ENVIRONMENTAL POLICY INNOVATION CENTER

Water Utility Regulatory and Policy Considerations

Denise Schmidt
Director, Funding Navigator Program

August 16, 2024

Water utility governance and oversight

EPA's drinking water system classification

- A **public drinking water system** provides water for human consumption through pipes or other constructed conveyances to at least 15 service connections or serves an average of at least 25 people for at least 60 days a year.
- System type
  - **Community Water Systems** supply water to the same population year-round.
  - **Non-Transient Non-Community Water Systems** regularly supply water to at least 25 of the same people at least six months per year
  - **Transient Non-Community Water System** provide water in a place where people are not present for long periods of time

System size

- **Very Small:** 25–500 people
- **Small:** 501–3,300 people
- **Medium**: 3,301–10,000 people
- **Large:** 10,001–100,000 people

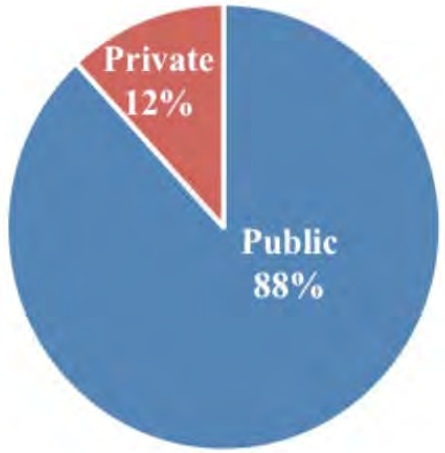
(Mis)classification of water systems in the United States: Implications, analysis, and a proposed typology

Janice A. Beecher, Kyle Redican, Megan L. Kolioupoulos
June 1, 2020

Water utility governance

- The vast majority of the nation's public water systems are governmentally-owned.
- Cities, counties, villages, districts, etc. are the shareholders.
- Some **utilities**, regardless of ownership type, own and operate multiple **systems**.
- Stormwater is typically managed by either a municipal wastewater utility or public works department.

Percent of National Population Served by Private vs Public Community Water Systems

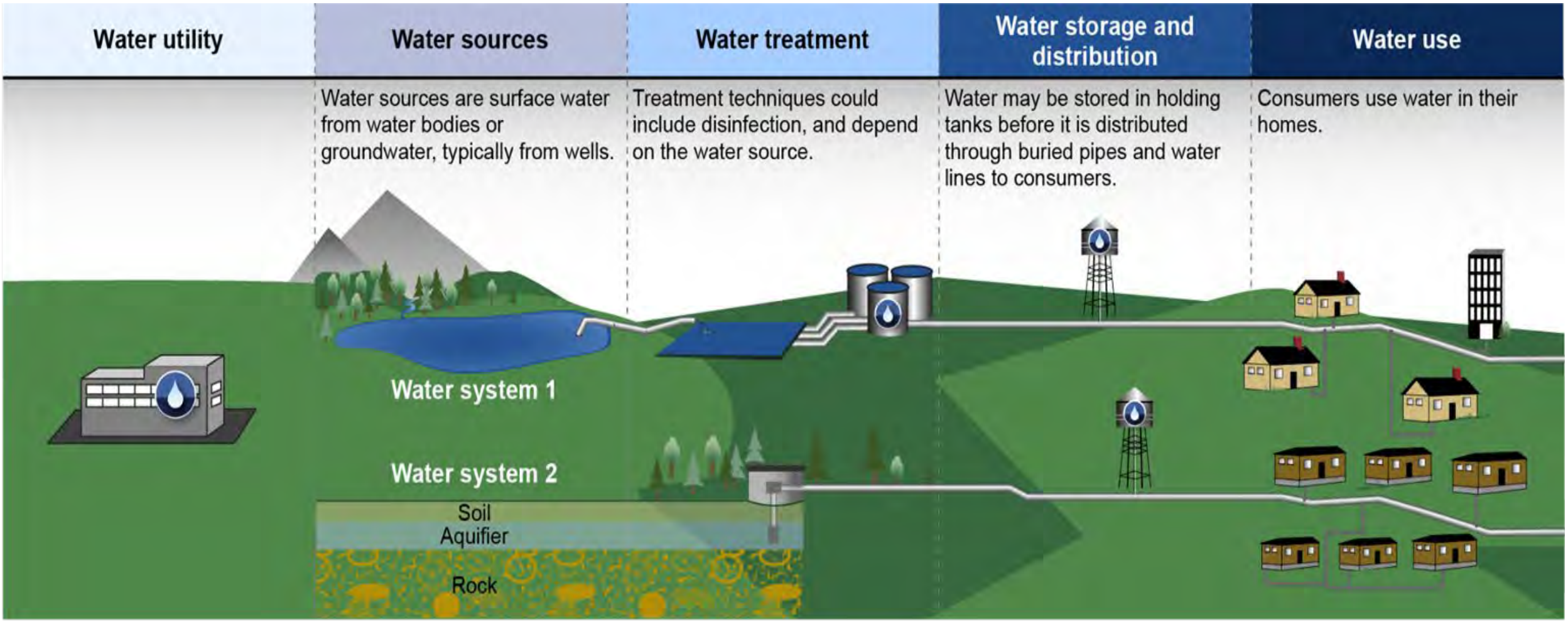


Source: University of North Carolina Environmental Finance Center, "Public vs Private: A National Overview of Water Systems," The Environmental Finance Blog, October 19, 2016.

What GAO Recommends

GAO is making two recommendations, including that EPA define all utility ownership types in SDWIS and verify and correct this data as needed. In written comments on the report, EPA generally agreed with both recommendations.

Source: gao-21-291



Source: GAO analysis of Environmental Protection Agency information. | GAO-21-291

Who's making decisions about my water service?

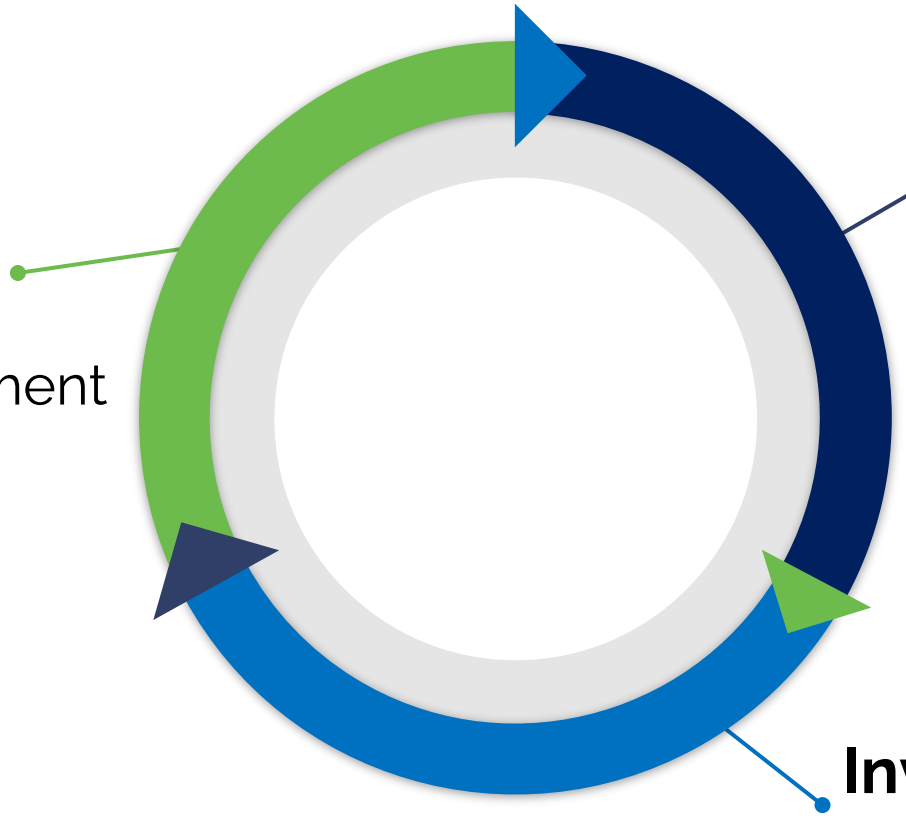
Governmentally-owned utilities

- City council, town board, other elected body
- Utility board
- Regional authority
- Several of the above

Privately-owned utilities

- Board of directors/owners
  - Investor-owned entity
  - Developer-owned
  - Manufactured housing
  - Coop, neighborhood association, etc.

What are those decision makers discussing?



Rate-setting

- Revenue requirement
- Cost allocation
- Rate design

Performance

- Regulatory compliance
- Emerging issues
- Consumer protections
- Level of service
- Financial stability
- Risks and opportunities

Investments & Operations

- Construction projects and associated funding/finance
- Operational changes
- Organizational changes
- New programs

Utility accountability: Ensuring public health, safety, and welfare

GREENWIRE

Gift article

Watchdog: 'Inadequate oversight' led to Jackson, Miss., water crisis

The inspector general faulted state regulators for inaction and poor enforcement ahead of the 2022 disaster.

BY: KEVIN BOGARDUS | 08/13/2024 01:32 PM EDT

- **Federal Clean Water Act (CWA)**
  - Establishes structure for regulating: discharges of pollutants into waters of the US.
  - Establishes quality standards for surface waters.
  - Applies to industrial, municipal, and other pollutant discharges.

ECHO
Enforcement and Compliance History Online

- **Federal Safe Drinking Water Act (SDWA)**
  - Identifies and specifies limits for **primary contaminants** that may adversely impact public health and **secondary contaminants** that may adversely affect the odor or appearance of water and lead a substantial number of customers to discontinue its use,
  - Applies to all **public water systems**

SDWIS Federal Reports Search

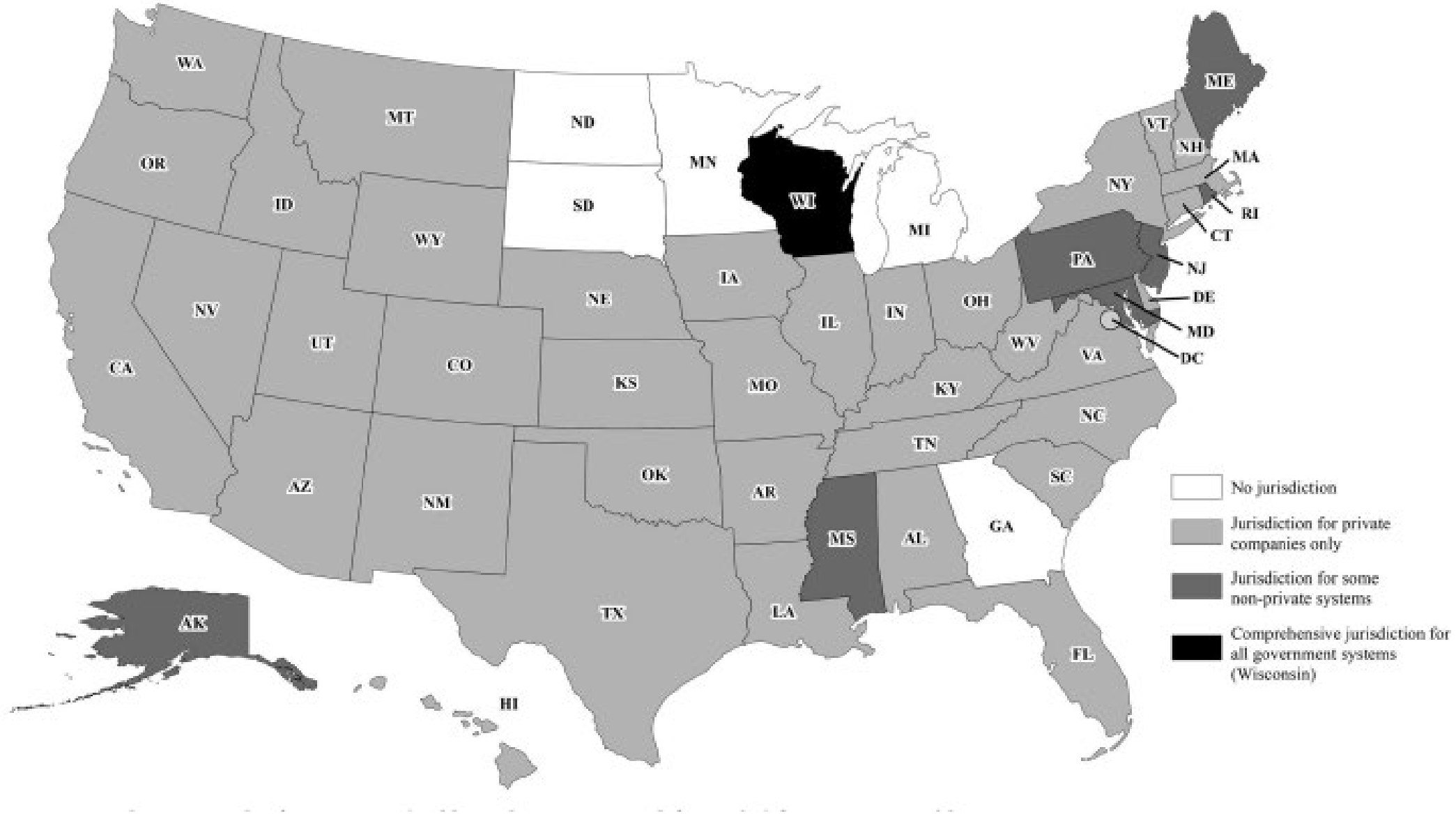
EPA's Capacity Development Program

- Created under the Safe Drinking Water Act (SDWA) Amendments of 1996.

- States must:
  - Have a program to **ensure all new systems demonstrate TMF** with respect to national primary drinking water regulations.
  - Have a **strategy to assist public drinking water systems** in acquiring and maintaining TMF.
  - Consider TMF when providing loans from the **Safe Drinking Water Revolving Loan Program**.

EPA United States Environmental Protection Agency

Utility accountability: Economic regulation



Source: https://www.canr.msu.edu/michiganpolicyguide/uploads/files/11-21%20waterecon%20beecher%20final.pdf

The Commission regulates electric, natural gas, telecommunications and water utilities **to ensure that Maine consumers enjoy safe, adequate and reliable services at rates that are just and reasonable for both consumers and utilities.**

The purpose of the Public Service Commission is to **ensure fair and prompt regulation** of public utilities; to provide for adequate, economical and reliable utility services throughout the state; and to appraise and **balance the interests of current and future utility service customers with the general interest of the state's economy and the interests of the utilities**.

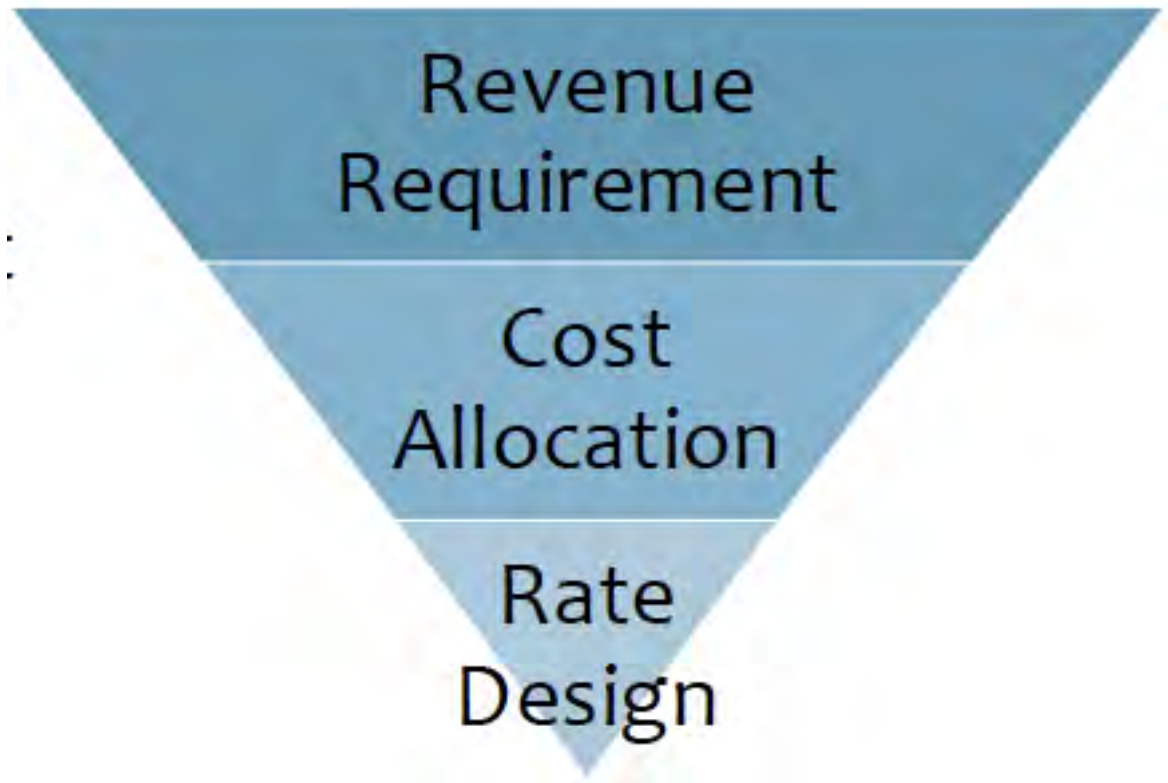
IN.gov Indiana Utility Regulatory Commission

The Indiana Utility Regulatory Commission (Commission) is an administrative agency that hears evidence in cases filed before it and **makes decisions based on the evidence presented in those cases. An advocate of neither the public nor the utilities**, the Commission is required by state statute to make decisions in the public interest to ensure the utilities provide safe and reliable service at just and reasonable rates.

The Commission also serves as a resource to the legislature, executive branch, state agencies, and the public by providing information regarding Indiana's utilities and the regulatory process. In addition, Commission members and staff are actively involved with regional, national, and federal organizations regarding utility issues affecting Indiana.

Rate-setting basics

Rate-setting: Three steps



The revenue requirement: What's in my rates?

Annual revenue requirement for most governmentally owned utilities =

DS + O&M + PILOT (sometimes) + reserve (sometimes)

Annual revenue requirement for most privately owned utilities =

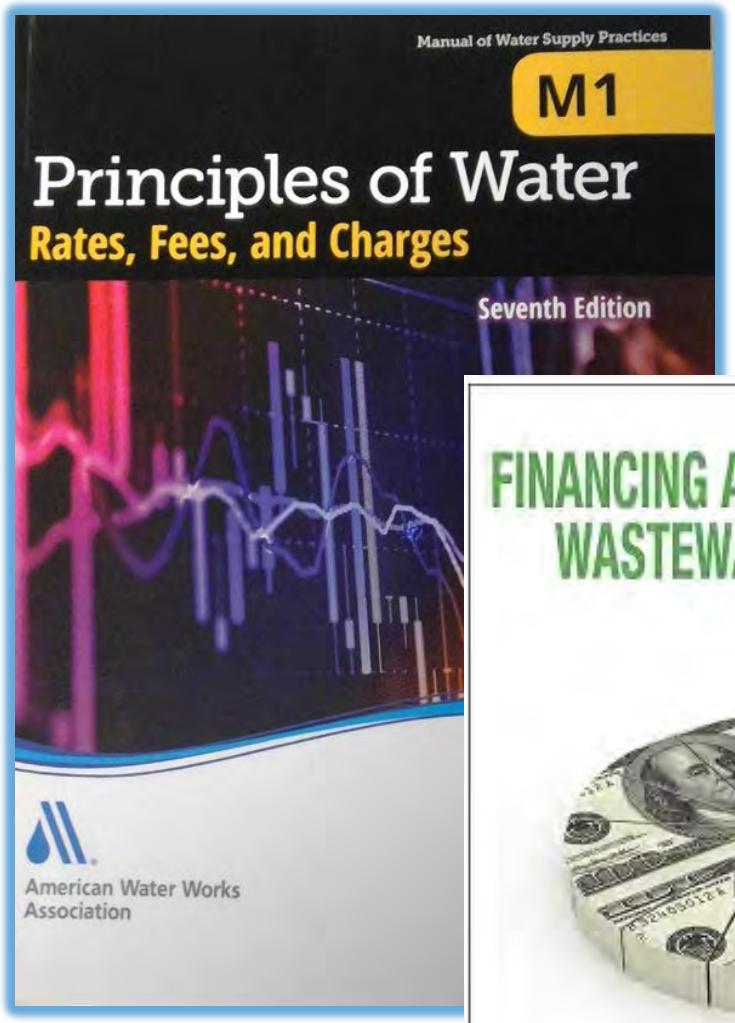
r(RB) + O&M + D + T

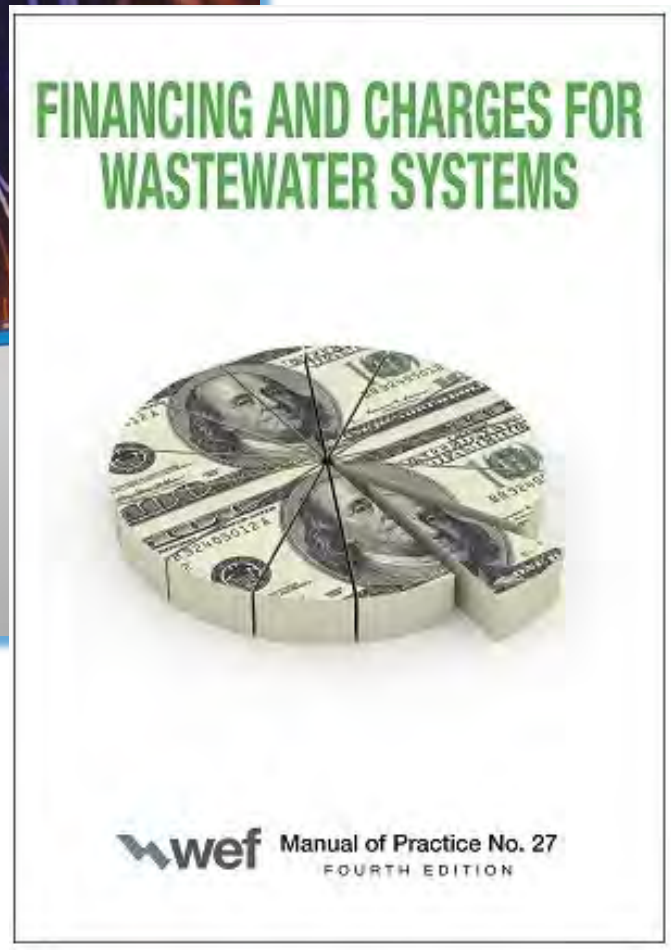
Where:

DS = Debt service requirments
O&M = Operation and maintenance expense
PILOT = Payment in Lieu of Taxes
r = Authorized rate of return
RB = Rate base consisting of the original cost of utility plant in service minus accumulated depreciation and adjustments
D = Depreciation expense
T = Taxes

Rate-setting principles

- AWWA and WEF
  - Global nonprofit technical and educational organizations.
  - Diverse memberships of utility managers, scientists, engineers, finance professionals, regulators, academics, operators, and other professional of water supply professionals in the world.
  - Provide education, advocacy, knowledge sharing, business opportunities.
  - Create volunteer opportunities.
  - Committees responsible for updating manuals of practice.





AWWA Policy Statement on Financing, Accounting, and Rates*

1. Do not implement any policy or practice that compromises the **long-term financial integrity of the utility or its ability to provide safe, high quality, and reliable service** to customers.

2. **Adopt a Uniform System of Accounts** following procedures outlined by the industry and in compliance with regulatory, legislative, and judicial requirements. Adopt robust internal controls and management controls to guide and strategically align decisions and resources.

3. **Collect sufficient revenues** to finance all operating/maintenance expenses and capital costs.

4. **Rates should be based on cost and avoid subsidizing customers.** Non-cost of service rate-setting practices that achieve affordability objectives may be appropriate in some situations.

**Source: https://www.awwa.org/Policy-Advocacy/AWWA-Policy-Statements/Financing-Accounting-and-Rates*

AWWA Policy Statement on Financing, Accounting, and Rates, cont.

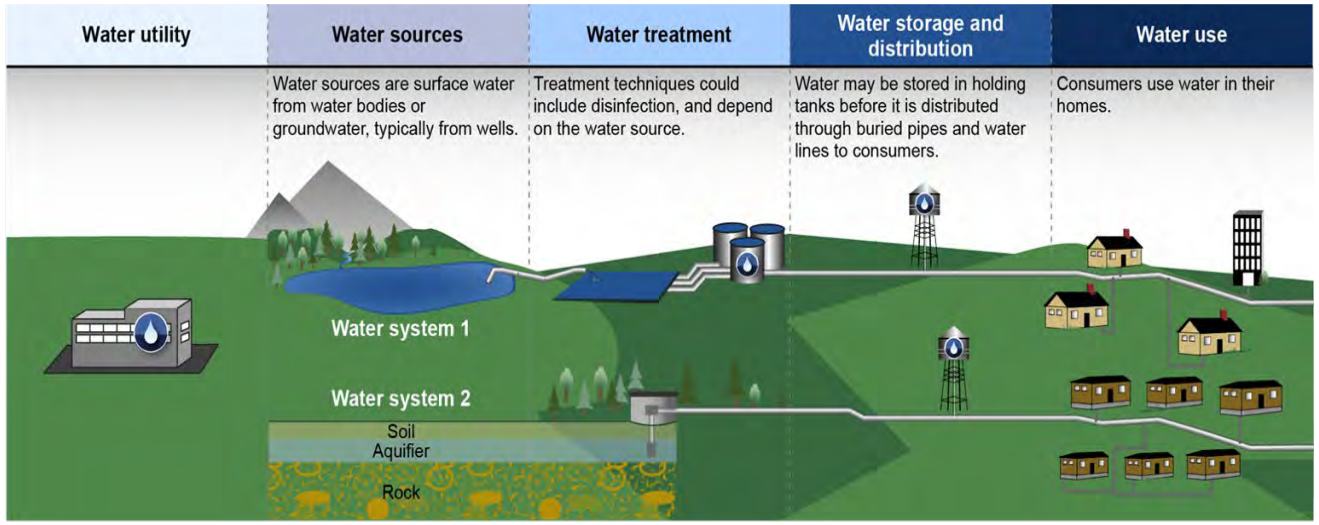
5. Utilities should **provide information annually about the utility's financial condition** and the revenues necessary to provide service and maintain utility assets on a sustained basis.
6. **Maintain accounts separate from other governmental or owning entity operations**. Do not divert revenues for non-utility purposes. Reasonable taxes, payments in lieu of taxes, and payments for services rendered to the utility by a local government or other divisions of the owning entity may be included in the utility's revenue requirements after taking into account the contribution for fire protection and other services furnished by the utility to the local government or to other divisions of the owning entity.

