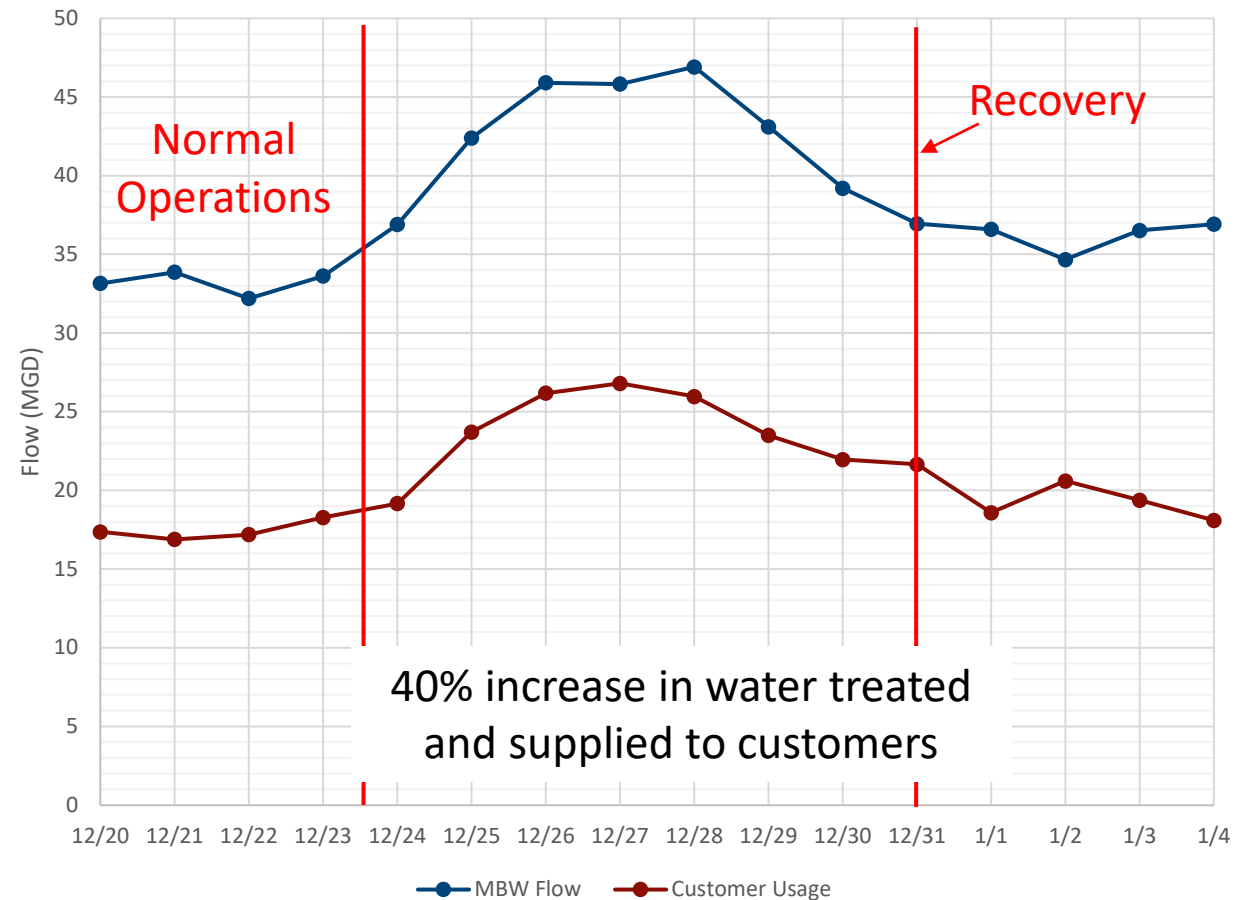
Optimizing Operations through Century II

- Century II benefits
 - Replacing pipes
 - Maintaining and optimizing pump stations and tanks
 - Implementing network calming
 - Installing smart devices
- Event-specific cold weather prep
 - Winterized above-ground assets
 - Changed operational parameters
 - More focused system monitoring



Leveraging Technology for Response

- Three key data points:
 - Plant water output (SCADA)
 - System flows (DMA)
 - Customer usage (AMI)
- Both water output and customer usage tracked to ~40% increase
- DMAs showed system-wide increases
- Majority of water loss on customer side
 - 1,346 orders completed
 - 1,000+ made calls to customers



System Performance and Recovery

- No major disruptions to water service
- No pressure loss concerns
- Fewer main breaks than previous events
 - 119 main repairs (January 2018)
 - 36 main repairs (December 2022)
- Assisted over 1,500 customers
- System flows returned to normal by Dec. 31



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Inspiring Woman of Wastewater Award



Leslie Glover Named 2022 Inspiring Woman

- Aquafix Inc. awards innovation and dedication of women in wastewater
- Leslie Glover received 2022 award
 - Over 17 years of KUB laboratory and wastewater experience
 - Industrial Pretreatment Program Coordinator
 - Emerging Contaminants and Regulations Team leader
 - Key regulatory compliance resource



“Although working in this field can be challenging, it is also very rewarding. We get to work with – and for – our community, and we get to go home every day knowing that our work has contributed to protecting the health and welfare of our customers and the environment.”

-Leslie Glover

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American Public Power Association Smart Energy Provider Designation



American Public Power Association (APPA) Smart Energy Provider (SEP)

- Recognizes commitment to energy efficiency, distributed generation, renewable energy, and environmental initiatives
- Approximately 31 utilities recognized nationwide in 2022



**SMART
ENERGY
PROVIDER**

American Public Power Association



Pictured L to R: Chasity Hobby, Patrice Townsend (APPA SEP Panel Interim Chair), Tiffany Martin, Cortney Harris, Rachel Southard, Anna Freshour

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