**Source://www.awwa.org/Policy-Advocacy/AWWA-Policy-Statements/Financing-Accounting-and- Rates*

“Adopt a Uniform System of Accounts” - AWWA

Account 342 Distribution Reservoirs and Standpipes:
“This account shall include the cost of reservoirs, tanks, standpipes, and appurtenances used in storing water for distribution. “

- Bridges and culverts
- Clearing land
- Dams
- Embankments
- Fences
- Foundations
- Gates and gate houses
- Landscaping
- Lighting systems
- Piping system within reservoirs
- Retaining walls
- Roads and paths
- Rust-proofing apparatus
- Spillways and channels
- Standpipes
- Tanks
- Towers
- Valves and appurtenances
- Valve vaults and houses
- Water level control apparatus



Source: GAO analysis of Environmental Protection Agency information. | GAO-21-291

“Collect sufficient revenues to finance all operating/maintenance expenses and capital costs.” - AWWA

Are Utilities that Need to Raise Rates Actually Raising Rates?

MARCH 2, 2017 / SHADI ESKAF / 0 COMMENTS

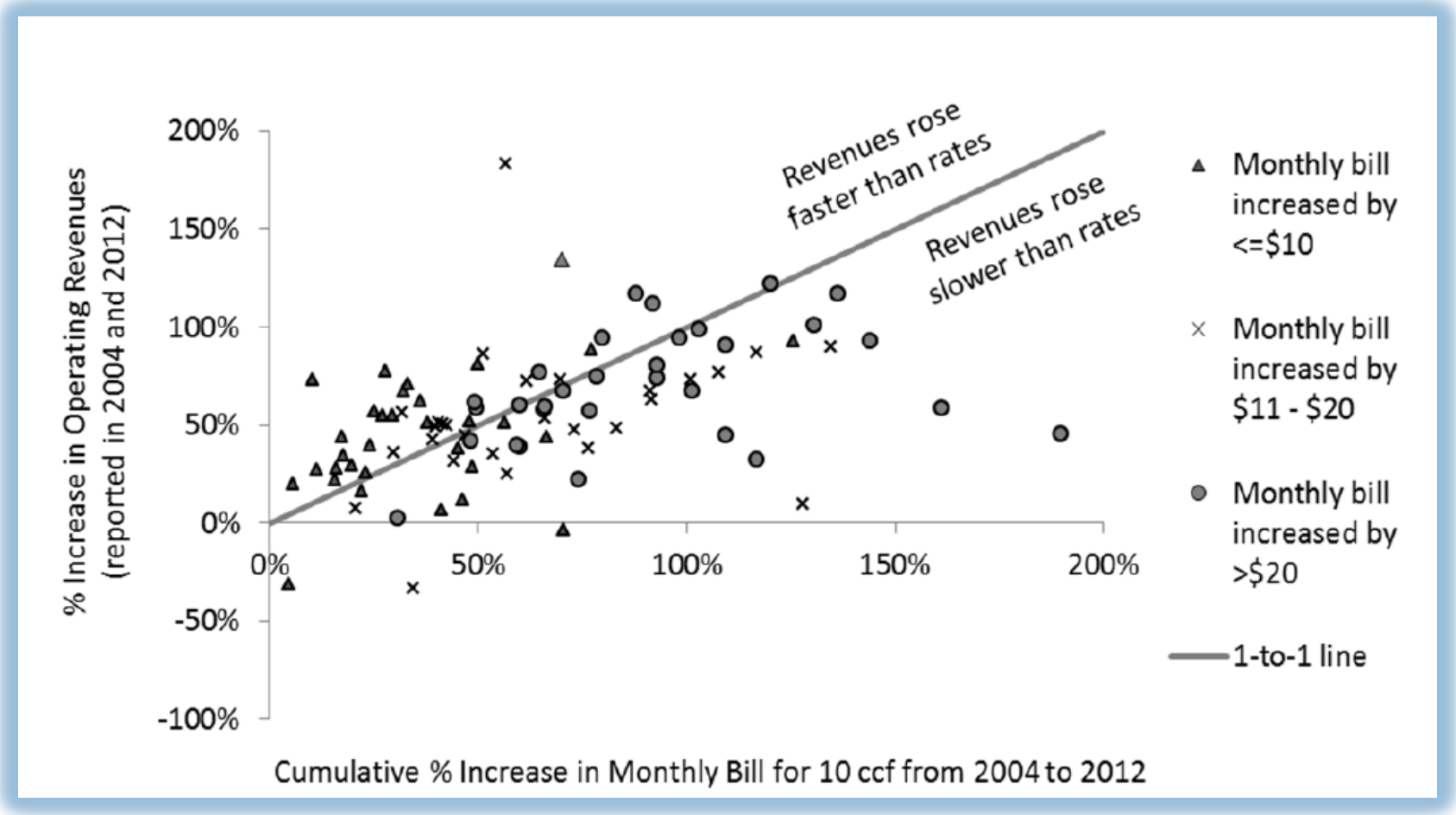
Print PDF

at happens if a water utility collects less in revenues than it pays in enditures in one year? It will raise some alarms, but some utilities might be e to weather that shortfall by dipping into their reserves and bounce back the owing year. But what happens if a water utility collects less in revenues than ays in expenditures in *three consecutive years*? That is probably a strong cation that the rates it is charging its customers are too low. Assuming that expenses cannot be significantly reduced, a rate increase is almost certainly necessary. So are utilities in this position raising rates the following year, or are

Published on The Water Blog

Money for nothing: The lack of revenue is the real impediment to financing water

May need to increase frequency of rate cases to recover prudently incurred costs.



Some options

- Rate phase-ins
- Abbreviated process to allow for smaller, inflationary adjustments

Source: "Defining a Resilient Business Model for Water Utilities," Water Research Foundation

Example: Rate case options

Conventional Rate Case

- Revisit cost allocation, rate design, billing frequency, other tariffs
- Recover construction or extraordinary O&M expenses on timely basis
- Typically requires a hearing
- Takes longer to process

Simplified/Inflationary Adjustment

- Keeps existing cost allocation, rate design, billing frequency, other tariffs
- Allows financially healthy utility to keep pace with inflation
- Short, simple application
- Shorter processing times
- Hearing required?

Financially distressed utilities

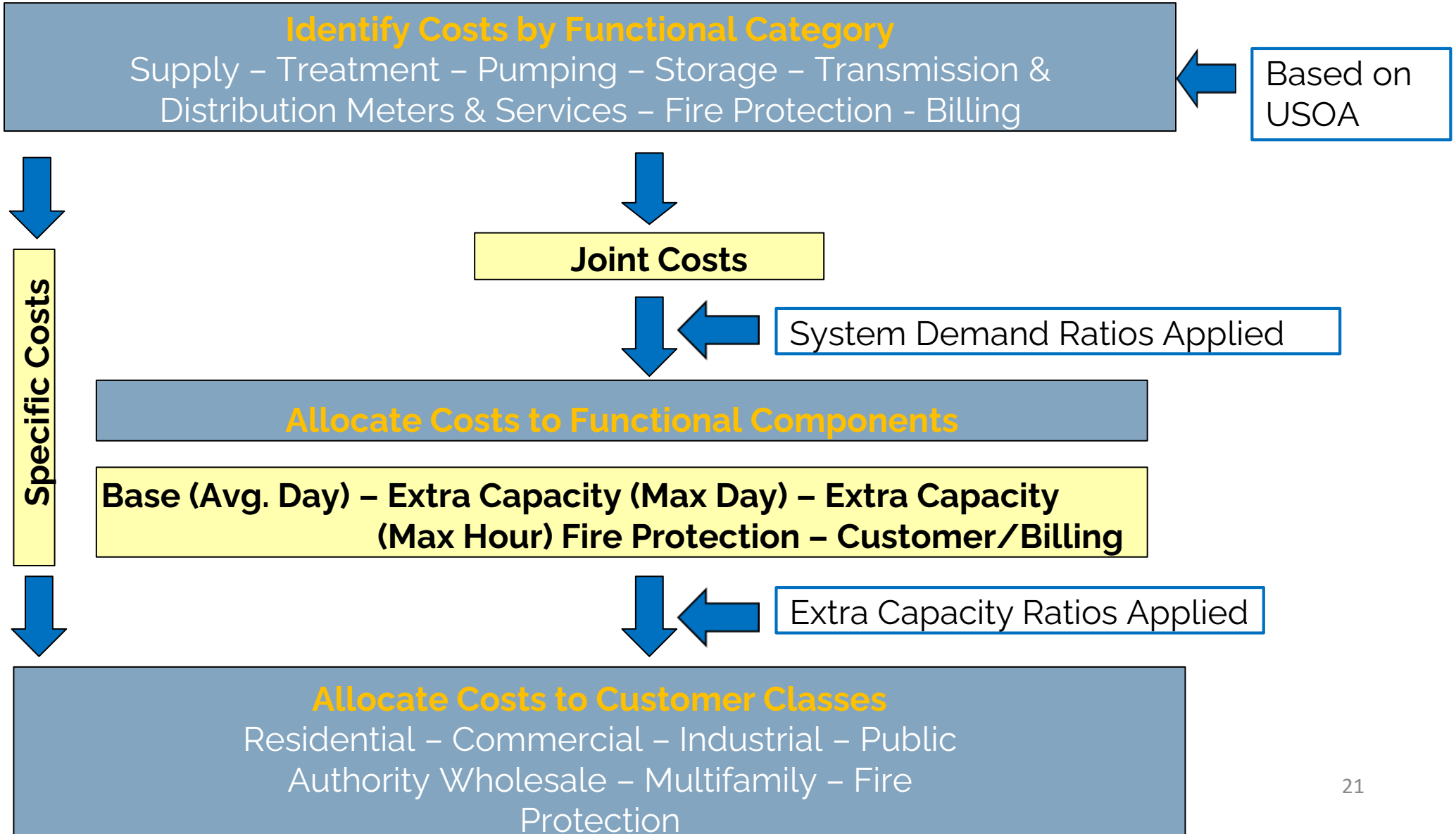
- Some states have legislation or programs to identify financially distressed utilities and specify corrective actions
  - Through public utility commission
  - Through state primacy agency
  - Through other state agency (local government commission, state comptroller's office, etc.)

“Rates should be based on cost and avoid subsidizing customers.” - AWWA

Customer classes

- Residential – Single Family
- Residential – Multifamily
- Commercial
- Industrial
- Public Authority
- Irrigation (high peak demands)
- Wholesale
- Raw Water (excludes treatment costs)
- Individual Customer – typically a large industrial customer with either very high or very low peak demands

Cost allocation under base-extra capacity method



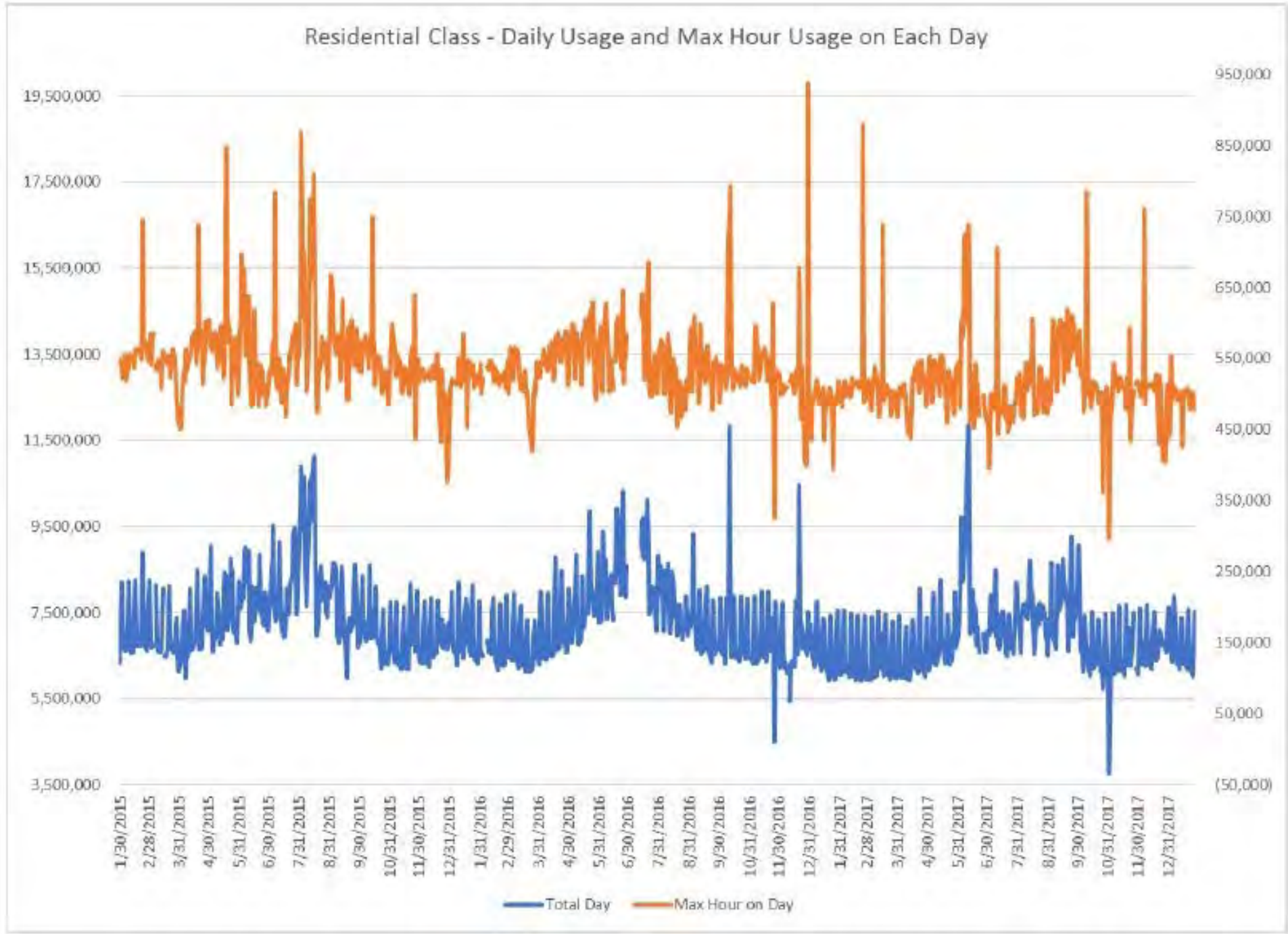
Customer cost allocation: customer demand ratios

- How/when do different customer classes use the water system? How do their respective **use profiles** impact the operations and capital investments of various system components?
- Intended to ensure costs are allocated based on relative burdens classes place on system. This is sometimes referred to as **equity between customer classes.**
- Helps inform development of **customer class-based rates**.

Max Day	Current Case	Past Case	Average
Res	1.60	1.77	1.60
MF Res	1.40	1.66	NA
Com	1.74	1.82	1.30
Ind	1.66	1.73	0.80
PA	1.83	2.38	1.30

Max Hour	Current Case	Past Case	Average
Res	1.97	2.20	3.80
MF Res	1.33	2.24	NA
Com	1.91	1.77	3.40
Ind	1.34	1.93	1.60
PA	2.36	4.28	3.50

Non-Coincident/ Coincident Ratio		Preferred Range	
Max Day	0.93	1.1	1.4
Max Hour	1.08	1.4	1.7


Residential Class - Daily Usage and Max Hour Usage on Each Day
19,500,000
17,500,000
15,500,000
13,500,000
11,500,000
9,500,000
7,500,000
5,500,000
3,500,000
950,000
850,000
750,000
650,000
550,000
450,000
350,000
250,000
150,000
50,000
(50,000)
1/30/2015
2/28/2015
3/31/2015
4/30/2015
5/31/2015
6/30/2015
7/31/2015
8/31/2015
9/30/2015
10/31/2015
11/30/2015
12/31/2015
1/31/2016
2/29/2016
3/31/2016
4/30/2016
5/31/2016
6/30/2016
7/31/2016
8/31/2016
9/30/2016
10/31/2016
11/30/2016
12/31/2016
1/31/2017
2/28/2017
3/31/2017
4/30/2017
5/31/2017
6/30/2017
7/31/2017
8/31/2017
9/30/2017
10/31/2017
11/30/2017
12/31/2017
Total Day
Max Hour on Day

Example of customer class-based rates: Customer's burden on system is low compared w/other classes

Customer Class	Extra Capacity Ratios Max Day	Max Hour
Residential	2.50	5.45
Multifamily	2.25	5.00
Commercial	1.75	4.00
Industrial	1.15	2.50
Public Authority	1.75	4.00
Ace Ethanol, LLC	0.425	0.791

Plus Volume Charges:

Residential Customers

All water used per quarter -$6.69 per 1,000 gallons

Multifamily Customers

All water used per quarter -$7.08 per 1,000 gallons

Commercial Customers:

All water used per quarter -$6.01 per 1,000 gallons

Industrial Customers:

All water used per quarter -$5.16 per 1,000 gallons

Public Authority Customers:

All water used per quarter -$6.74 per 1,000 gallons

Ace Ethanol, LLC:

All water used per quarter -$4.87 per 1,000 gallons

Example of customer class-based rates: Customer's burden on system is high compared w/other classes

Quarterly Service Charges (All Customer Classes):

⅝ -inch meter - $	21.75	3 -inch meter - $	123.00
¾ -inch meter - $	21.75	4 -inch meter - $	180.00
1 -inch meter - $	36.75	6 -inch meter - $	276.00
1¼ -inch meter - $	48.00	8 -inch meter - $	393.00
1½ -inch meter - $	60.00	10 -inch meter - $	672.00
2 -inch meter - $	90.00	12 -inch meter - $	1,140.00

Plus Volume Charges:

All Customer Classes Excluding Irrigation Class:

First	30,000	gallons used quarterly - $2.44 per 1,000 gallons
Next	70,000	gallons used quarterly - $2.22 per 1,000 gallons
Over	100,000	gallons used quarterly - $1.35 per 1,000 gallons

Irrigation Class Customers:

All water used per quarter - $2.90 per 1,000 gallons

“Provide information annually about the utility’s financial condition and the revenues necessary to provide service and maintain utility assets on a sustained basis.” - AWWA

CLASS A, B and C WASTEWATER COMPANY
PUC ANNUAL REPORT
OF

Utility Code
230077

Company:

VEOLIA WASTEWATER PENNSYLVANIA, INC

Address:

6310 Allentown Blvd., Suite 104, Harrisburg, PA 17112
Address City State Zip

TO THE
PENNSYLVANIA
PUBLIC UTILITY COMMISSION

DATE OF DEPOSIT
APR 25 2023
PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

For the Year Ended December 31, 2022

Telephone Number 717-901-6333

Fax Number N/A

E-Mail michael.watkin@veolia.com

Officer to whom correspondence concerning this report should be addressed:

Larry Finnicum
First Name Last Name

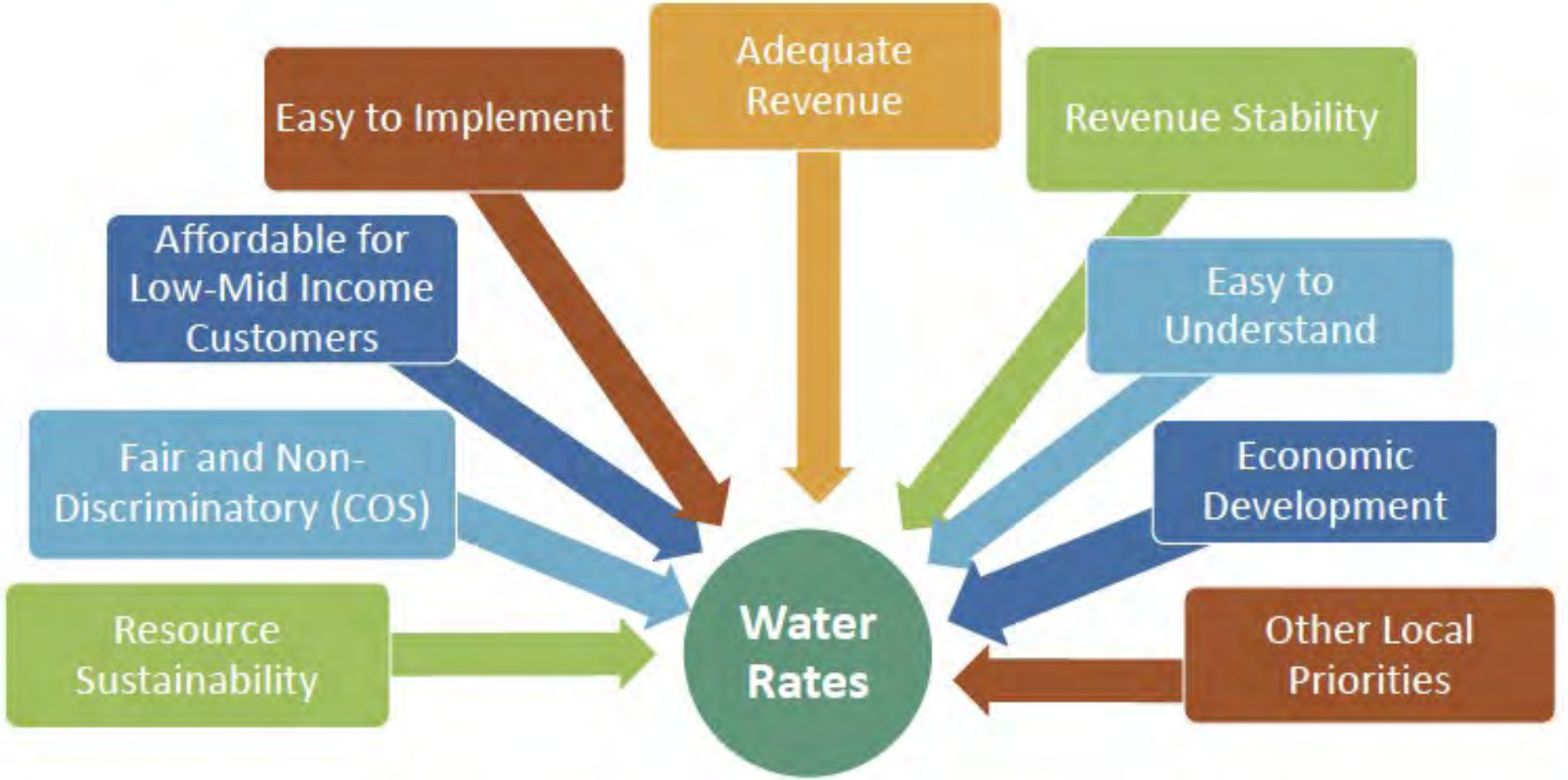
VP & General Manager
Title

6310 Allentown Blvd., Suite 104, Harrisburg, PA 17112
Address City State Zip

“Do not divert revenues for unrelated purposes.” - AWWA

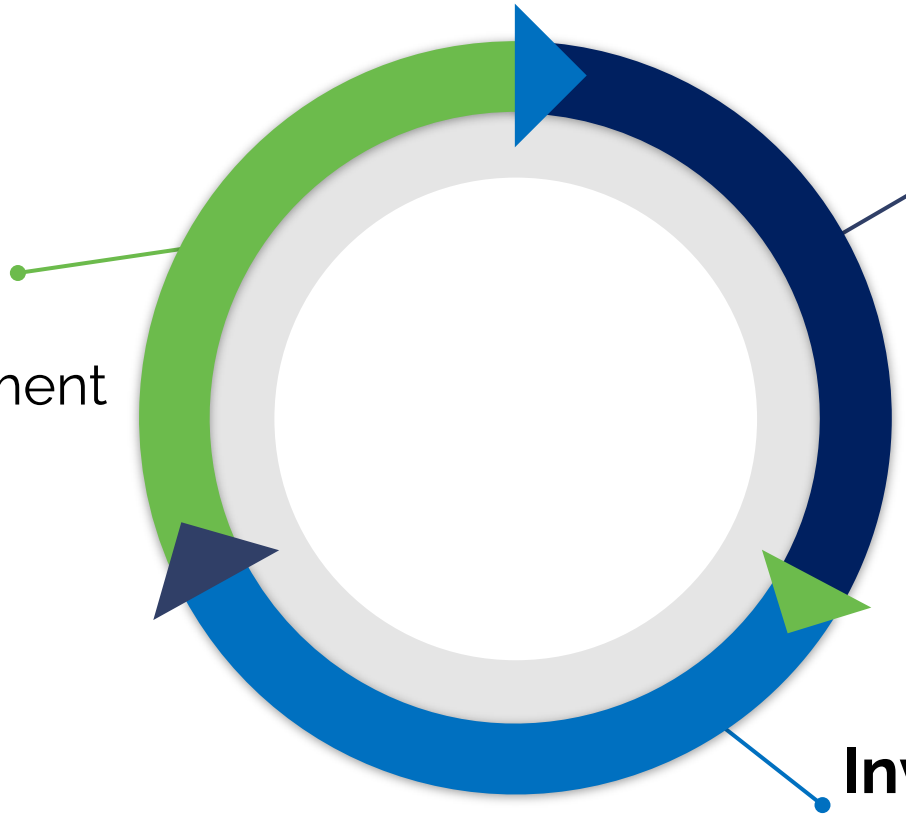
8 states move to ban utilities from using customer money for lobbying

Water rate policy considerations



Addressing challenges in the water sector

Decision makers are talking about:



Rate-setting

- Revenue requirement
- Cost allocation
- Rate design

Performance

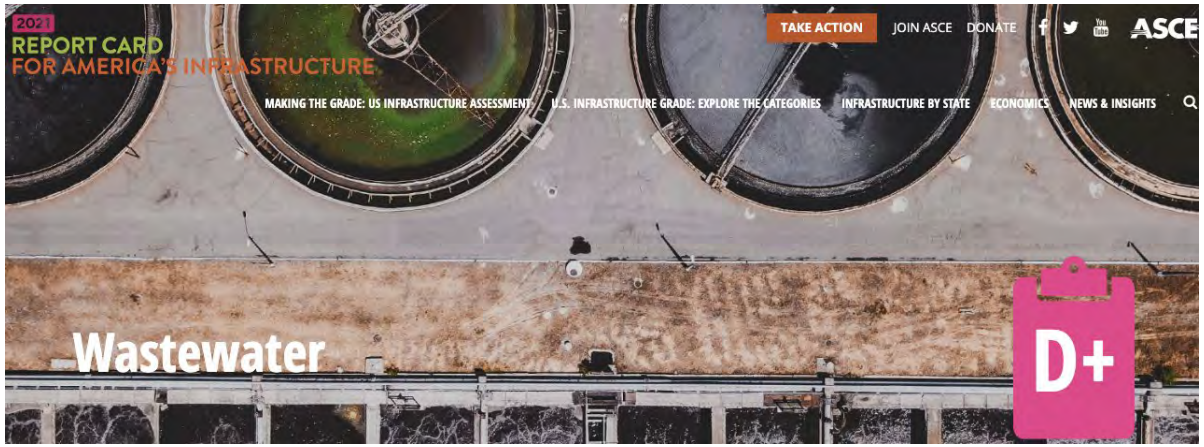
- Regulatory compliance
- Emerging issues
- Consumer protections
- Level of service
- Financial stability
- Risks and opportunities

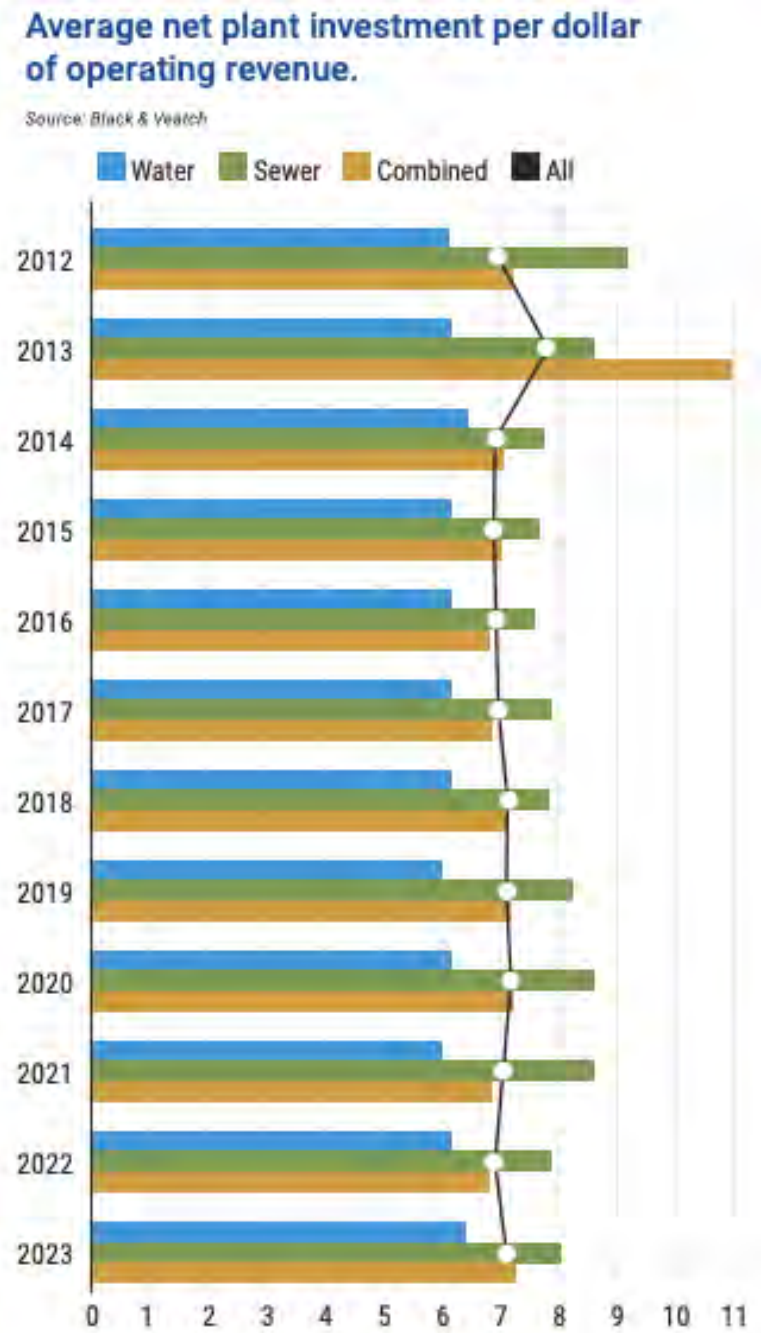
Investments & Operations

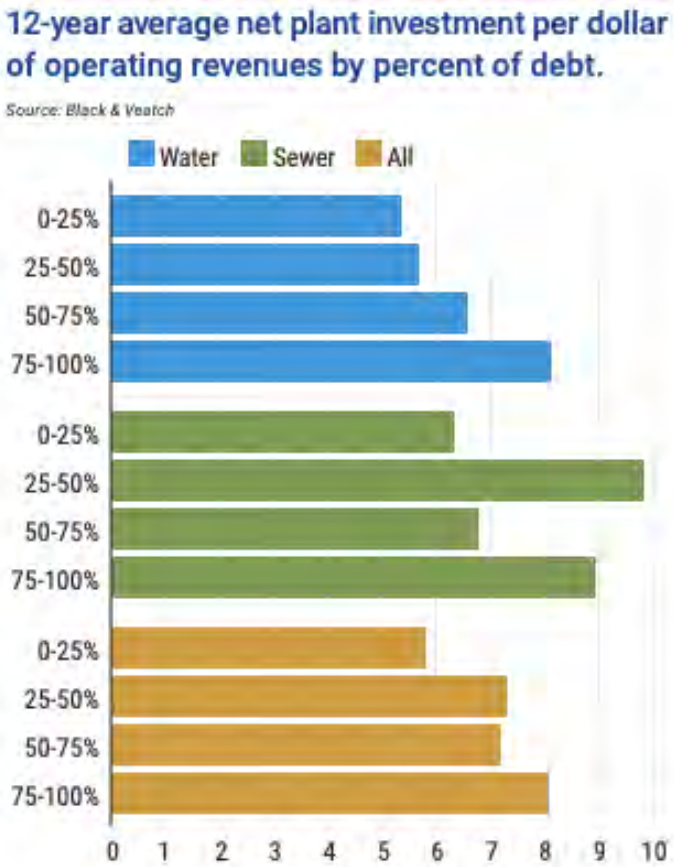
- Construction projects and associated funding/finance
- Operational changes
- Organizational changes
- New programs

Infrastructure replacement

- By 2019,utilities were **replacing between 1% and 4.8% of their pipelines per year**
- **Nearly half of water utilities report declining or flat total water sales** in the past 10 years. Water use dropped 3% from 2010 to 2015, despite a 4% increase in the nation's total population.
- The federal government's share of capital spending in the water sector fell from 63% in 1977 to 9% of total capital spending in 2017.
    - The American Rescue Plan Act (ARPA) and the Bipartisan Infrastructure Law (BIL) have infused **new federal water investment dollars.**







Source: https://www.bv.com/resources/black-and-veatch-2024-50-largest-cities-water-and-wastewater-survey-report/?utm_source=email&utm_medium=eloqua&utm_campaign=24-wastewater-rate-report&utm_content=24-wastewater-report-launch-em-download

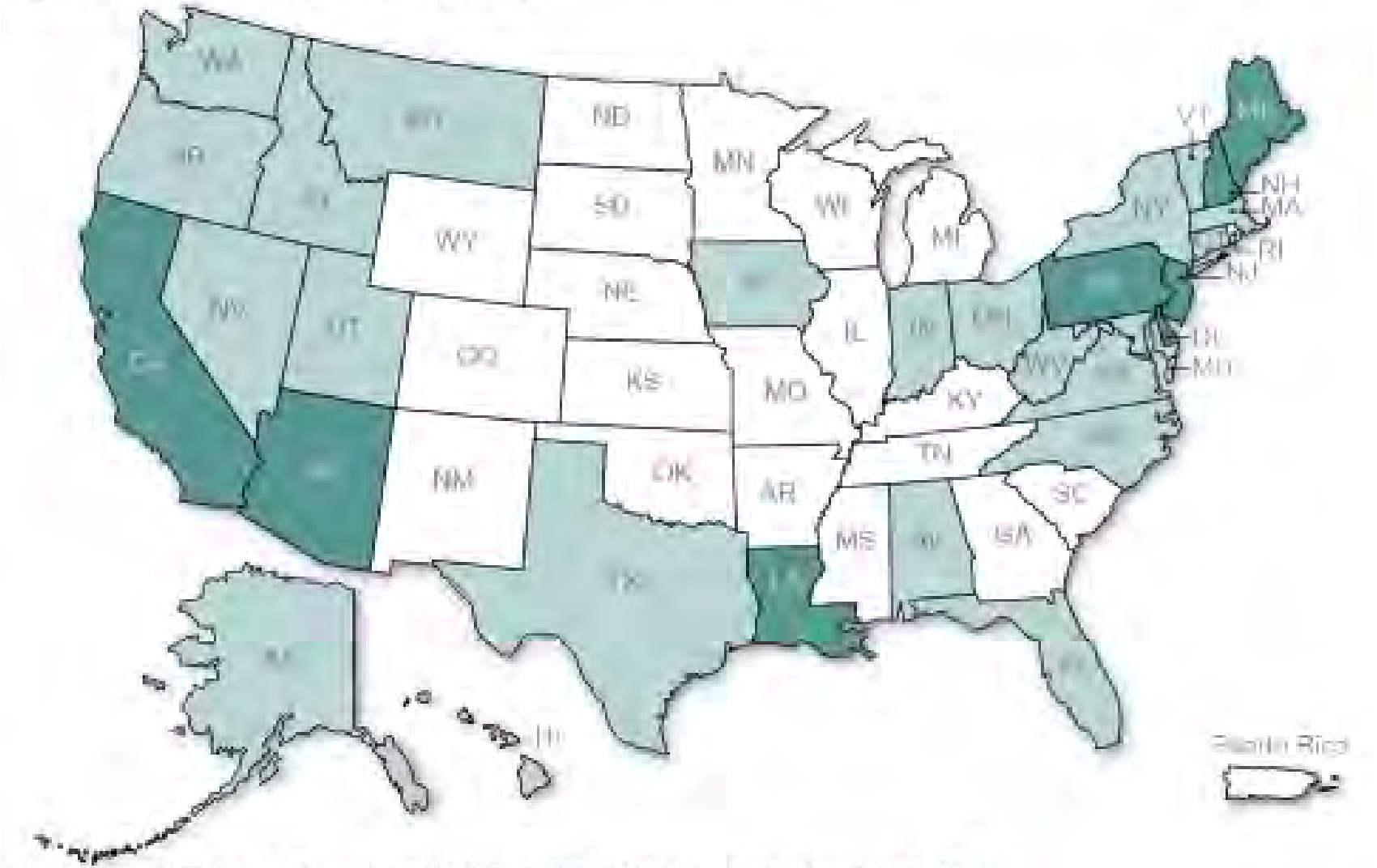
The opportunity

- There's a lot of money ($$$) on the table! - $43 billion through the Bipartisan Infrastructure Law (BIL).
- Opportunity to direct more funding towards low-income and other dis- and under-invested communities.
- Funds flow through state SRF programs
  - Loans at below-market or zero-interest rates
  - Additional subsidies in the form of grants and principal forgiveness
  - Refinancing existing debt obligations
  - Guarantee or purchase insurance for local debt obligations

Biden-Harris Administration Announces $25 Million to Help Provide Small, Underserved, and Disadvantaged Communities with Clean and Safe Drinking Water

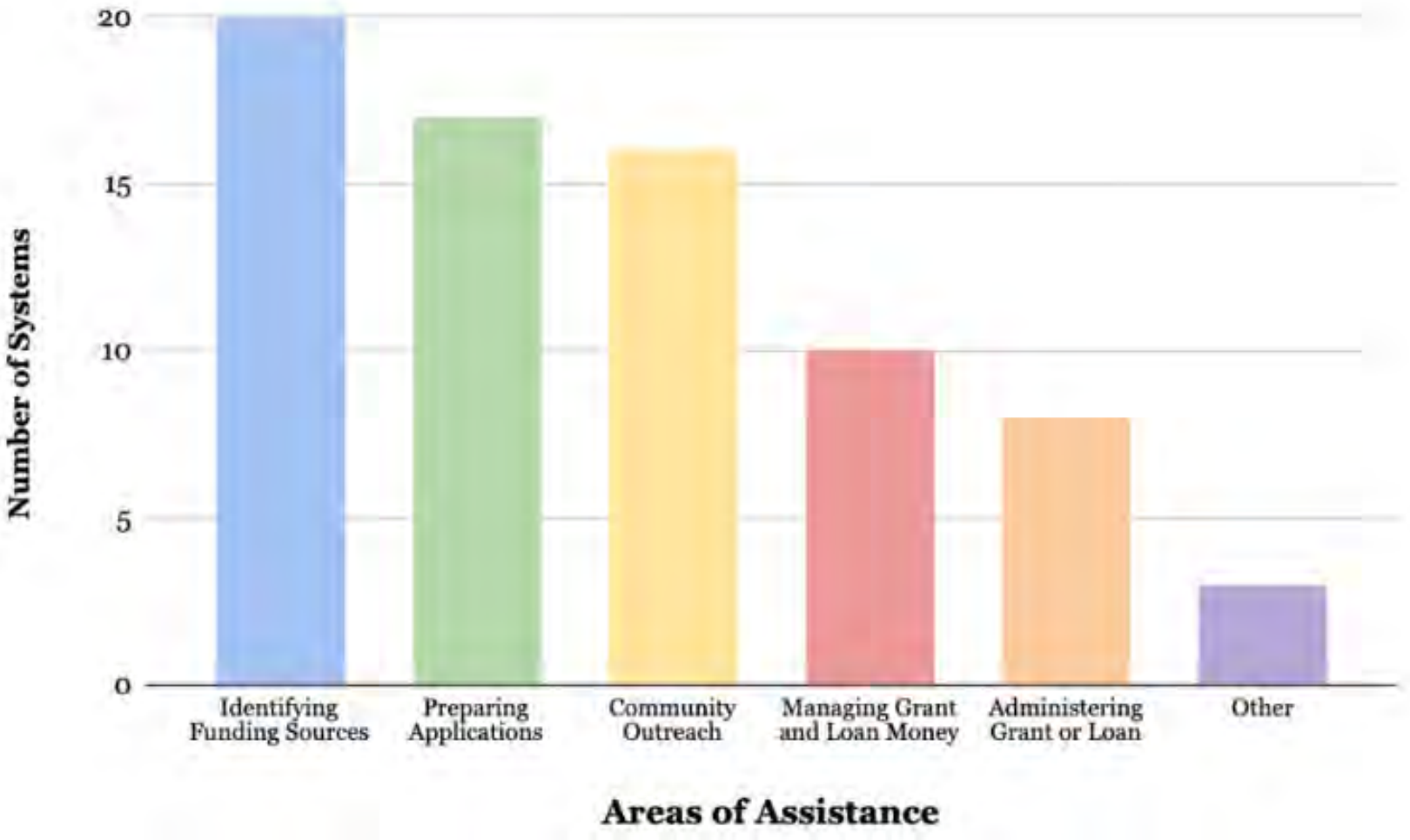
May 21, 2024

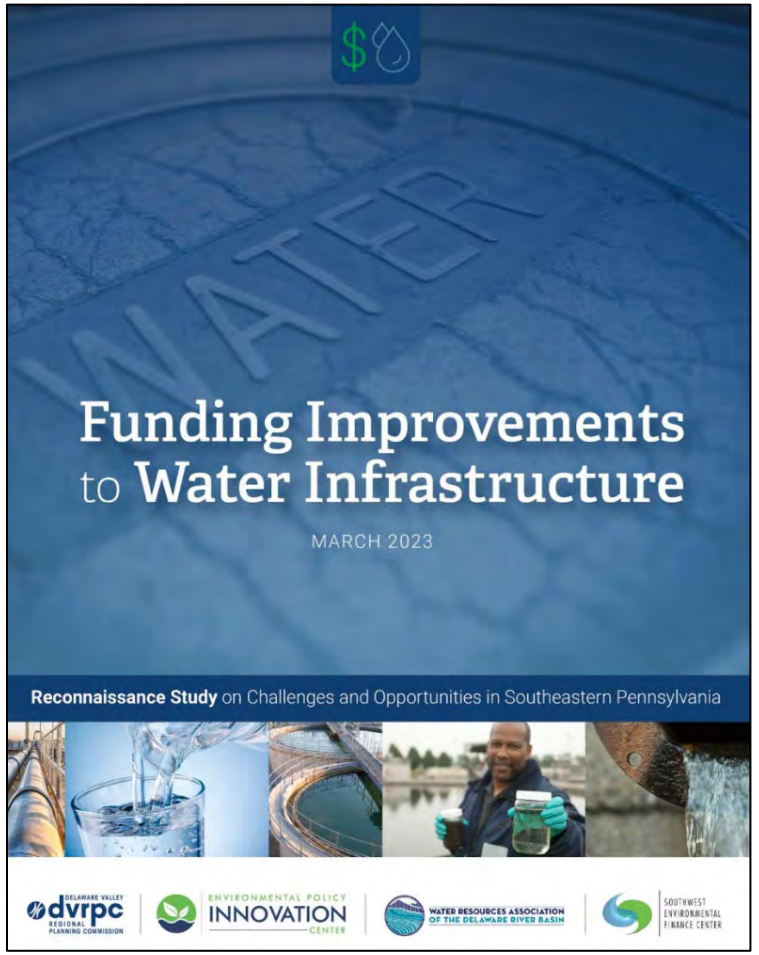
States That Provided Private For-Profit Utilities with Assistance from the Drinking Water State Revolving Fund, since January 2010



Source: https://www.gao.gov/products/gao-21-291

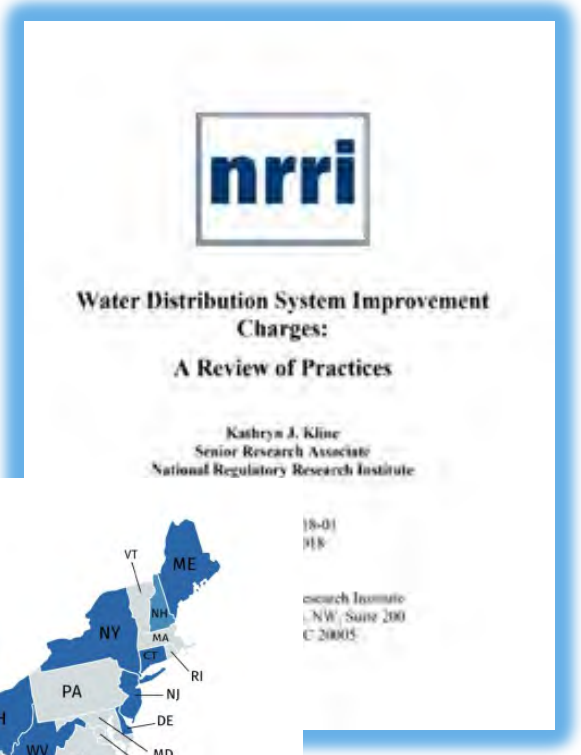
Many water systems need assistance accessing public funds for water infrastructure





Alternative infrastructure replacement financing mechanisms

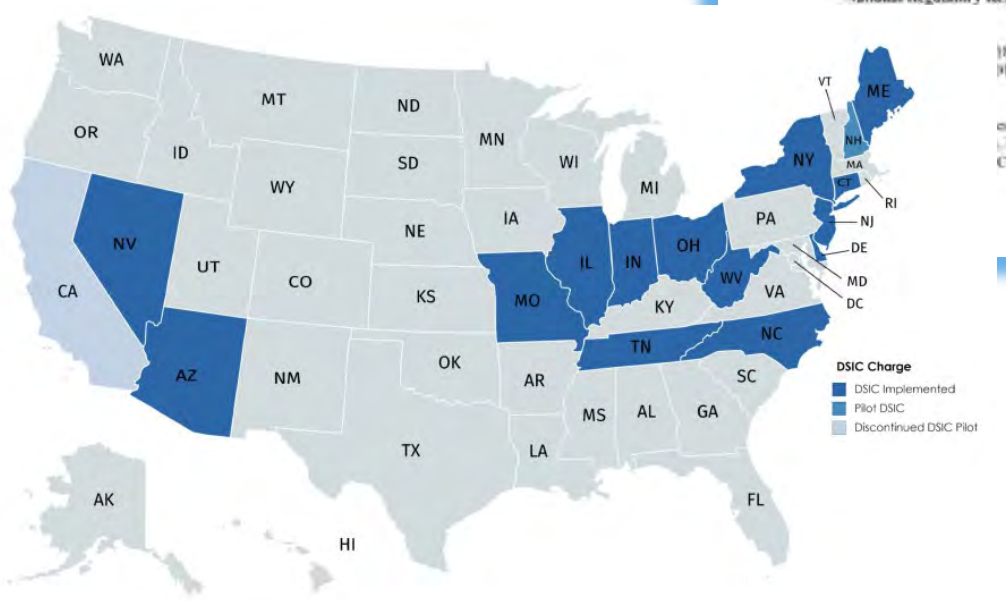
- Allow for rate increases outside a general rate proceeding for non-revenue producing investments
- May include limits on the amount of incremental revenues that can be collected and true-up mechanisms
- Other alternatives:
  - Other riders and trackers
  - Future test years
  - Multi-year rates
  - Construction Work in Progress
  - Decoupling/revenue stabilization
  - Formula Rates
  - Earnings sharing
  - Performance-based ratemaking


nrri

Water Distribution System Improvement Charges:

A Review of Practices

Kathryn J. Kline
Senior Research Associate
National Regulatory Research Institute



See: https://pubs.naruc.org/pub/FA86A4CE-0F06-7899-27F8-D923A23EEAE4

Ensuring public health

- Public water supply is vitally important yet largely goes unnoticed by the general public.

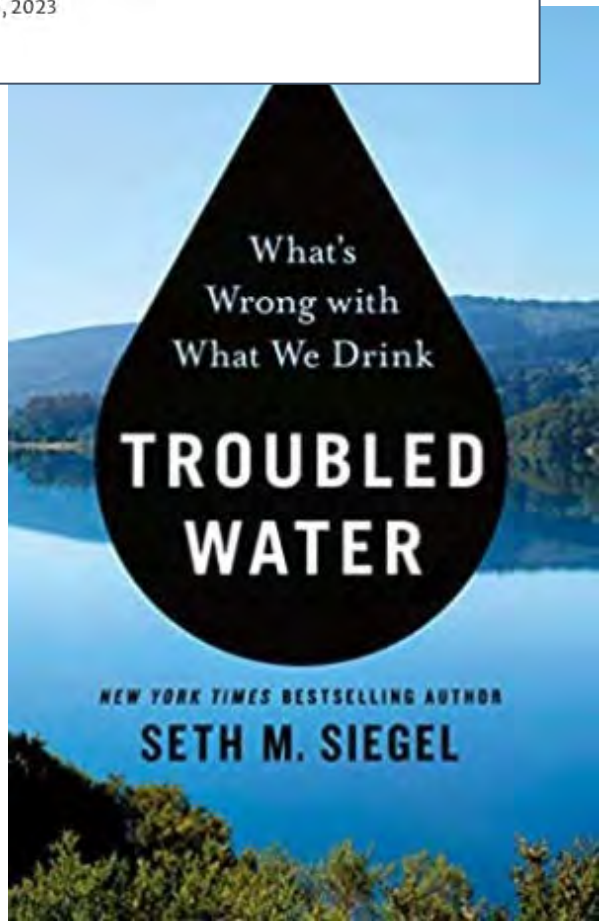
- Water suppliers are the only public utilities that provide a service their customers ingest.

- Customer expectations:
  - Water should be cheap, if not free
  - Drinking water must be safe and available 24/7
  - Expectations regarding “safe” can vary from customer to customer

Jackson leaders insist city water is safe to drink. Some mothers struggle to trust them.

As officials continue to insist water flowing from the troubled Jackson system is safe to drink, distrust among many capital city residents — particularly mothers and caregivers of small children — runs deep.

by Adria R. Walker July 6, 2023



Ensuring public health: Lead service line replacement

Solutions

1. Federal policies & funding
2. State policies & funding
3. Local policies
4. Community engagement
5. Focus on equity
6. Innovation
7. Technical assistance


Indiana bill aims to replace lead service lines more quickly, efficiently

By Jayden Kennett - February 12, 2024

The Indiana State House in Indianapolis, Indiana.

A bill to replace lead service lines more quickly is advancing through the Indiana Statehouse with bipartisan support.

Senate Bill 5 aims to replace lead service lines more quickly, more efficiently and at a lower cost.

In 1991, the Environmental Protection Agency established the Lead and Copper Rule which aims

Frustration in Troy over unused funds for lead pipes, officials cite state restrictions

Legislation Health Infrastructure

DECEMBER 20, 2023 | Albany, NY

Governor Hochul Signs the Lead Pipe Right to Know Act

Ensuring public health: A dynamic regulatory environment

- **Changes to existing regulations** (Ex: revisions to Federal Lead and Copper Rule, PFAS).
- **Health advisories** on contaminants that are not currently regulated under the Safe Drinking Water Act.
- **Investment decisions** driven by regulatory limits and customer expectations.

Contaminant Candidate List 6

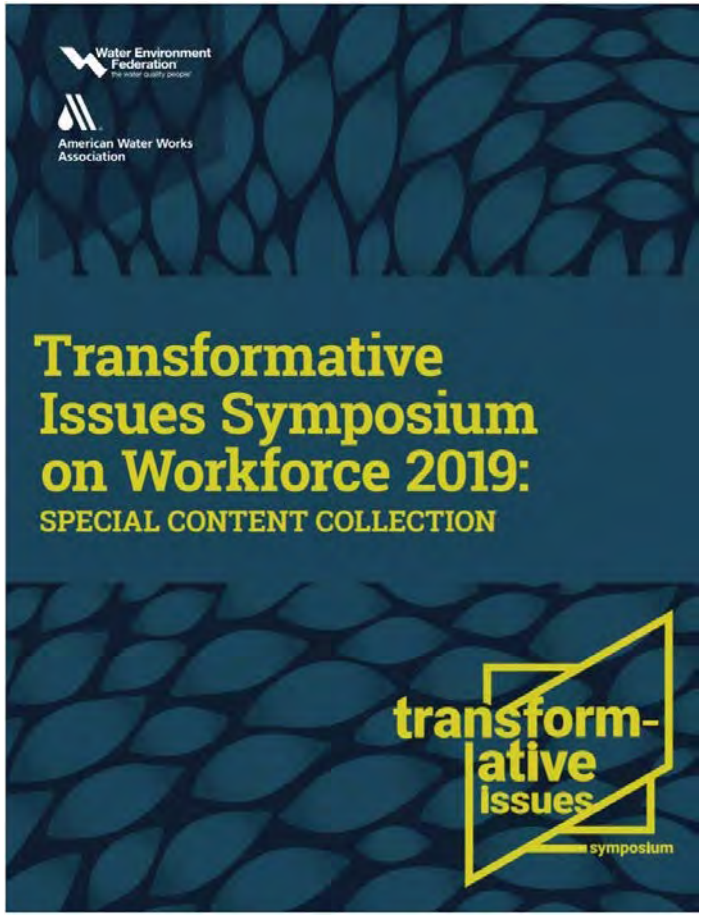
April 19, 2023 - The 60-day submission window has officially closed for public nominations of chemicals, microbes, or other substances that are not currently regulated in drinking water for possible inclusion on the Sixth Contaminant Candidate List (CCL 6). Read More.

POLICY BRIEFING

US EPA proposes 10-year deadline to remove lead service lines

1/16/2024 0 9 MIN READ

Water workforce issues



- Between 2016 and 2026, an estimated 10.6% of water sector workers will retire or transfer each year.
- Some utilities are expecting as much as half of their staff to retire in the next five to 10 years.
- Some utilities have recently seen operators and distribution system staff leave to take jobs with construction and other contractors.

Innovative Water Infrastructure Workforce Development Program

Grant Program Overview

Invest in Recruitment to Support the Water Workforce

By Tonya Bronleewe, Director, WSU Environmental Finance Center

hthttps://www.awwa.org/Portals/0/AWWA/ETS/Resources/EmployerToolkit080119.pdf?ver=2019-08-01-143735-380

High School Apprenticeships

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Occupational Licenses: Water System Operators

Information about registration required for water operation companies and licensing for water operators.

Workforce and supplier diversity

SWL&P
AN ALLETE COMPANY

Superior Water Light & Power (SWLP)
2023 Wisconsin PSC Annual Report
Supplier Diversity

Supplier Diversity Filing Requirements:

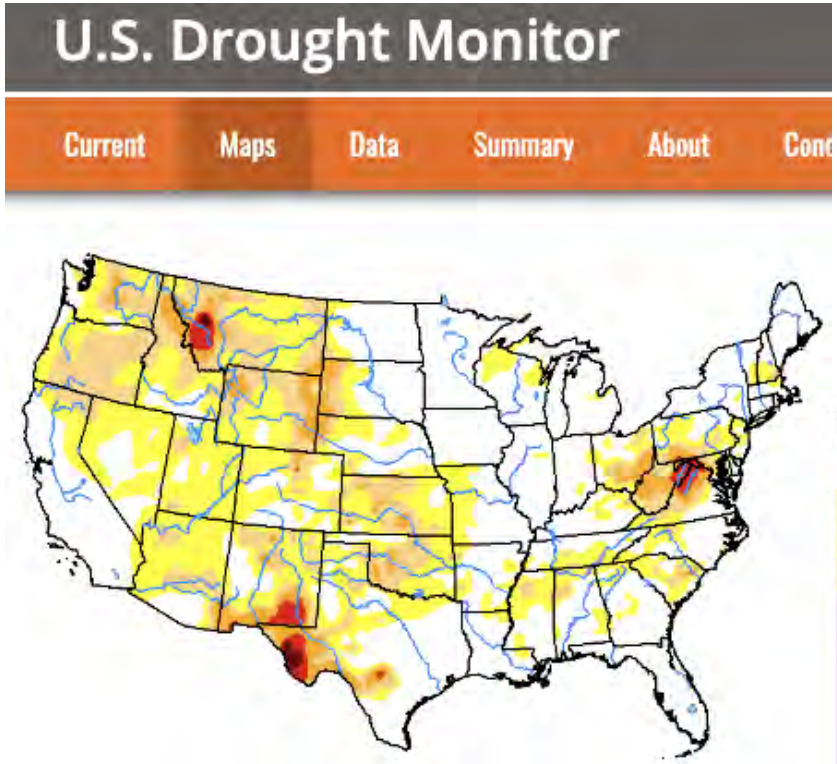
For Supplier Diversity, utilities will file all procurement goals and actual spending for women-owned, minority-owned, veteran-owned, disability-owned, and LGBT businesses in the previous calendar year, and the utilities' plan for implementing and realizing their goals for the following year. For purposes of filing this report,

Ownership means a for-profit business at least 51% owned by the identified group, as defined below:

- **Women-Owned Businesses**: at least 51% owned and controlled by one or more women.
- **Minority-Owned Businesses**: at least 51% owned and controlled by a minority group member(s) of one of the following ethnicities: African American, Asian-Indian American, Asian- Pacific American, Hispanic American, Native American.
- **Veteran-Owned Businesses:** at least 51% owned and controlled by one or more veterans or service-disabled veterans.
- **Disability-Owned Enterprises**: at least 51% owned, managed, and controlled by a person with a disability.
- **LGBT-Owned Businesses**: at least 51% owned and controlled by one or more LGBT individuals.
- **Small Businesses**: a business that satisfies the U.S. Small Business Administrations size standard based on their number of employees or annual revenue. *See U.S. SBA for more details.*

Actual Spend - 2023	Certified	Self-Classified	Tier II *(Direct & Indirect)*	Credit Card	TOTAL
Women-Owned Businesses:	$3,393,260	$50,503	$17,823	$21,019	$3,482,605
Minority-Owned Businesses:	$56,248	-	$2,786	$317	$59,351
Veteran-Owned Businesses:	$33,549	$423	$1,459	$2,874	$38,305
Disability-Owned Enterprises:	-	-	$45	-	$45
LGBT-Owned Businesses:	-	-	-	-	-
Small Businesses:	*$3,490,913*	*$17,572*	$264,842	*$177,754*	$3,951,081
Total 2023 diverse supplier spend:	**$3,483,057**	**$50,926**	**$22,114**	**$24,210**	**$3,580,306**

Water supply challenges and the cumulative impact of extreme weather events

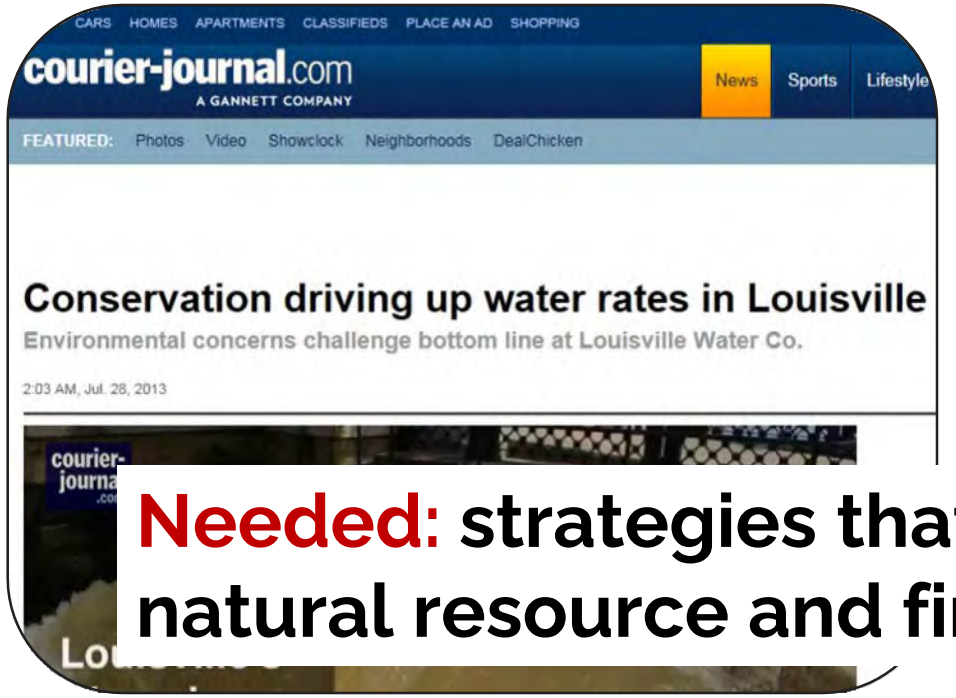


Springbrook

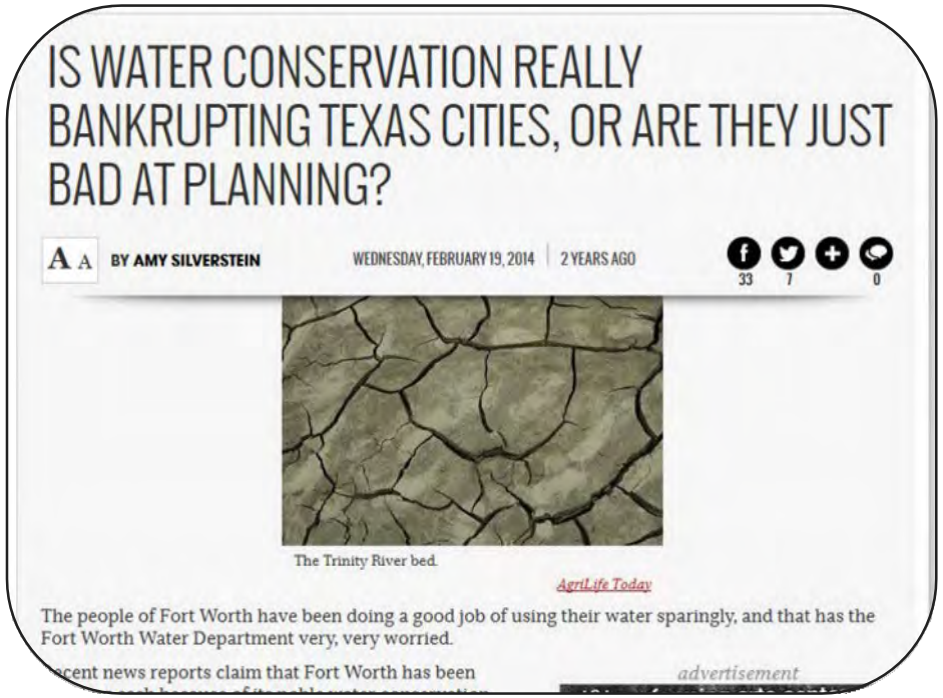
Water – at the center of the climate crisis

Request Climate Change Technical Assistance

Request no-cost climate change risk assessment technical assistance for drinking water, wastewater, and stormwater utilities. Requesting communities will receive one-on-one no-cost climate change risk assessment support using EPA's Resilient Strategies Guide, Climate Resilience Evaluation and Awareness Tool, and Climate and Weather Data Maps. To apply, email Aliza Furneaux (Furneaux.aliza@epa.gov) by August 15th, 2024.



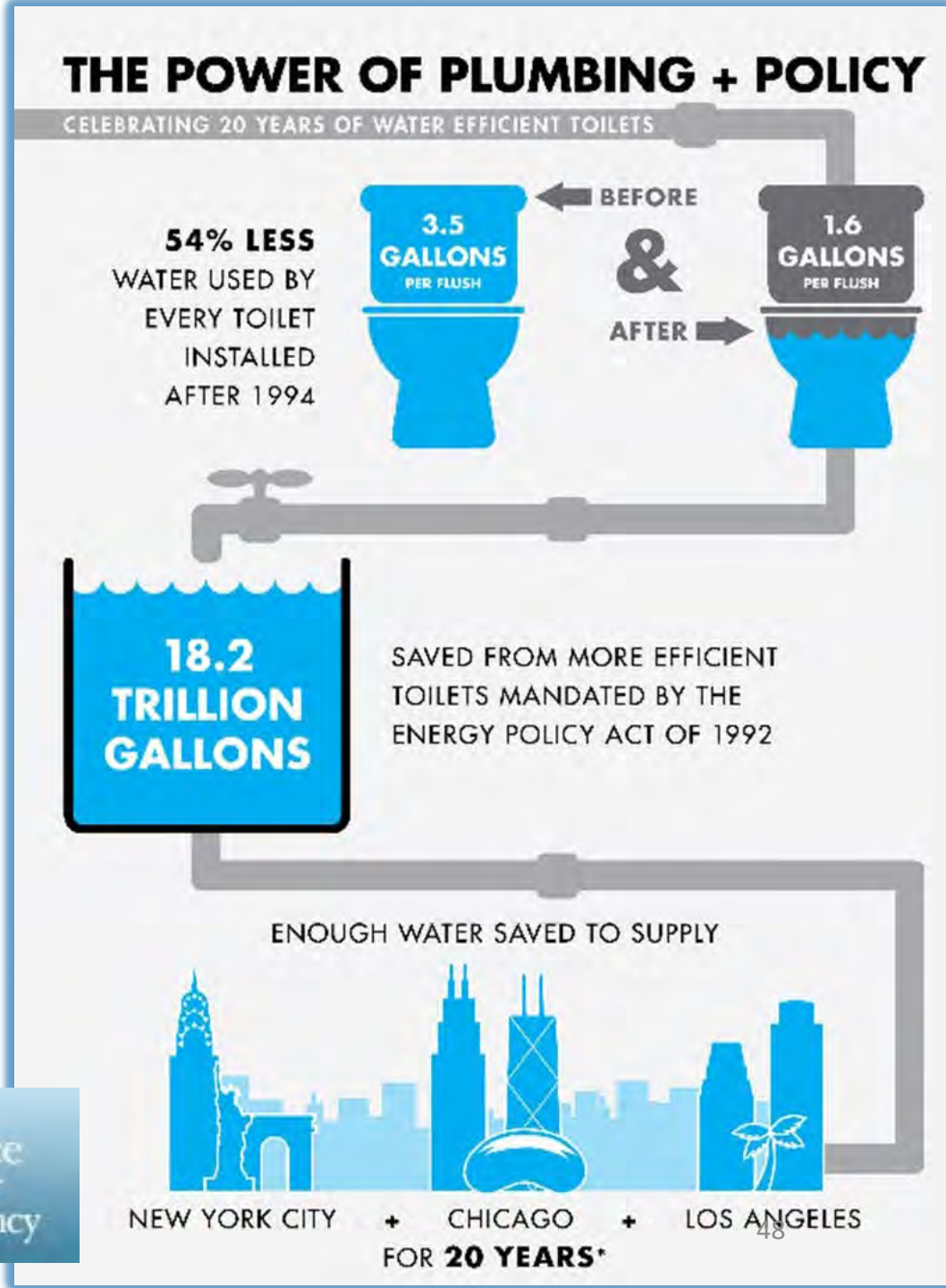
Needed: strategies that enhance both natural resource and financial sustainability



Where did the water demand go?

Residential

- Efficiency standards
- Codes and ordinances
- Lot sizes, growth policies
- Active conservation programs
- Price elasticity: outdoor use

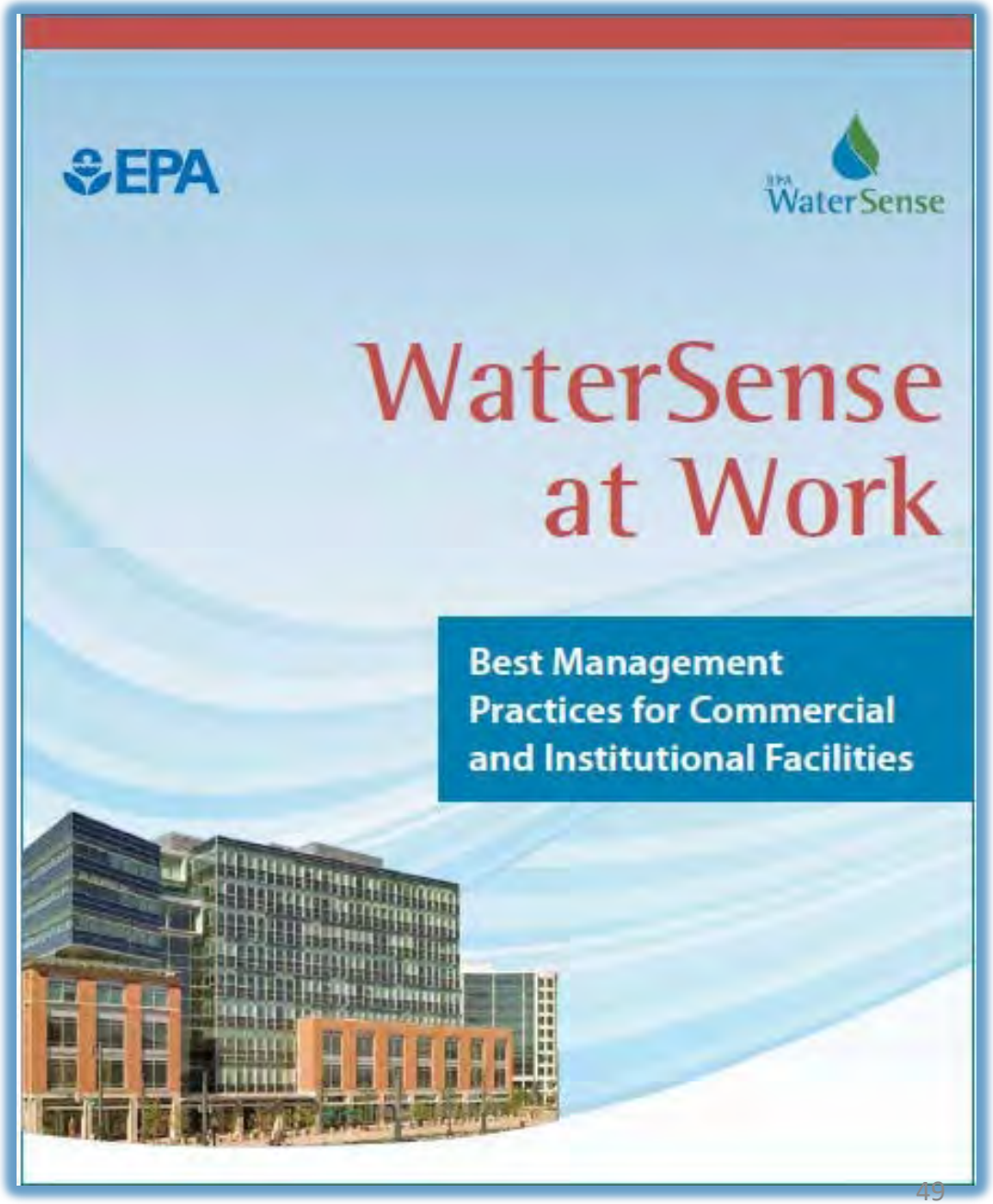


Alliance for Water Efficiency

Where did the water demand go?

<u>Commercial and Industrial</u>

- Changes in types of commercial and industrial activities
- Price elasticity
- Process improvements
- Sustainability ethic



Strategy: Adopt conservation measures that reduce peak demand

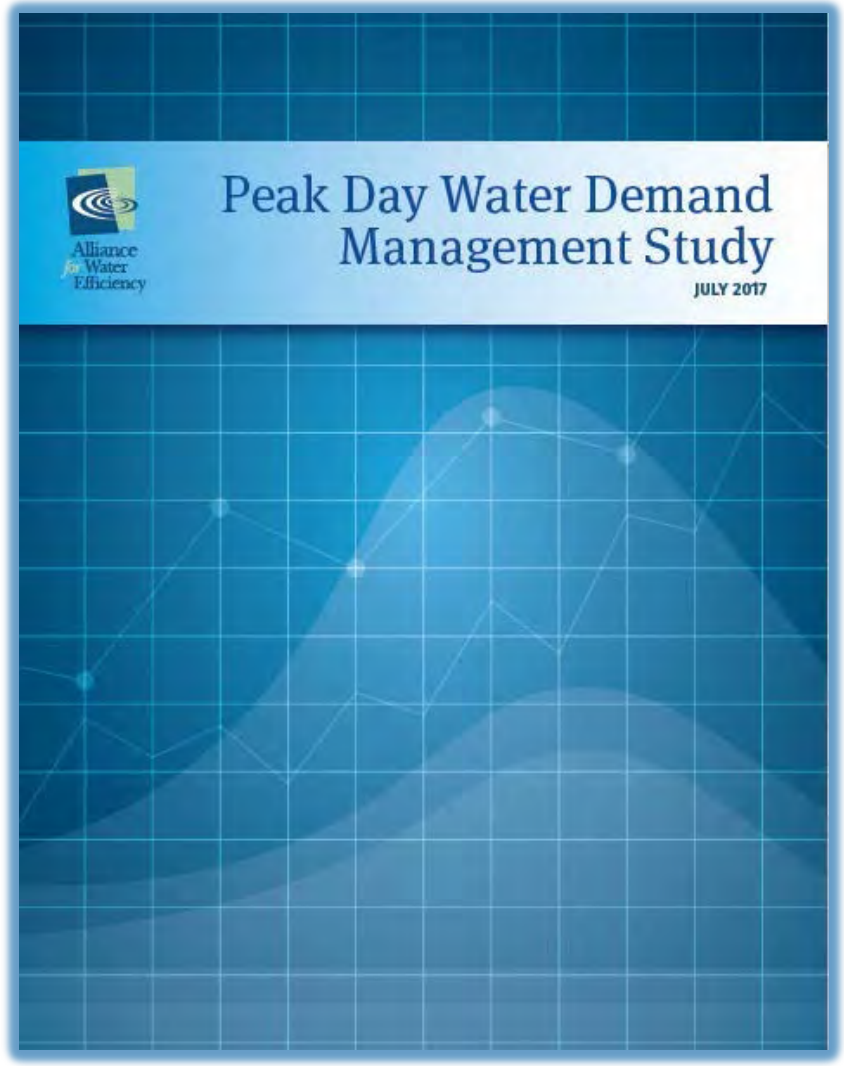
City of Waukesha's
Annual Sprinkling Ordinance
May 1st - October 1st

Addresses Ending With An	May Water On The Following Days	During These Hours
Odd Number	Tuesdays & Saturdays	Before 9 am or After 5 pm
Even Number	Thursdays & Sundays	Before 9 am or After 5 pm

Hand watering may be done any day at any time.

Enforcement: Warnings will be given for the first watering violation. Subsequent offenses will result in fines as per Ordinance. Violations may be reported anonymously at (262) 521-5272.

Save Money & Mow Less: Join "My Brown Lawn is GREEN" campaign. Since established lawns go dormant in the summer and turn green again with the autumn rain, watering the grass is unnecessary.

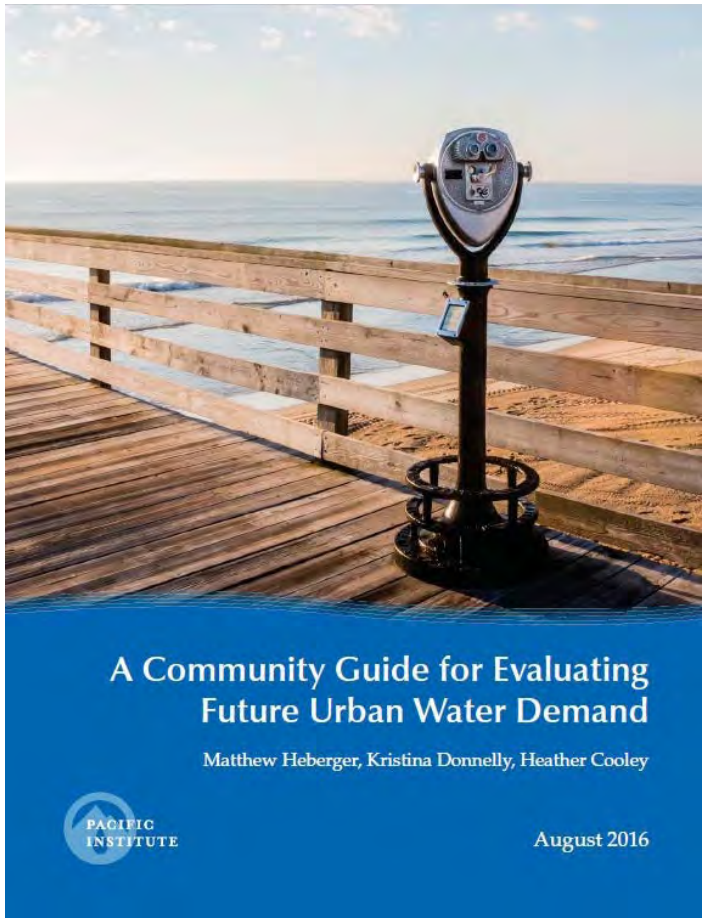


Avoided/downsized infrastructure reduces rates in the long term

- Utilities reduced costs by:
  - Avoiding purchase of additional water supply
  - Deferring large-scale infrastructure projects
  - Reducing size of new facilities

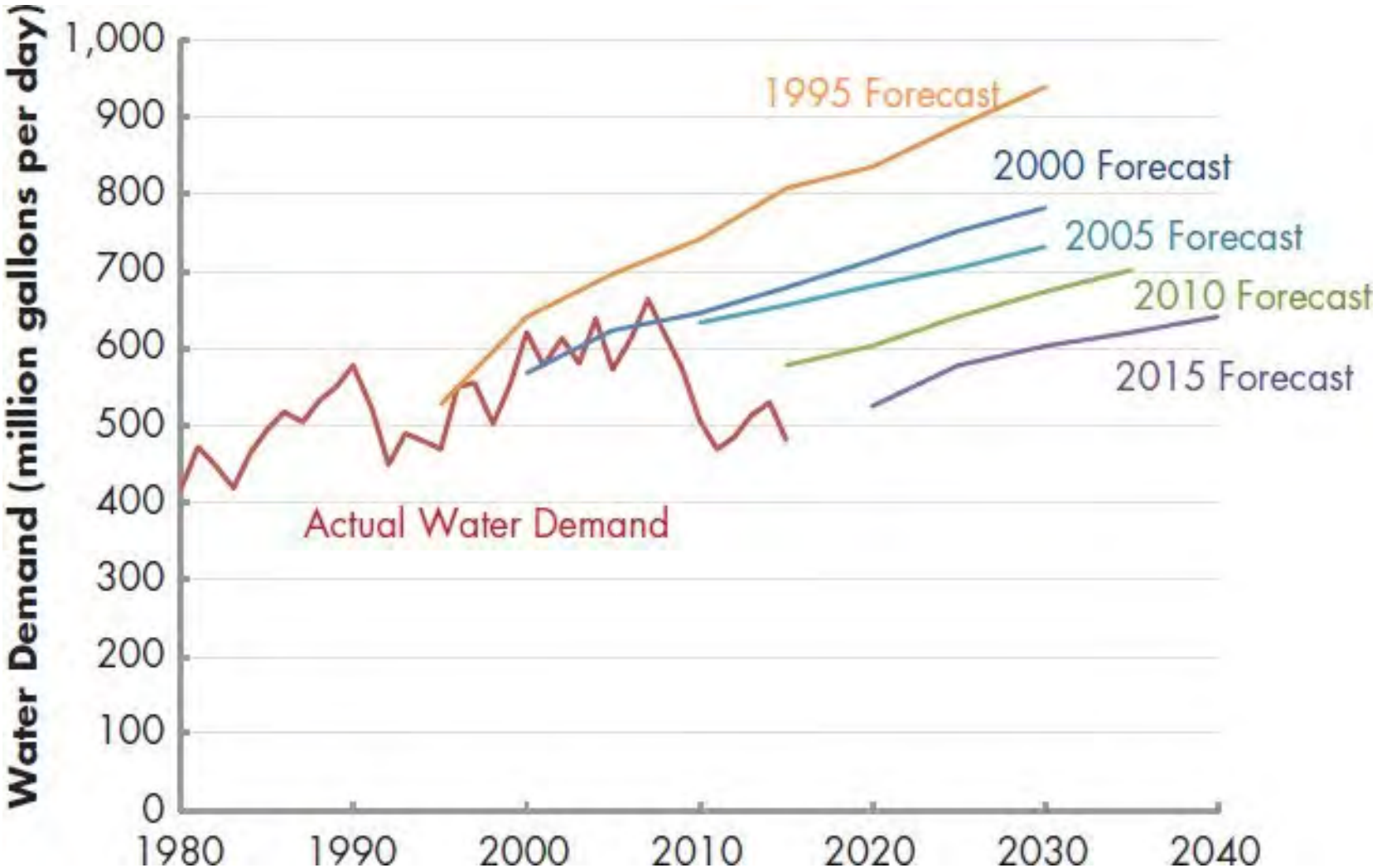
- Reports available at: www.financingsustainablewater.org

Strategy: Improve capital planning practices



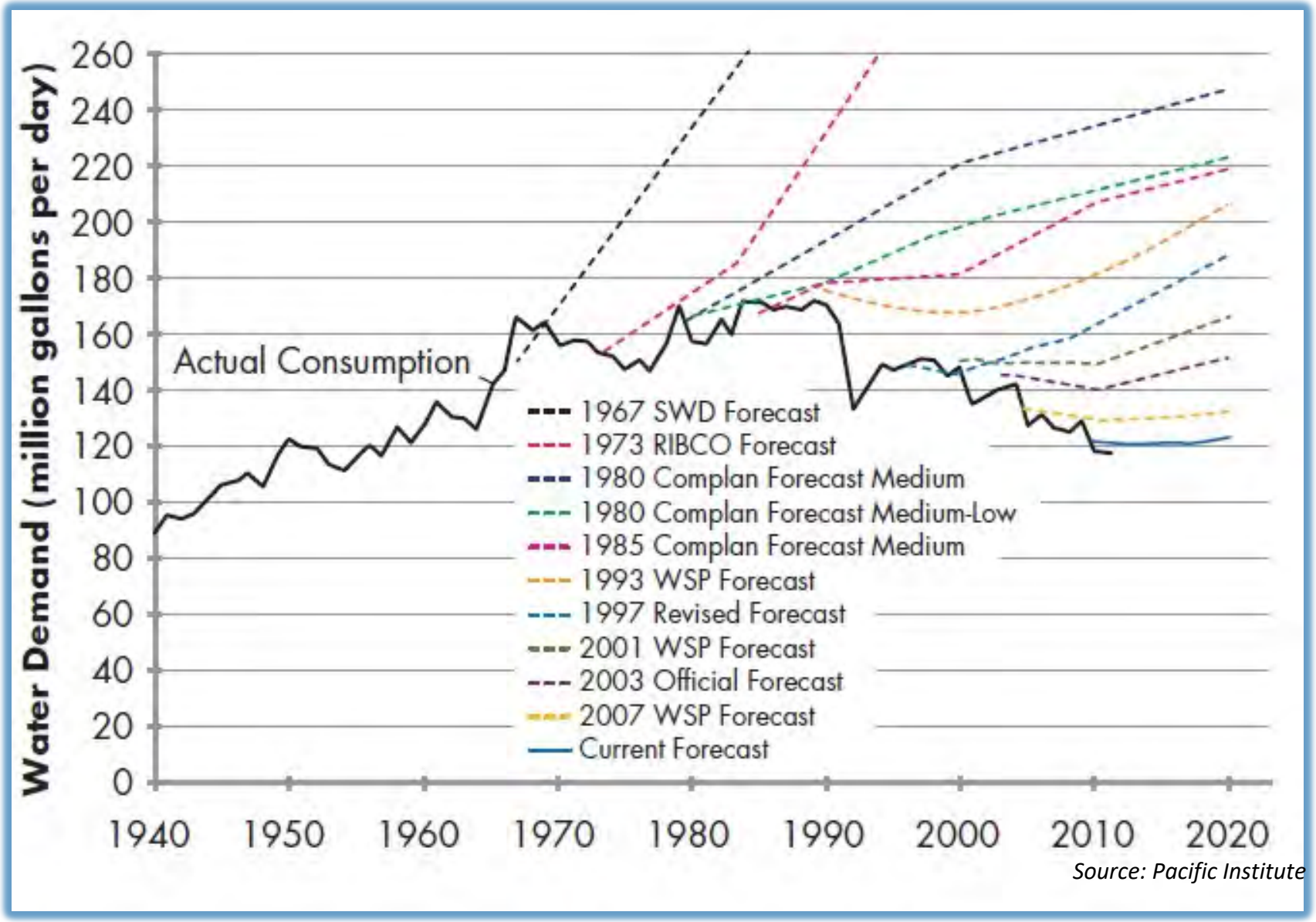
"The reality is that many water suppliers consistently overestimate actual water demand."

Example: San Diego County



Source: Pacific Institute

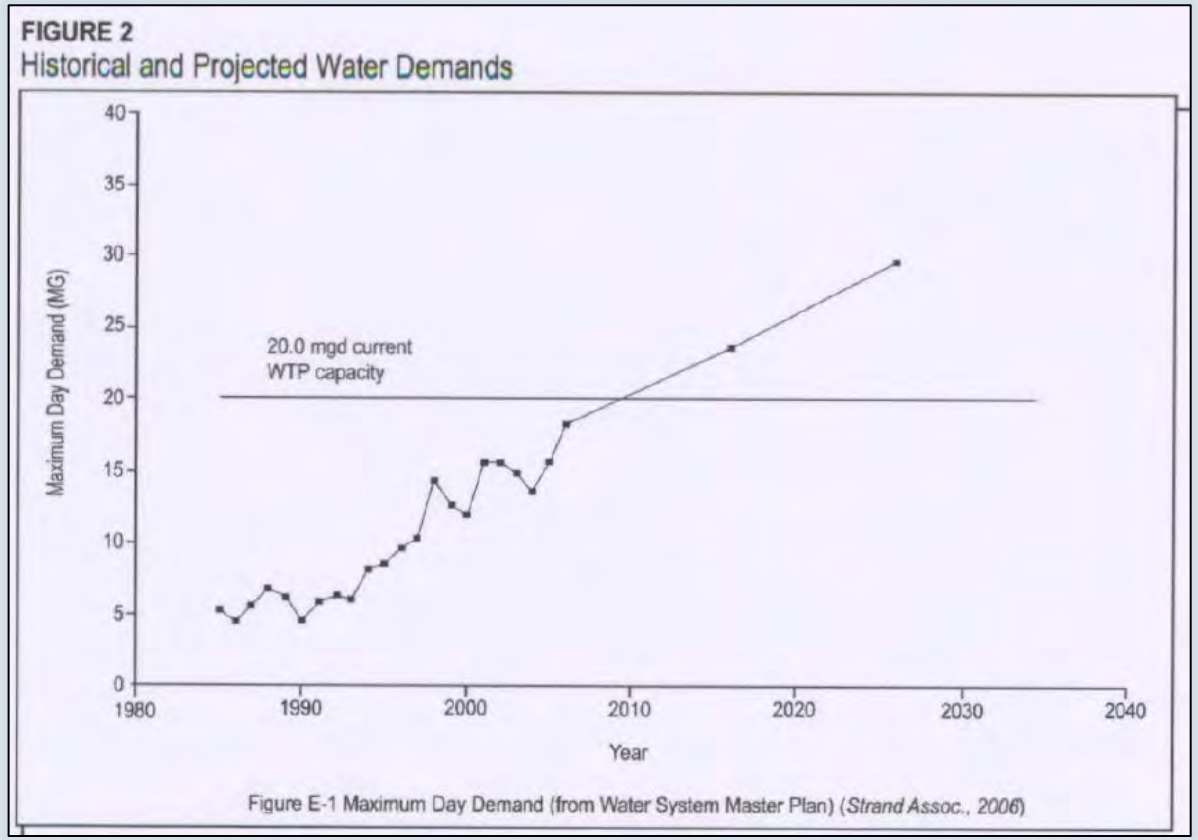
Example: Seattle, Washington



Source: Pacific Institute

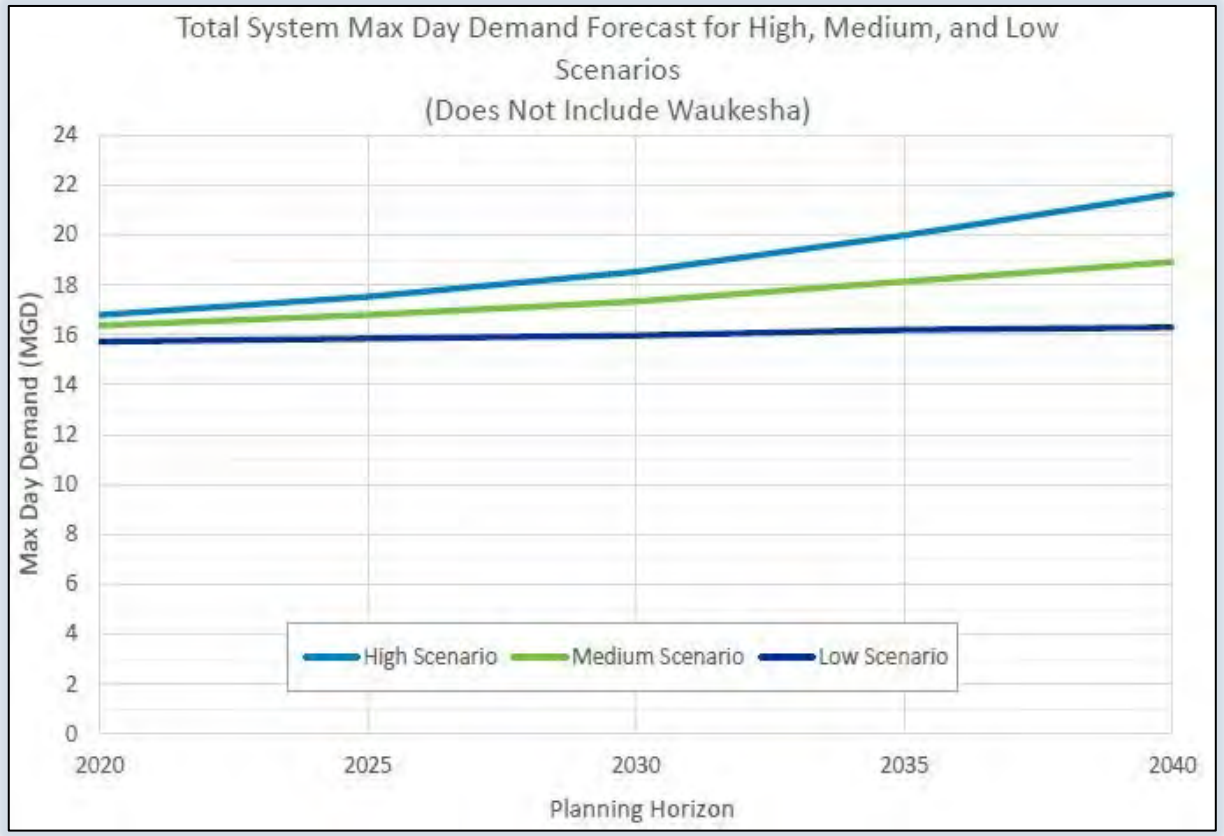
Example: Demand projections used to design water treatment projects

2006

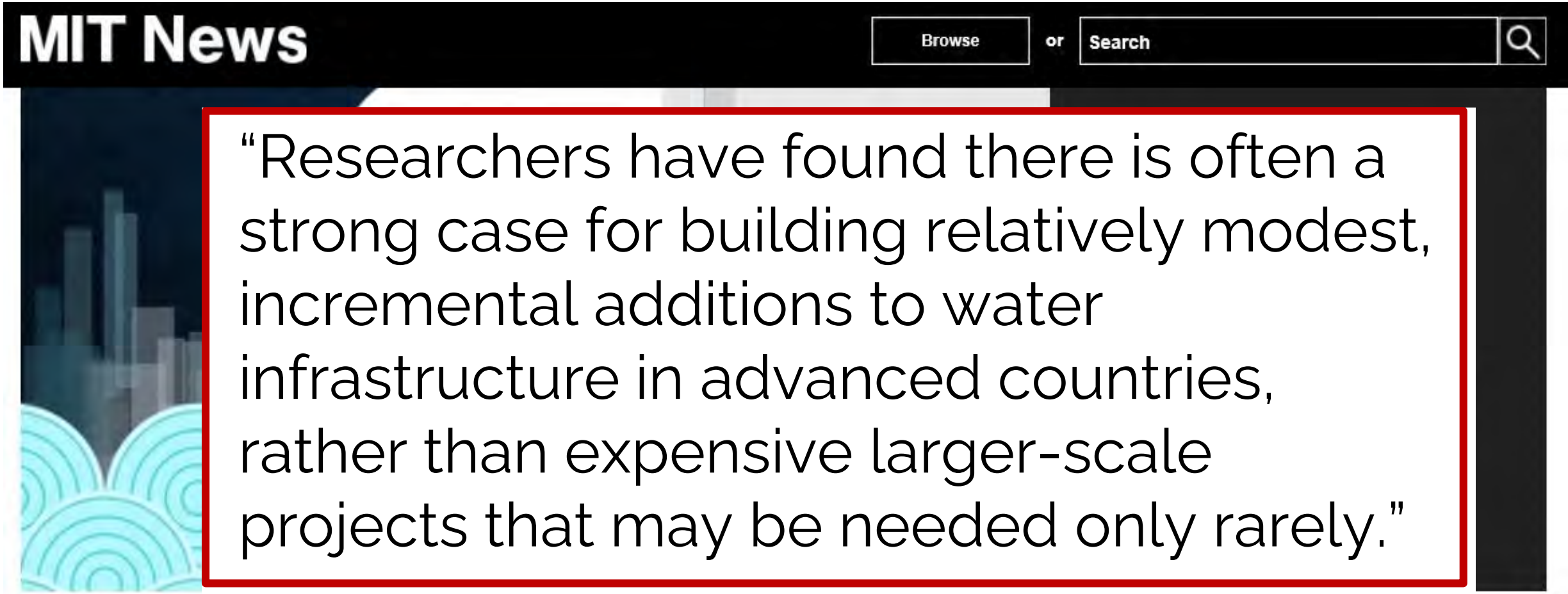


Docket 4310-CW-106

2016

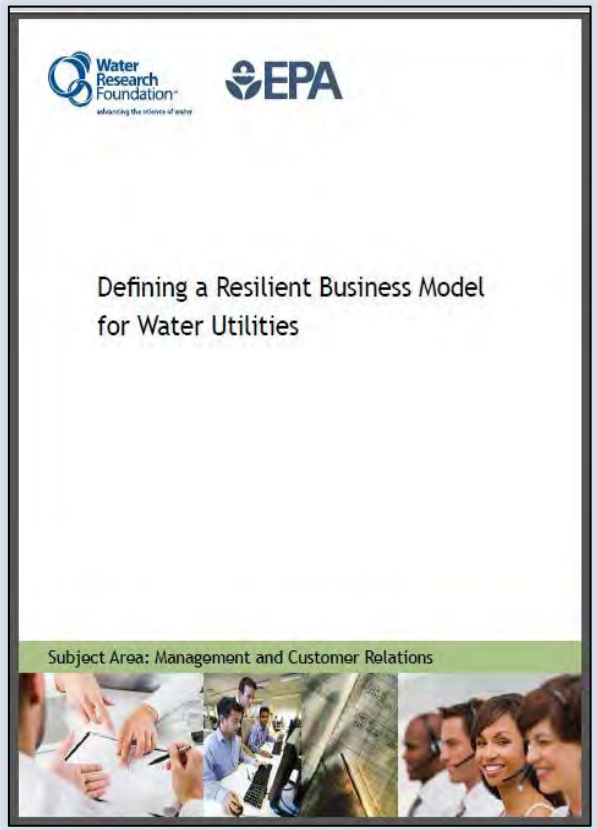


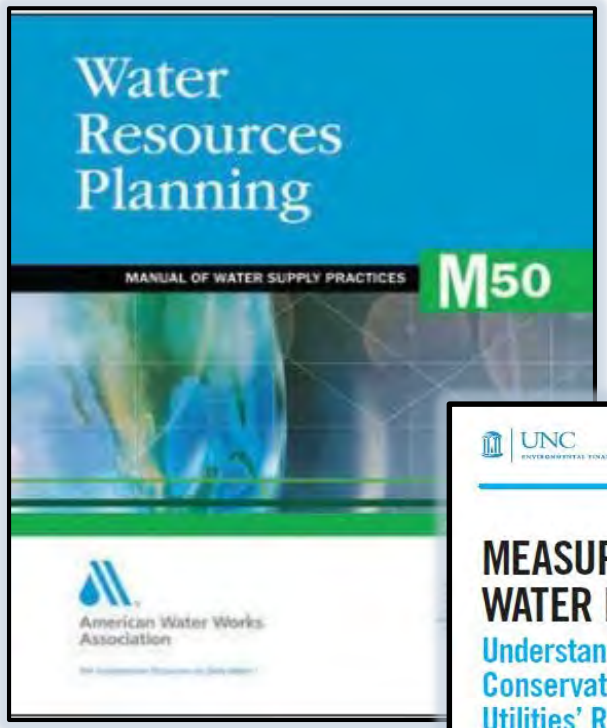
Docket 4310-CW-108

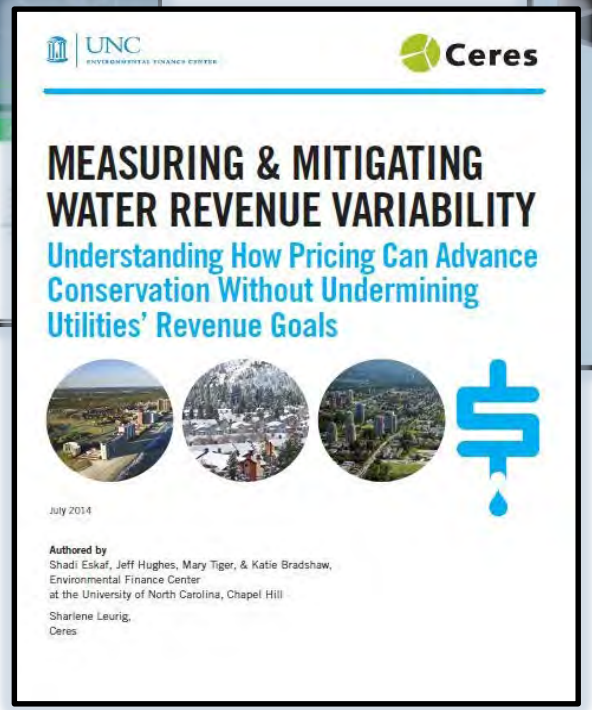


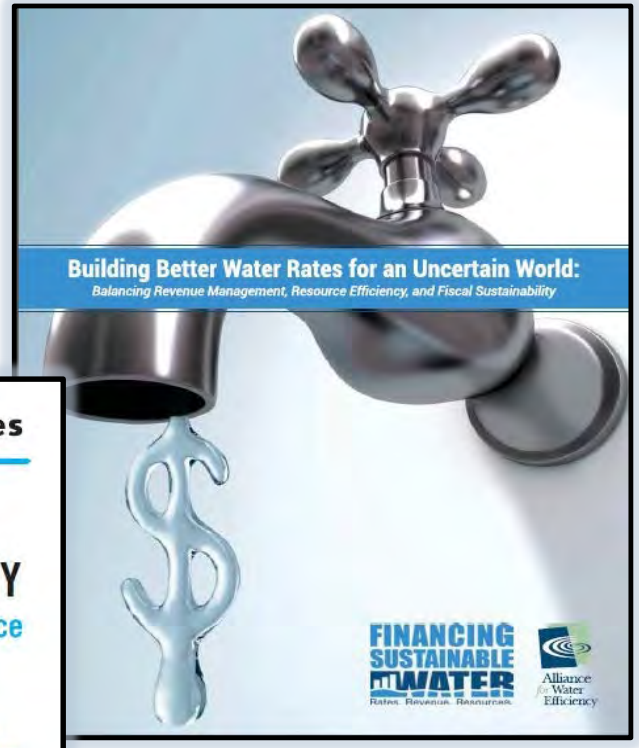
Source: http://news.mit.edu/2017/drought-remedy-keep-infrastructure-fast-cheap-under-control-0814

Water demand forecasting resources









Some performance and investment strategies: Does the utility….

- Control capital costs through sound planning and asset management?
- Employ strategies to improve operational efficiency?
- Consider life cycle costs and a range of alternatives in developing projects?
- Involve customers in establishing service standards and developing projects?
- Evaluate a range of funding and financing options?

Improving operational efficiency

- Controlling costs and improving efficiency can mitigate the impact of revenue shortfalls.
    - Reduce non-revenue water.
    - Improve energy efficiency: water treatment, conveyance, facility management.
    - Revisit procurement and project management policies and practices.
    - Partner with other utilities to achieve scale economies.
    - Consider operating implications of project alternatives.
- System optimization – flushing, meter reading, billing, etc.
- But don't short-change service quality & public health!

WATER
FINANCE & MANAGEMENT

Finance » | Management » | Guest Columns » | Education » | Webinars | Calendar

AUGUST 16, 2017
BY WFM STAFF

Transformational Supply Management Can Yield Critical Funds for Your Utility

By James M. Baehr & Mary Ellen Mitchell

EPA

Supply Chain Resilience: Guide for Water and Wastewater Utilities

Overview

The water and wastewater systems sector depends on several critical infrastructure sectors to operate, including the chemical and critical manufacturing sectors. A wide range of threats such as natural disasters (e.g., hurricanes, earthquakes), equipment failures, logistics problems (e.g., transportation delays), and malicious acts (e.g., cyberattacks, sabotage), can impact the water sector's ability to receive the chemicals or equipment needed to treat or protect water and wastewater. Assessing supply chain resilience can increase your utility's ability to withstand disruptions and respond as quickly as possible if disruptions do occur. The purpose of this guide is to identify actions for water and wastewater utilities to prepare for or respond to chemical or equipment supply chain disruptions. This information can be found in the following sections:

Actions to Prepare for a Supply Chain Disruption

Federal and State Support	Available resources, including grant and low interest loan opportunities such as the Drinking Water State Revolving Fund (DWSRF), that can be used to build resilience to supply chain challenges.
Supplier Management	Best practices for assessing inventory and establishing or maintaining contractual relationships with suppliers and identifying backup suppliers.
Partnerships	Suggestions for identifying mutual aid and assistance, interdependent sectors, and emergency responses partners to prepare for supply chain challenges.
Operational Flexibilities	Considerations for evaluating operational flexibilities (e.g., different grades of the same chemical, alternate chemicals) that may require more time to prepare for and implement.

Actions to Respond to a Supply Chain Disruption

Federal Support	Federal support that can be used in response to a shortage, such as direct technical assistance and the Safe Drinking Water Act (SDWA) Section 1441.
Supplier Communication	Steps utilities can take to coordinate with suppliers during a supply chain emergency.
Partner Coordination	Suggestions for coordinating with partners during a supply chain emergency.

focus on energy
Partnering with Wisconsin utilities

FOR YOUR HOME | FOR YOUR BUSINESS | FOR TRADE ALLY

Water & Wastewater Facilities

Every drop counts. Improve operations through cost-effective upgrades.

With pumps, motors, and other equipment often operating 24 hours a day, seven days a week, water and wastewater facilities can quickly become the largest consumers of energy in a community, accounting for roughly 35 percent of typical municipal energy budgets. Focus on Energy can help improve energy efficiency in these facilities by advising staff on:

- **Equipment Upgrades** – Replacing items such as pumps and blowers with more efficient models
- **Operational Modifications** – Reducing the amount of energy used to perform specific functions, such as wastewater treatment
- **Upgrades to Facility Buildings** – Installing energy-efficient lighting, windows, and heating and cooling equipment

In addition to reducing costs on your utility bills, these upgrades offer environmental benefits. Improving energy efficiency in water and wastewater facilities can help reduce air pollution and Greenhouse Gas (GHG) emissions, by decreasing consumption of fossil fuel-based energy.

Save on Your Energy Bills with the Wastewater Bridge Initiative

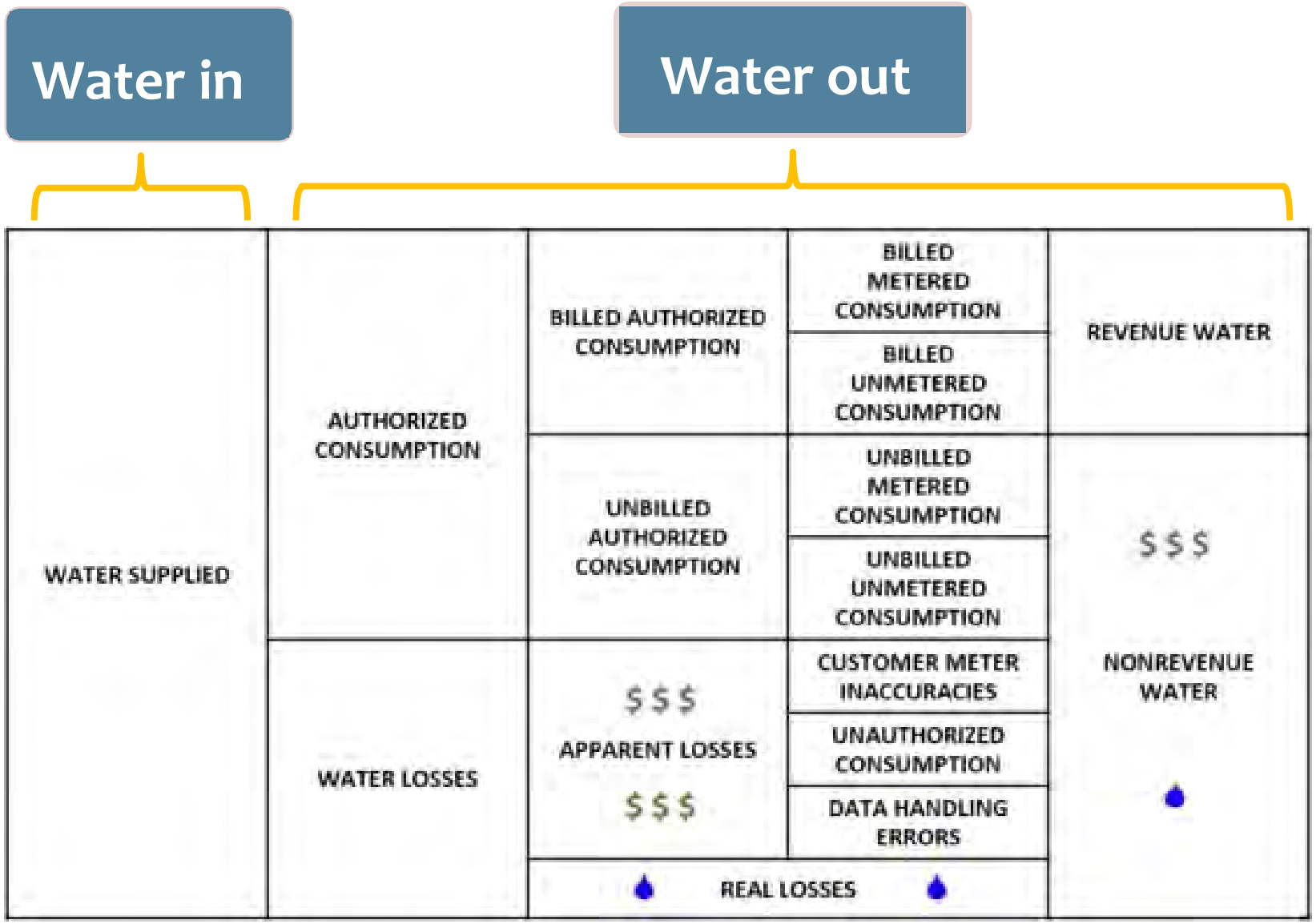
Focus on Energy is partnering with the WI Office of Energy Innovation and US Department of Energy (DOE) to reward wastewater facilities for reducing energy usage at their plants. The Wastewater Bridge Initiative will offer incentives for low and no cost energy conservation measures with a goal of reducing your energy bills by 5%. Incentives are determined by utility bill measured electricity savings (kW and kWh) compared to the prior year's energy use during the same time frame along with actual flow in million gallons (MG). Incentives are offered every six months for up to two years or until a capital upgrade is started. **Sign up with Focus on Energy by March 1st 2017!**

- Visit the Wastewater Bridge Initiative webpage for more information and how to participate!

Reducing non-revenue water

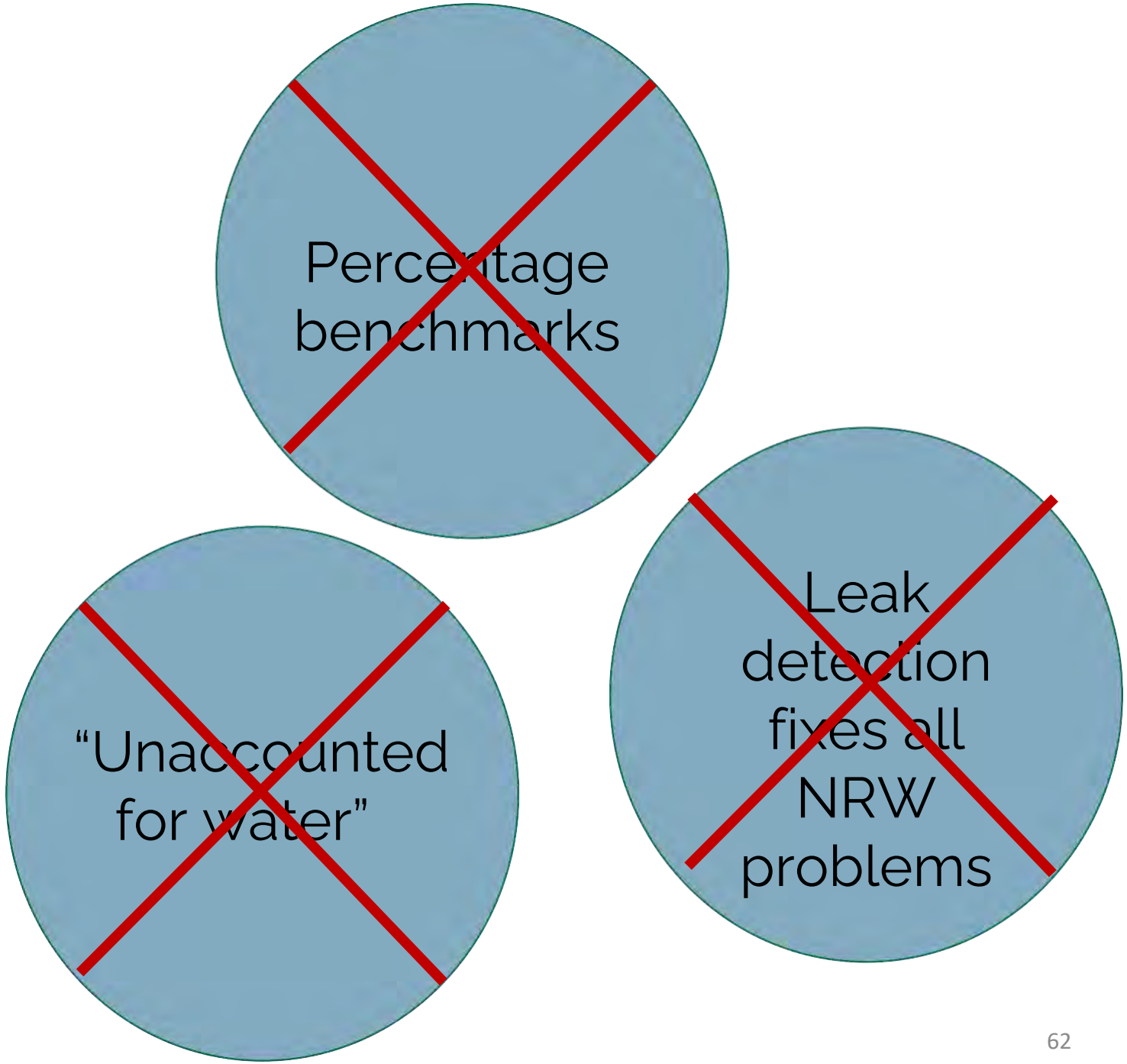
Goals

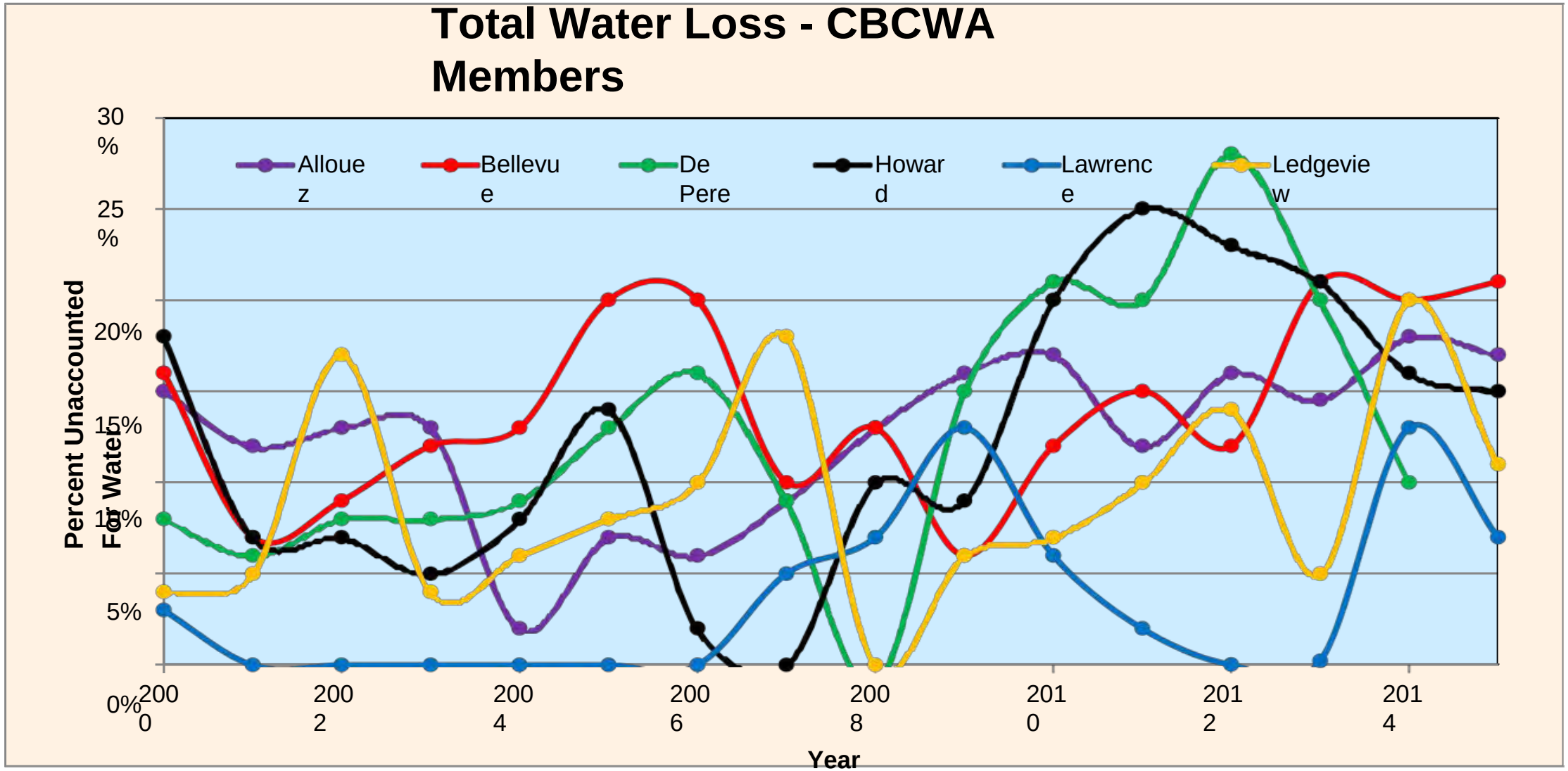
- Account for all water supplied.
- Disaggregate water losses.
- Develop cost-benefit targets.
- Implement cost-effective interventions.



American Water Works Association

- Water loss control programs should incorporate generally accepted industry standards.
- Controlling NRW helps drive adoption of efficiencies and improved business practices.
- NRW analysis should be integrated into rate-setting **and** construction planning.





C:\Users\SBEDUHN\Dropbox\Howard\[UFW Comparison CBCWA Members.xlsx]Sheet2

STANDARD & POOR'S RATINGS SERVICES
McGRAW HILL FINANCIAL

Strong – Utility has performed a water audit consistent with the AWWA M-36 methodology on an annual basis for the prior five years. The utility has a well-structured and documented Non-Revenue Water Management Program that includes ongoing leak detection work and annual accuracy testing of finished water meters and a representative sample of customer meters.

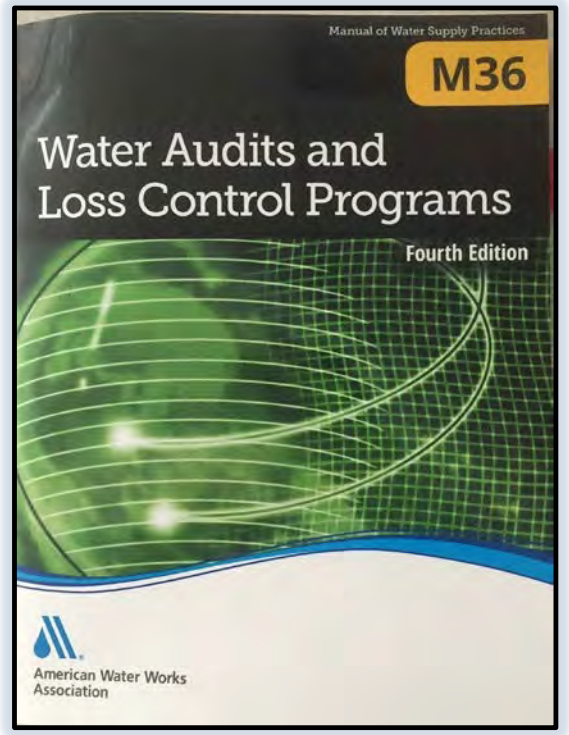
Good – Utility has performed a water audit consistent with the AWWA M-36 methodology on an annual basis for the prior three years. The utility has engaged in specific components of a Non-Revenue Water Management Program such as periodic finished water meter testing, accuracy testing of samples of customer meters and active leak detection.

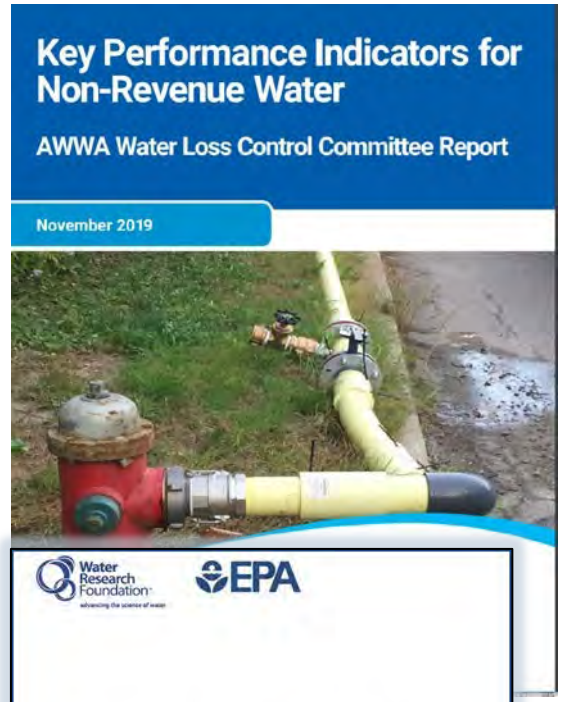
Standard – Utility has performed a water audit consistent with the AWWA M-36 methodology but does not do so on an annual basis. The utility tracks some basic water loss information on a monthly basis but does not have an active Non-Revenue Water Management Program.

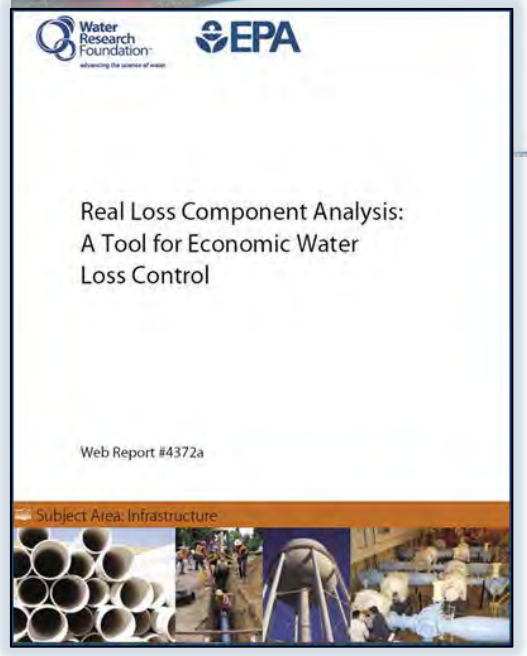
Vulnerable – Utility has not performed a water audit consistent with the AWWA M-36 methodology and does limited tracking of some basic water loss information on a monthly basis. This information is generally reported on a percentage of volume-supplied basis.

Resources

- *Water Audits and Loss Control Programs, M36* by AWWA, 4th Edition (2016)
- AWWA water loss resources: https://www.awwa.org/Resources- Tools/Resource-Topics/Water-Loss- Control
- *Real Loss Component Analysis Tool for Economic Water Loss Control* by WRF and EPA, Project 4372a







Utility performance and accountability

Water Utilities as Anchor Institutions

Impacting the equity, social, and economic fabric of communities and regions

Overview

Water and wastewater utilities are on the front lines of safeguarding public health and protecting the environment in America. They ensure that our water is clean and safe for hundreds of millions of people in communities large and small across the country. Many utilities operate in communities that include populations facing economic hardships such as poverty, unemployment, and aging infrastructure. Utilities are not immune to the effects of these hardships, but they are uniquely positioned as anchor institutions to help address them and create positive economic, social, and environmental impacts in their community. This report shares examples of how utilities promote environmental justice, sustain critical infrastructure investments, and partner with others to advance community goals, often with a focus on utility leadership toward community equity. It is a continuation of EPA's long-standing commitment to work with utilities to promote sustainable management practices, a sustainable water workforce, and sustainable communities.

Anchor Institutions

Anchor institutions are organizations rooted in a specific location that have a long-term interest in the economic and social vitality of the surrounding community.[1] These organizations are often public service entities, such as hospitals, utilities, or universities, who have missions tied directly to the provision of critical services that increa the well-being of the community. Importantly, anchor institutions are also place-based; they often own or mainta large physical infrastructure, such as a campus with multiple buildings, water treatment plants, or conveyance pipe networks that provide drinking water and wastewater services. These physical assets root the enterprise in

GREENWIRE

Gift article

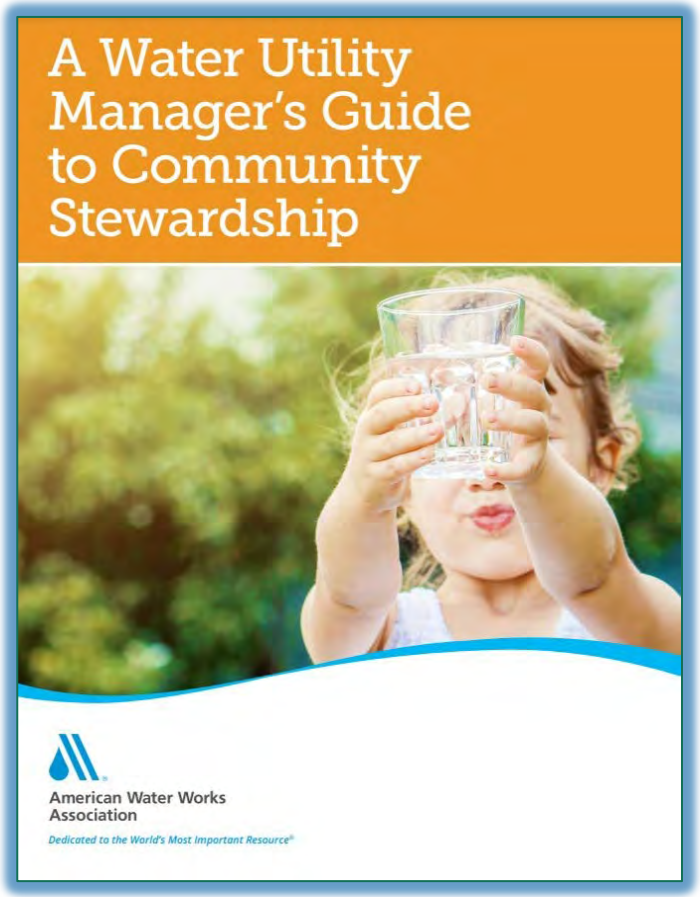
Watchdog: 'Inadequate oversight' led to Jackson, Miss., water crisis

The inspector general faulted state regulators for inaction and poor enforcement ahead of the 2022 disaster.

BY: **KEVIN BOGARDUS** | 08/13/2024 01:32 PM EDT

Inaugural U.S. WASH Convening to Address Water Access Gap, Bringing Together Over 200 Attendees from 100+ Organizations

Vessel™ Collective Leads Collaborative Effort to Ensure Clean Water and Sanitation for All Americans



Community engagement

- Culturally competent engagement
- Utility partnerships with volunteer and community-based orgs
- Beyond education and outreach: two-way communication
- Effective, simplified communications tailored to local norms and languages
- Customer surveys, online scheduling, and help desks

City of Troy Mayor and Administration to Go Door-to-Door for Lead Pipe Testing Canvassing

Part of the Troy Lead Pipe Replacement Initiative, city officials will be joining RPI students and local groups to educate residents on lead pipe testing

The GARAGE RSQ WG COMMUNITY AND YOUTH CENTER

AmeriCorps

Local level accountability resources

- Consumer Confidence Reports
- Bill flyers
- Website
- Rates should be posted and easily accessible
- Annual reports

MADISON WATER UTILITY

Annual Water Quality Report

A SUMMARY OF WATER TESTING CONDUCTED IN 2023

PARA ESPAÑOL HAGA CLIC AQUÍ

This annual report complies with federal and state drinking water regulations, which require us to provide water quality information to our customers each year. Unless otherwise noted, results are based on testing conducted in 2023. We are pleased to report that we continue to supply high quality water that meets or exceeds all federal and state standards for health and safety. **Test results are summarized on page 3.** Visit our website, madisonwater.org, to learn about our programs and projects.

Quality & Reliability Since 1882

YOUR WATER SOURCE

Madison's drinking water comes from a deep sandstone aquifer that sits hundreds of feet below the city. The water originates as rain or snow that slowly soaks into the ground and is filtered through layers of soil and rock. This natural filtration process produces excellent water for us to enjoy.

WHICH WELL SERVES MY ADDRESS?

The Madison water system consists of 20 active wells and over 900 miles of interconnected pipes. Most locations receive water from one to three wells. Our website has an application that can tell you which wells supply water to your home or business. There are links to detailed reports with the latest water quality test results. For more information, call the Water Utility or go to madisonwater.org.

WHAT KEEPS OUR WATER SAFE?

The high-quality aquifer supplying our drinking water requires little treatment. Madison Water Utility disinfects the water with chlorine to reduce the risk of microbial contamination. A small amount of chlorine kills bacteria and viruses that can be present in groundwater. Chlorine also travels with the water and is ready to kill microbes that it might encounter in the system. Our goal is to maintain a chlorine residual above 0.1 milligrams per liter (mg/L) at all points in the distribution system. Typical concentrations range from 0.2 to 0.4 mg/L.

Did You Know?

One 12-ounce cup of salt is enough to treat a 10-foot driveway or 10 sidewalk squares when it snows. Reducing winter salt use helps protect Madison's drinking water. Learn more at [illegible]

HOW ELSE IS MY WATER TREATED?

Fluoride is added to Madison drinking water to improve dental health and reduce tooth decay. The US Centers for Disease Control and Prevention (CDC) and Wisconsin Department of Health Services recommend maintaining an average fluoride level of 0.7 mg/L. Water from each well is tested daily to achieve this target. In 2023, the system-wide average of 0,696 tests was 0.67 mg/L.

Three wells have filters that remove more than 95% of the iron and manganese before it enters the piping system. These filters reduce the occurrence of rust-colored water at the customer tap.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Environmental Protection Agency's Safe Drinking Water Hotline at **800-426-4791**.

Cryptosporidium and Giardia, two organisms commonly linked to water-borne illness, are found primarily in surface waters such as lakes and rivers. Because Madison's drinking water comes from a deep groundwater aquifer, these organisms do not pose a significant health risk in Madison tap water.

MadCAP

MadCAP assists eligible households by providing up to a $30 monthly credit, or discount, on their Municipal Services Bill. The MadCAP program credit spreads across all Municipal Services, not just water. Once enrolled, the credit is automatically applied monthly to customer bills and does not need to be renewed. Call **608-266-4651** or visit madisonwater.org for more information.

American States Water Company

2023 Annual Report

EPA United States Environmental Protection Agency

Consumer Confidence Report Rule Revisions

Pitt's Water Collaboratory issued report cards for Allegheny County water systems

August 17, 2023

Water Authority

Transparency Grading Rubric

	Needs Improvement	Satisfactory	Pro-Active	Best Practice
Board of Directors (BOD) Meeting Accessibility Note: The Board of Directors focuses on governance and fiduciary responsibilities. Community Advisory Committees (CAC) are focused on advice and insight, including from the lived shared experience of community members	No public board meetings No in-person or virtual mechanism in place for public participation in board of directors meetings (public comment, etc.) **OR** Insufficient information on one of the categories below Type(s) of board meeting participation Meeting process description on the website Registration requirements for speakers Public comment placement on the meeting agenda	Practices 4 of the following: In-person board meeting Virtual board meeting Sufficient information on website Public comment at beginning of meeting Public comment for registered speakers Public comment for unregistered speakers	Practices 5 of the following: In-person board meeting Virtual board meeting Sufficient information on website Public comment at beginning of meeting Public comment for registered speakers Public comment for unregistered speakers	Practices all of the following: In-person board meeting Virtual board meeting Sufficient information on website Public comment at beginning of meeting Public comment for registered speakers Public comment for unregistered speakers
Community Advisory Mechanisms	No community advisory committees (CAC) separate from the Board of Directors	Community advisory committee(s) exist Membership consists of multiple stakeholders in the community	Community advisory committee(s) exist Membership consists of multiple stakeholders in the community including content experts and context experts (residents)	Community advisory committee(s) exist Membership consists of multiple stakeholders in the community including content experts and context experts (residents) The public is able to engage with and participate in committee decisions in two-way dialogues
Ease of Reporting Complaints	None of these complaint submission methods exist: by phone, online form, or in-person form **OR** Written complaint form is not on the front page of the website	One formal method to submit a complaint (e.g. phone, online form, or in-person form)	Two formal methods to submit a complaint (e.g. phone, online form, or in-person form)	Formal complaints can be submitted by phone, online form, and in-person form

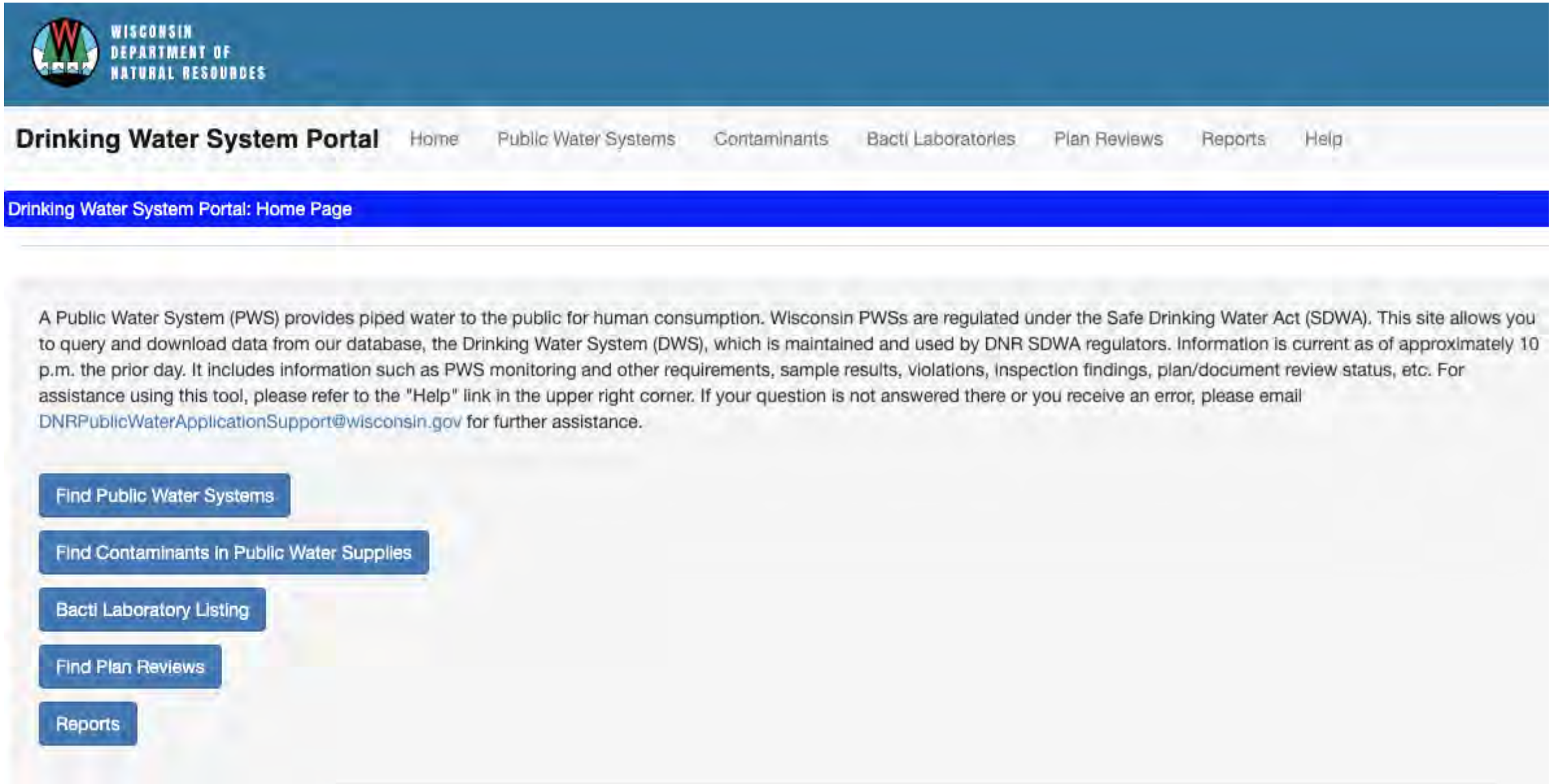
LOUISIANA DEPARTMENT OF HEALTH
Engineering Services

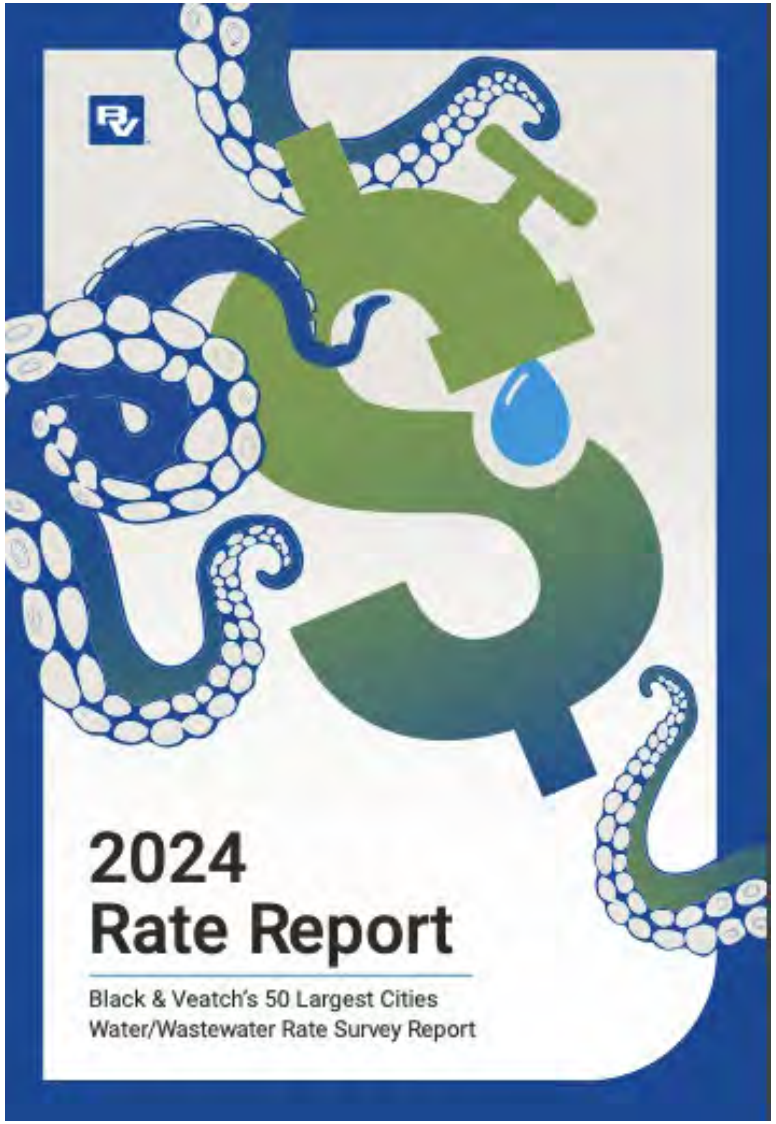
2022 Water Grade Details
ST BERNARD PARISH WATERWORKS

Standard	Standard Maximum	Point Deductions	Detailed Assessment of Standards		System Deductions
Federal Water Quality	-30	5 each	Maximum contaminant level violations	0	-0
		5 each	Treatment technique violations for Lead and Copper Rule	0	
		10	Is the system non-compliant with an administrative order?	No	
State Water Quality	-10	1 each	Chlorine violations	0	-0
		10	Does the water System have an operator?	Yes	
		5 each	Water outages and/or boil notices	0	
Financial Sustainability	-10	5	Did the system submit an acceptable rate study or implement an adequate rate?	No	-5
		5	Did the water system submit an acceptable audit?	Yes	
		10	Is the system under a fiscal administrator for poor financial management practices?	No	
		5	Are there other negative circumstances that affect fiscal control of the water system?	No	
Operations & Maintenance	-15	3 each	Unresolved significant deficiencies	0	-0
Infrastructure	-20	5 each	Unresolved significant deficiencies	0	-0
Customer Satisfaction	-10	1 each	Valid water complaints reported	7	-7
		10	Did the system submit a water complaint log?	Yes	
Secondary Contaminants	-5	5	Manganese and/or Iron level(s) over the secondary maximum contaminant level(s)	No	-0
Bonus	+10	5 each	Asset management plan, storage or well assessment & maintenance plan, participation in capacity development or management training	0	+0
				Total Deductions + Bonus	-12
				Score	88 / 100 = 88%

Source: https://ldh.la.gov/assets/oph/Center-EH/drinkingwater/Watergrade/WaterGrade-2022/StBernard/LA1087001_WaterGrade_2022.pdf

State level accountability resources





Trend in average typical bill for residential water and sewer customers (7,500 gallons).

Source: Black & Veatch

Figure 7

Trend in average typical bill for residential water and sewer customers (3,750 gallons).

Source: Black & Veatch

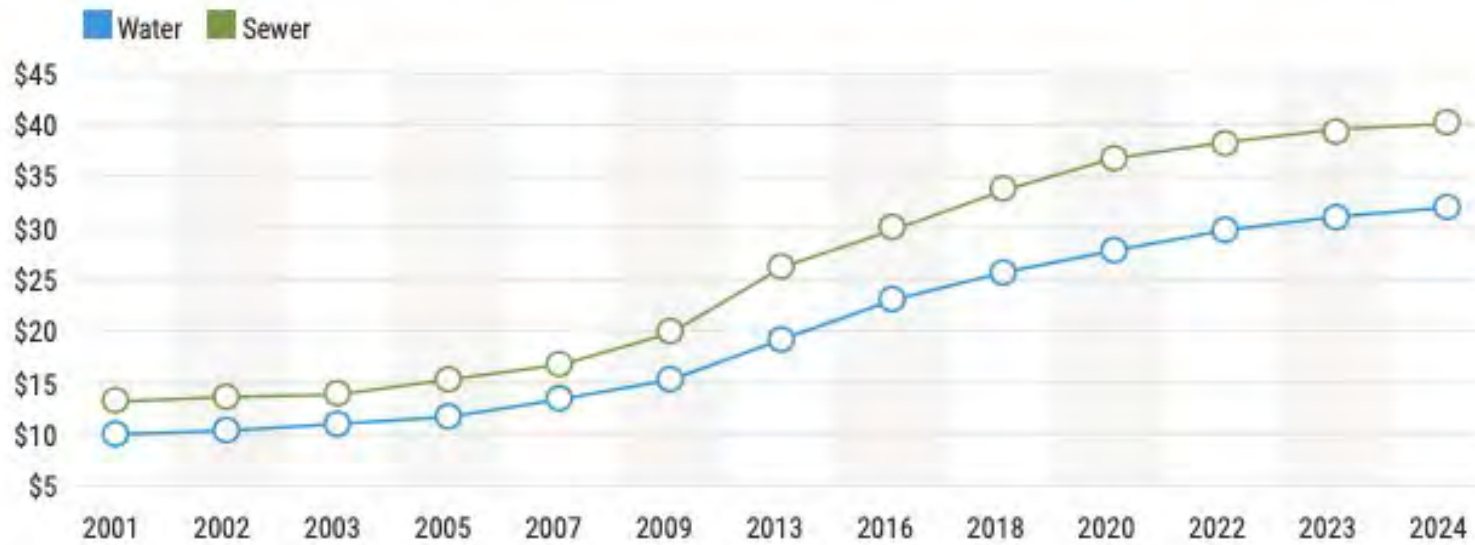
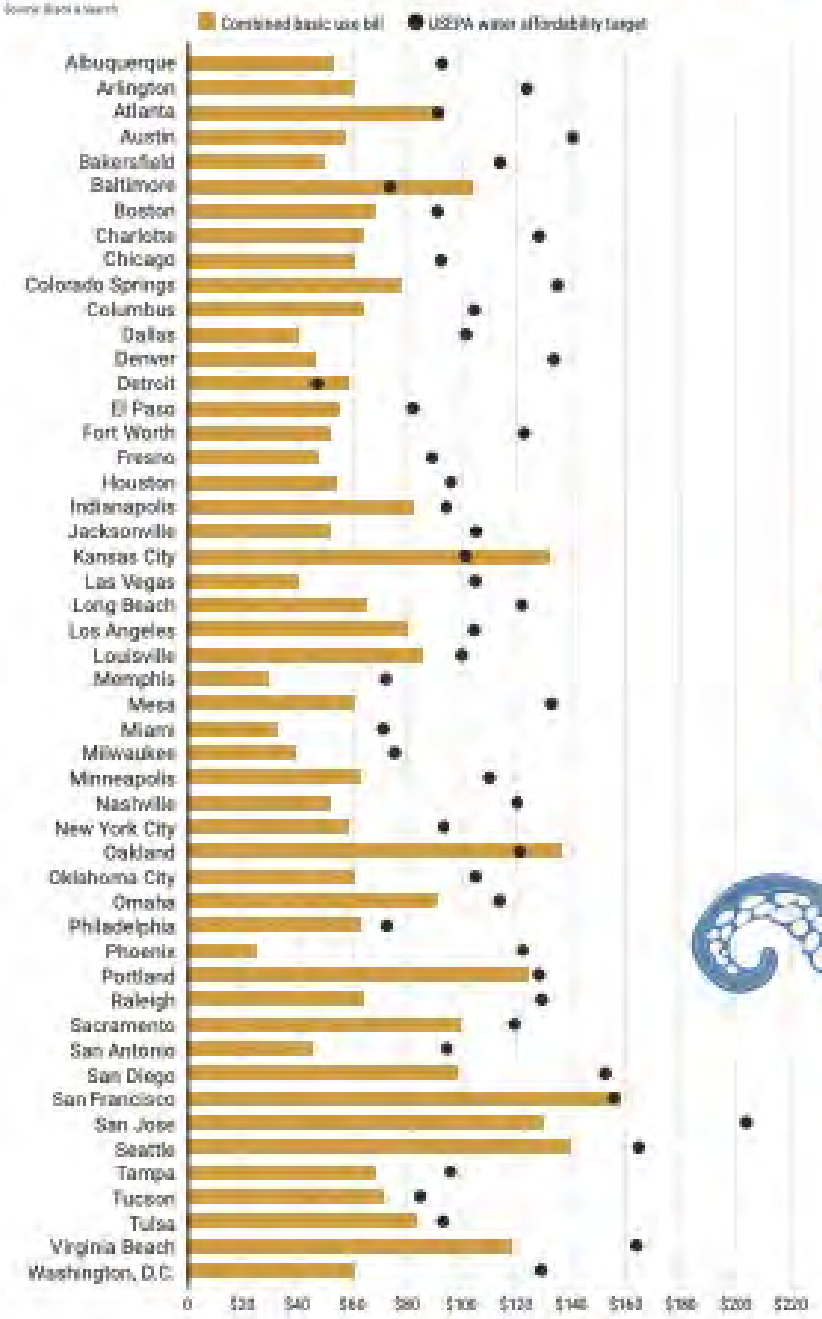


Figure 10

Typical residential combined bill for basic use versus USEPA affordability target.



POLITICS

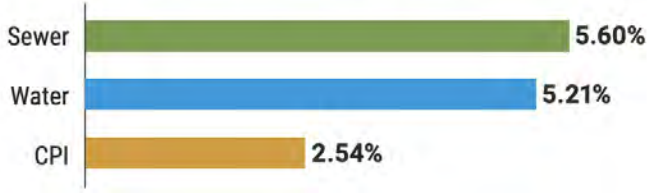
New legislation would provide permanent water affordability in Michigan

CBS NEWS DETROIT

By AJ Walker
February 6, 2024 / 12:19 AM EST / CBS Detroit

Compound average rate of change in surveyed typical bills (2001-2024).

To answer the question as to why water and sewer rates increase at a faster rate than inflation, we examined what inflation really means in the water industry.



Options for addressing water service affordability

- **Control capital and operating costs** through sound planning, asset management and optimized funding and financing.
- **Increase billing frequency.**
- **Rates**
  - Reduce percentage of bill that is fixed.
  - Allotments for minimal amount of water in first rate block at relatively low cost to all customers.
  - Income-based rates or customer assistance programs (CAPs) for customers who qualify
- **Programs**:
  - Customer conservation assistance
  - Private service line assistance
  - Partner with local charity to provide assistance
  - Financial assistance for customer-owned lead service line replacement

Rate design options: fixed vs. variable charges

Higher fixed charge

Advantages

- Revenue stability.
- In the short run, many costs are fixed.
- Administrative simplicity.

Disadvantages

- Not Cost of Service-based. Peak demand costs are in the fixed component.
- May create affordability concerns for low-income customers.
- Mutes price signal - resource efficiency concerns.

Higher variable charge

Advantages

- In the long run, all costs are variable.
- Cost of Service-based. Peak demand costs are in the variable component.
- May allow low-income customers to manage bills more easily.
- Enhanced price signal - addresses resource efficiency concerns.

Disadvantages

- Increased revenue risk.
- May be more administratively complex.

Public fire protection charges

- **PFP Charge:** Recovers costs associated with building and maintaining capacity to provide high pressures and flows to hydrants for the purpose of fire suppression.
- The PFP is typically a **fixed charge**.
- Portion of wells, pumps, storage facilities, water mains, and hydrants.
- It is not simply a “hydrant rental” fee.
- Either direct charge to customers or charge to municipality.
- As demand declines, PFP costs comprise an increasing % of revenue requirements.

See: https://efc.web.unc.edu/2018/03/07/exploring-public- fire-protection-charges-in-wisconsin/

Example: Municipality pays PFP; recovers cost through property taxes

Public Fire Protection Service

Public fire protection service includes the use of hydrants for fire protection service only and such quantities of water as may be demanded for the purpose of extinguishing fires within the service area. This service shall also include water used for testing equipment and training personnel. For all other purposes, the metered or other rates set forth, or as may be filed with the Public Service Commission, shall apply.

The annual charge for public fire protection service to the Village of Baldwin shall be $182,103. The utility may bill for this amount in equal quarterly installments.

Billing: Same as Schedule Mg-1.

Example: PFP is a direct charge on water bill

Based on Meter Size

Quarterly Public Fire Protection Service Charges:

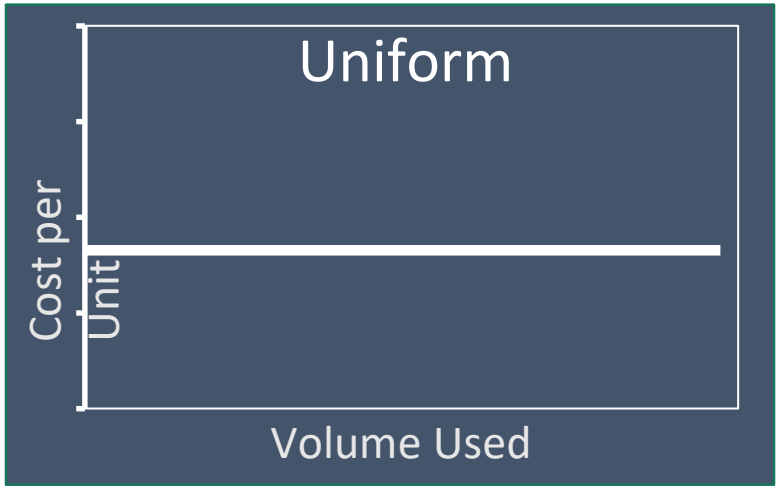
⅝ - inch meter - $	9.25	3 - inch meter - $	138.71
¾ - inch meter - $	9.25	4 - inch meter - $	231.18
1 - inch meter - $	23.11	6 - inch meter - $	462.36
1¼ - inch meter - $	23.11	8 - inch meter - $	739.79
1½ - inch meter - $	46.24	10 - inch meter - $	1,109.67
2 - inch meter - $	73.97	12 - inch meter - $	1,479.56

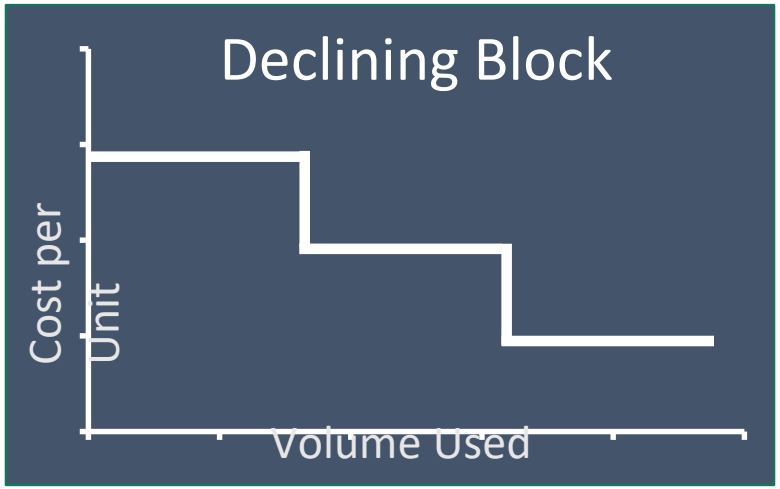
Based on Property Value

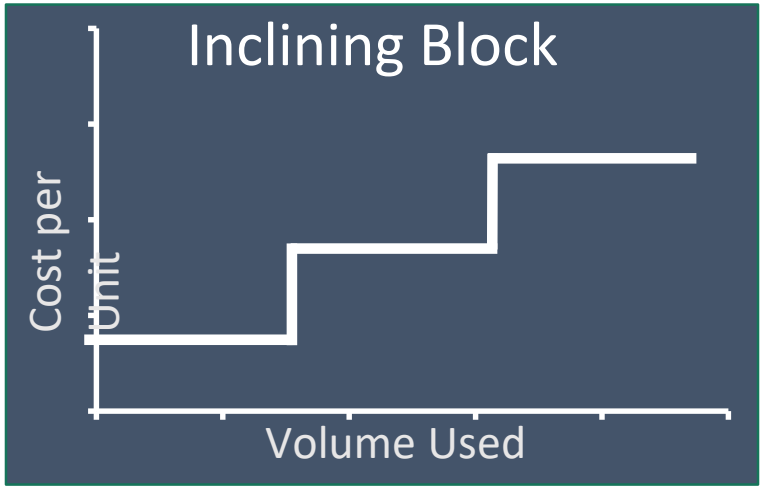
Quarterly Public Fire Protection Service Charges:

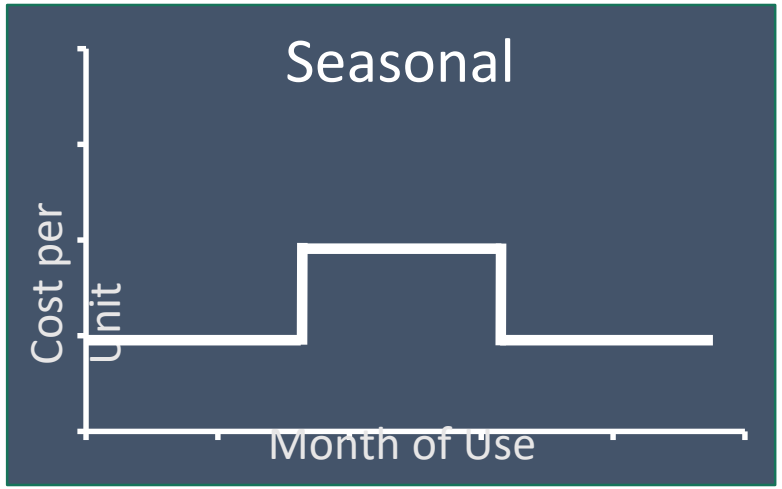
Fair Market Value of Improvements			Quarterly Charge
$ 0	-	$ 99,999	$ 8.40
$ 100,000	-	$ 199,999	$ 12.60
$ 200,000	-	$ 499,999	$ 27.00
$ 500,000	-	$ 999,999	$ 70.50
$ 1,000,000	-	$ 2,999,999	$ 190.50
$ 3,000,000	-	$ 5,999,999	$ 376.20
$ 6,000,000	-	$ 11,999,999	$ 769.20
$ 12,000,000	-	$ 25,000,000	$ 1,620.00

Water rate design options









Rate design option: Gallon allotment in first block

Quarterly Service Charges:

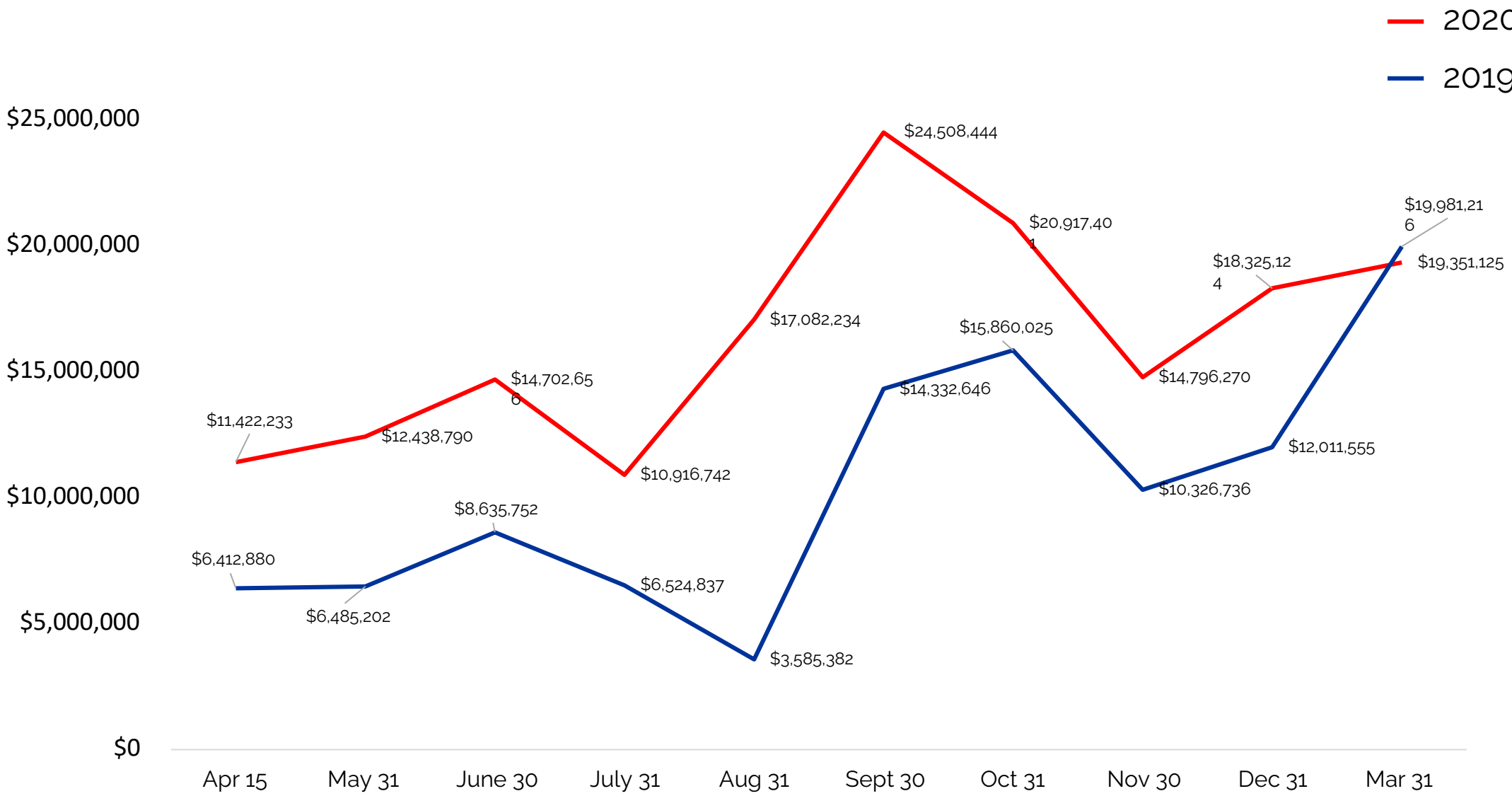
⅝ - inch meter - $	36.07	3 - inch meter - $	63.65
¾ - inch meter - $	36.07	4 - inch meter - $	84.87
1 - inch meter - $	40.31	6 - inch meter - $	116.70
1¼ - inch meter - $	42.44	8 - inch meter - $	148.53
1½ - inch meter - $	47.74	10 - inch meter - $	190.96
2 - inch meter - $	53.05	12 - inch meter - $	233.40

For PSC use only: base 5/8-inch meter charge for SRC purpose - 34.00

Plus Volume Charges:

First	5,000	gallons used each quarter - Service Charge
Next	13,000	gallons used each quarter - $3.72 per 1,000 gallons
Next	18,000	gallons used each quarter - $2.91 per 1,000 gallons
Over	36,000	gallons used each quarter - $1.60 per 1,000 gallons

Wisconsin residential water arrears



State level accountability resources

Water Residential Customer Data – Disconnection, Arrears, and Tax Roll

	Description (a)	Amount (b)
Disconnection Notices		
1.	Total number of disconnection notices sent to residential customers for non-payment as of March 31	0
2.	Total number of disconnection notices sent to residential customers for non-payment as of June 30	0
3.	Total number of disconnection notices sent to residential customers for non-payment as of September 30	0
4.	Total number of disconnection notices sent to residential customers for non-payment as of December 31	91,268
Disconnections		
1.	Total number of residential disconnections of service performed for non-payment as of March 31	0
2.	Total number of residential disconnections of service performed for non-payment as of June 30	0
3.	Total number of residential disconnections of service performed for non-payment as of September 30	0
4.	Total number of residential disconnections of service performed for non-payment as of December 31	0
Arrears (Customers)		
1.	Total number of residential customers with arrears as of March 31	35,458
2.	Total number of residential customers with arrears as of June 30	0
3.	Total number of residential customers with arrears as of September 30	36,498
4.	Total number of residential customers with arrears as of December 31	28,308
Arrears (Dollar Amounts)		
1.	Total dollar amount of residential customer arrears as of March 31	5,831,263
2.	Total dollar amount of residential customer arrears as of June 30	0
3.	Total dollar amount of residential customer arrears as of September 30	9,098,315
4.	Total dollar amount of residential customer arrears as of December 31	4,249,248
Tax Roll		
1.	Total number of residential customers with arrears placed on the tax roll	15,554
2.	Total dollar amount of residential arrears placed on the tax roll	7,885,015
	Footnotes	**Yes**

Federal Low Income Household Water Emergency Assistance Program (LIHWAP)*

- Administered by U.S. Department of Health & Human Services (HHS).
- Grantees: States, territories, and tribal governments.
- Total funds: $1.38 billion. Originally $638 million in the **Consolidated Appropriations Act** (December 2020); additional $500 million from the **American Rescue Plan Act** (March 2021).
- **Use of funds**: Assist low-income households that pay a high proportion of household income for drinking water and wastewater services by paying water and wastewater utilities to reduce arrearages (debts past due) and rates charged to the households.
- Prioritizes **continuity of service**.

*See: https://www.acf.hhs.gov/oc/programs/lihwap

Consumer protection policies/rules

- Offer reasonable deferred payment arrangements (DPAs).
- No disconnection (shut-offs) for non-payment.
- Meter testing requirements.
- Credits or refunds for the full period of a meter inaccuracy.
- Bill all service supplied within specified, reasonable period of time.
- Leak credits.

- Written policies that are applied to all customers consistently.

NCLC National Consumer Law Center

A New Customer Bill of Rights: Affordable Utility Services

LIHWAP Implementation and Impact Report

June 2021 - June 2023

Adjusting benefit levels for households

Read more

Allowing for Credits on Beneficiary Accounts

Read more

Data Matching

Read more

Collaborative Outreach

Read more

Implementing Program Funding Flexibilities

Read more

Collaboration with Local Agencies

Read more

Redeeming Property Liens

Read more

Source: https://acfhhs.foleon.com/lihwap/impact-report/

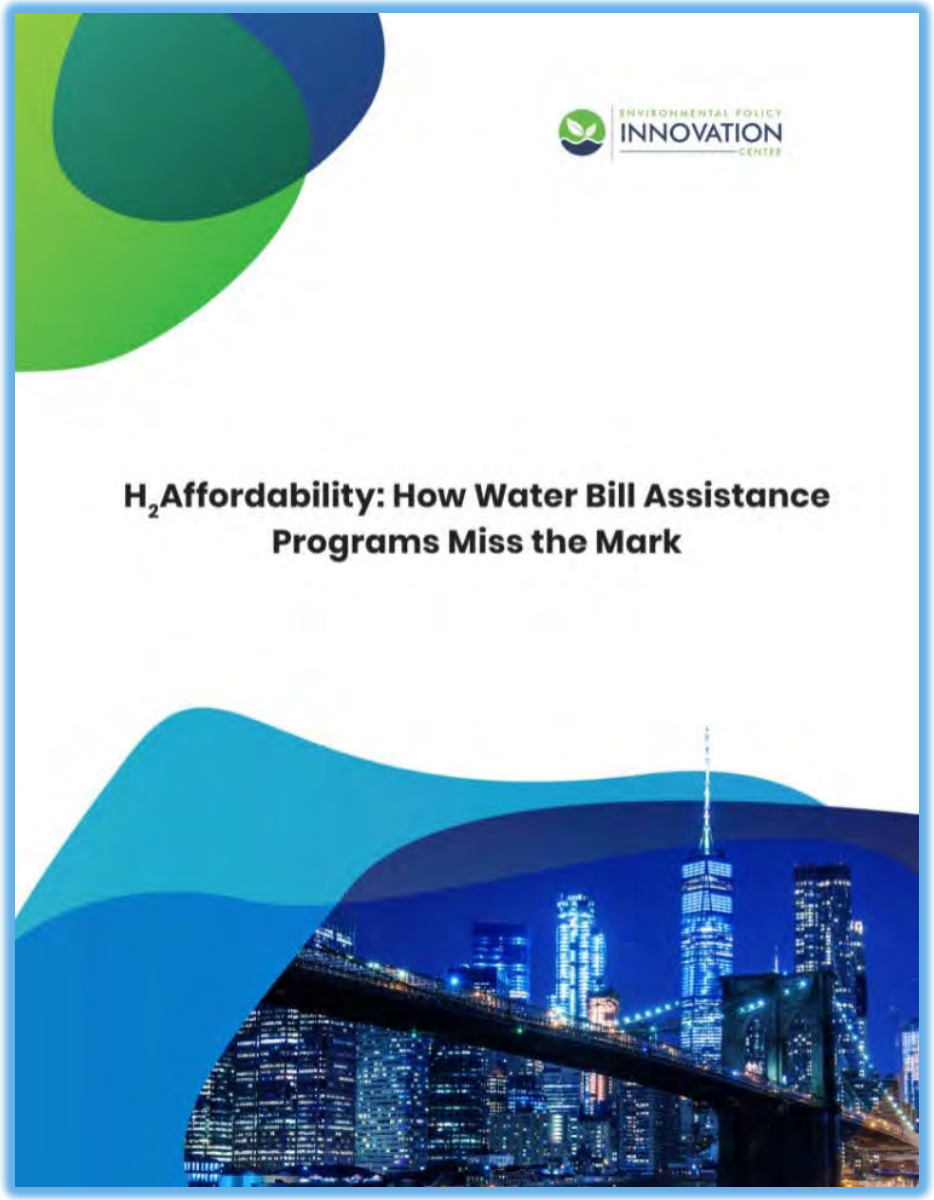
Customer Assistance Programs

Advantages

- Help ensure low-income customers remain connected and are able to pay future bills.
- Can reduce administrative costs (collections).
- May reduce bad debt expenses.
- Enhance utility's image and community engagement.
- Can help meet efficiency goals.

Disadvantages

- May be considered "discriminatory;" assistance may be considered a "gratuity."
- Restrictions on uses of public funds and/or bond covenant restrictions.
- Program costs may run counter to cost minimization directives.
- Participatic


ENVIRONMENTAL POLICY
INNOVATION
CENTER
H2Affordability: How Water Bill Assistance Programs Miss the Mark

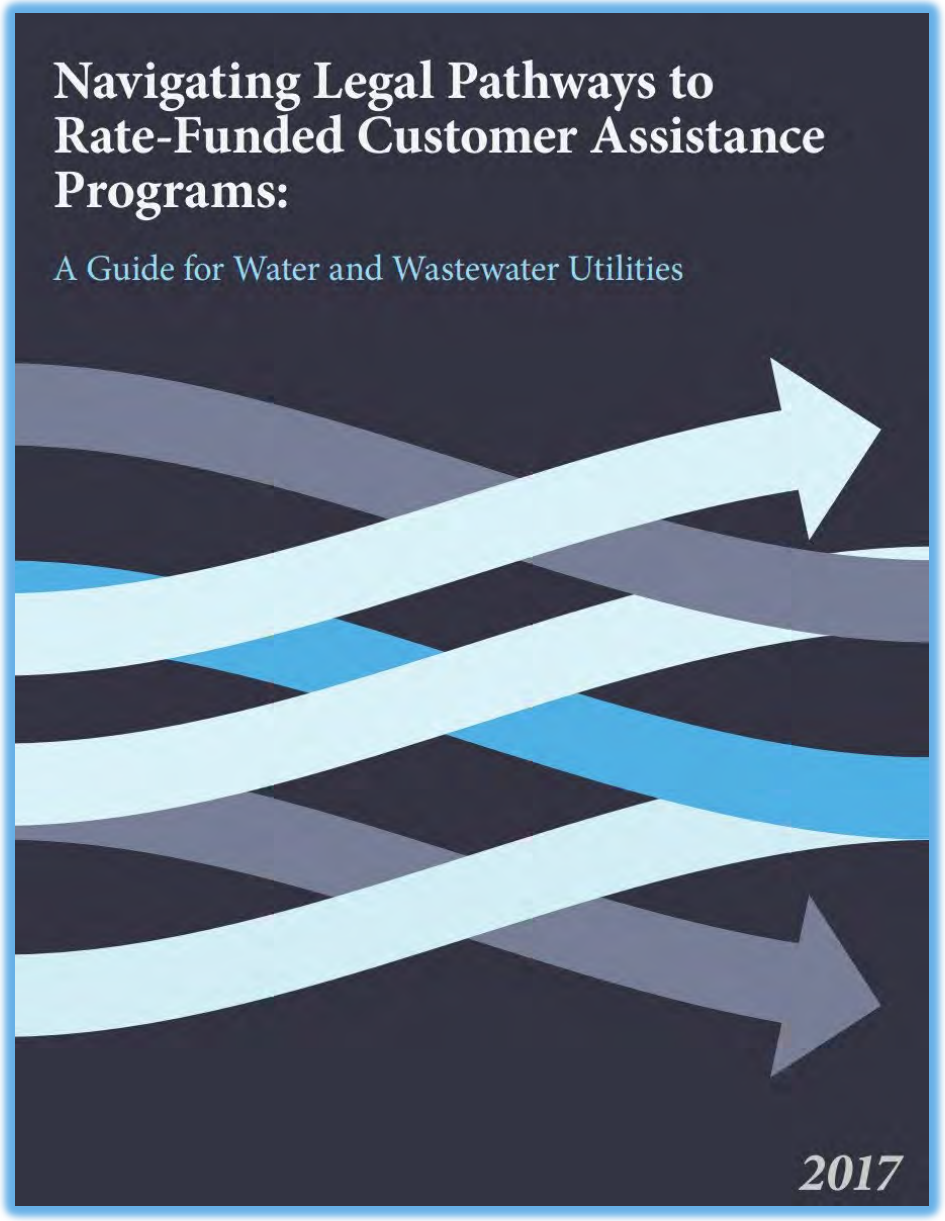
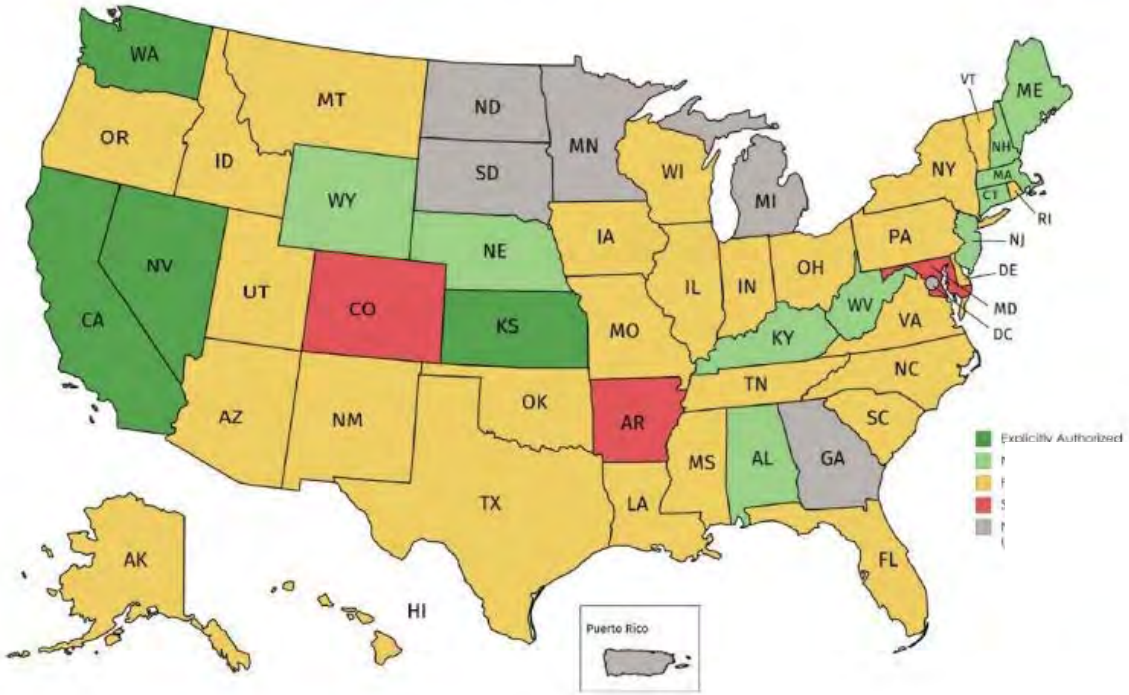
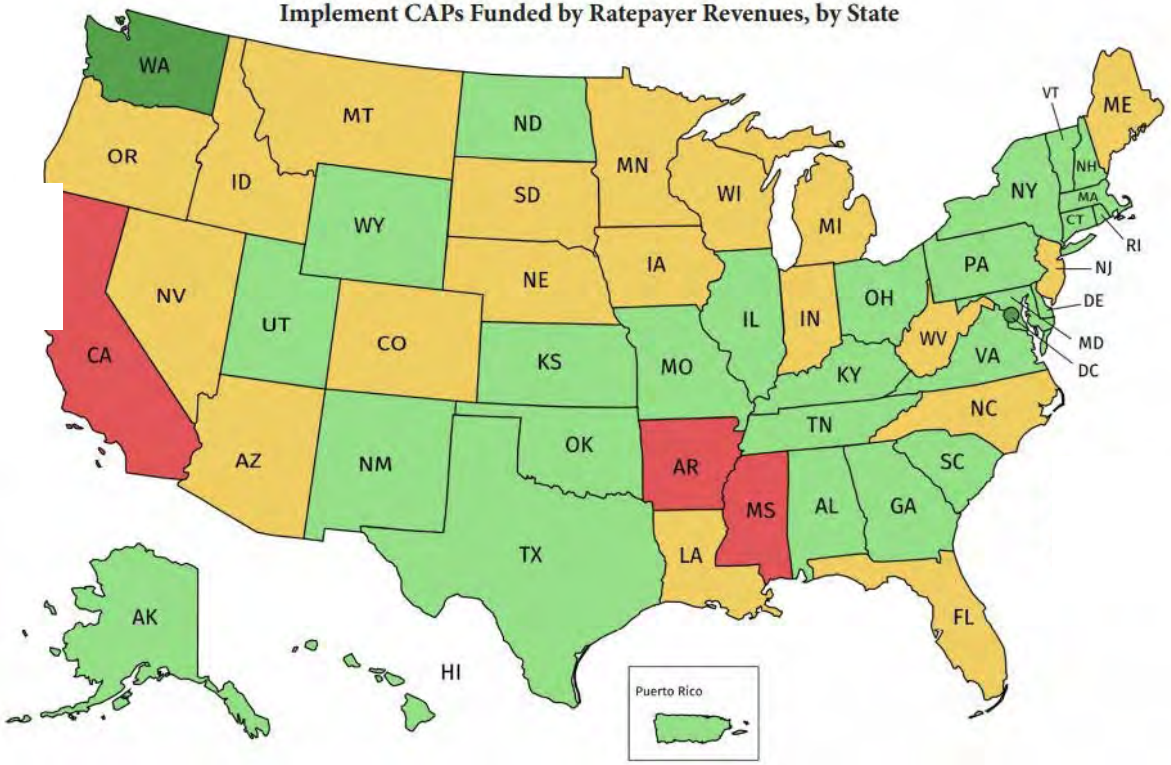

Navigating Legal Pathways to Rate-Funded Customer Assistance Programs:
A Guide for Water and Wastewater Utilities
2017

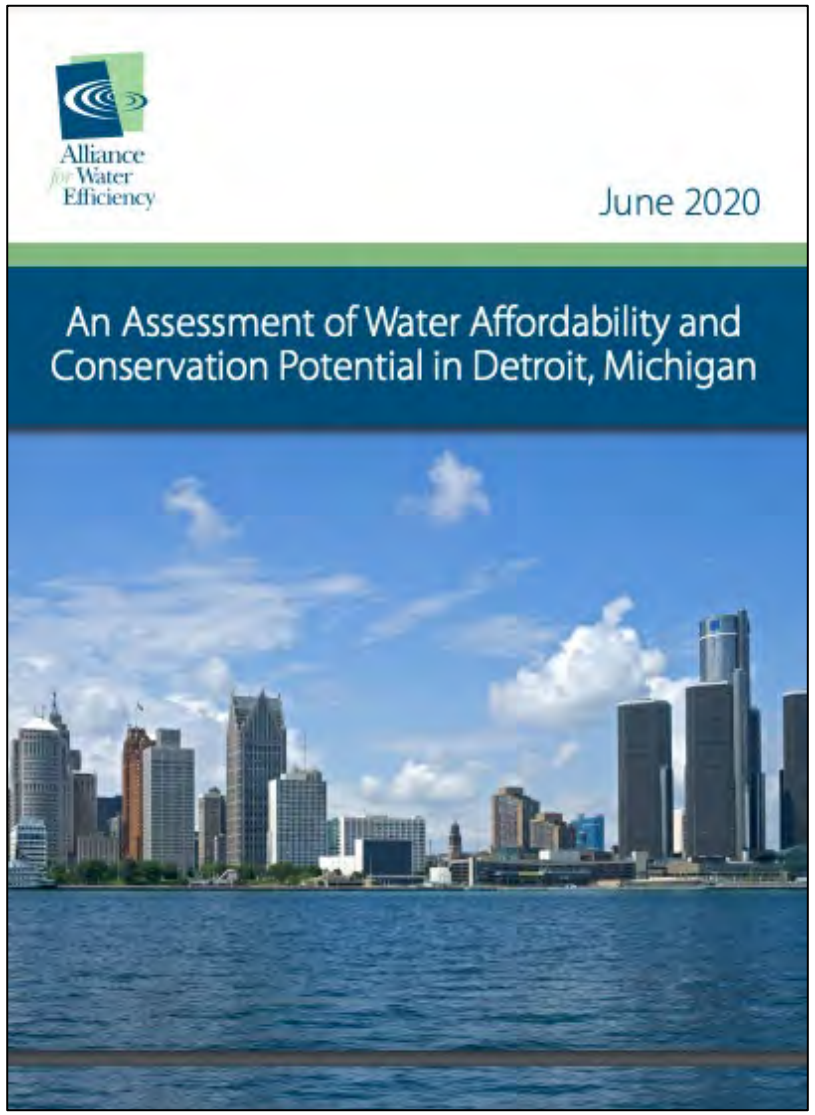
Figure 1. Commission-Regulated Utilities: Ability to Implement CAPs Funded by Ratepayer Revenues, by State

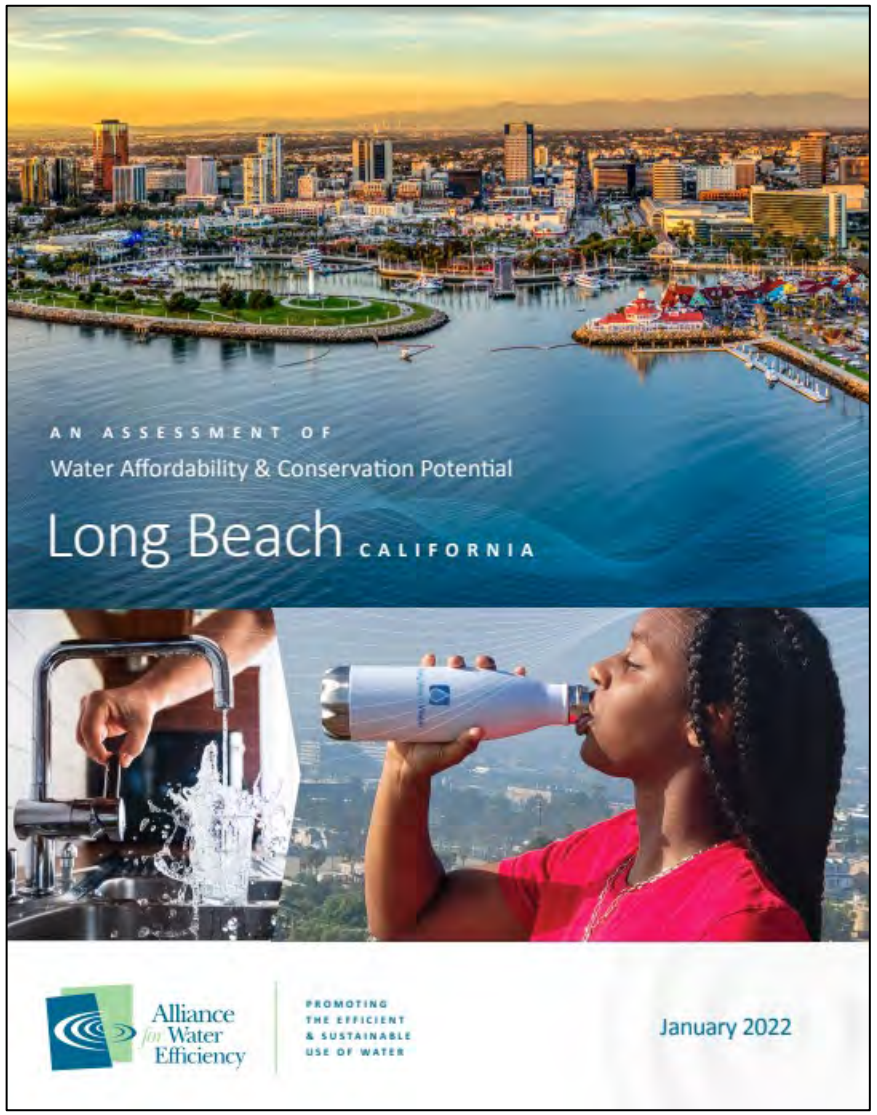


Explicitly Authorized
No Express Authority
Potential Challenges
Specifically Prohibited

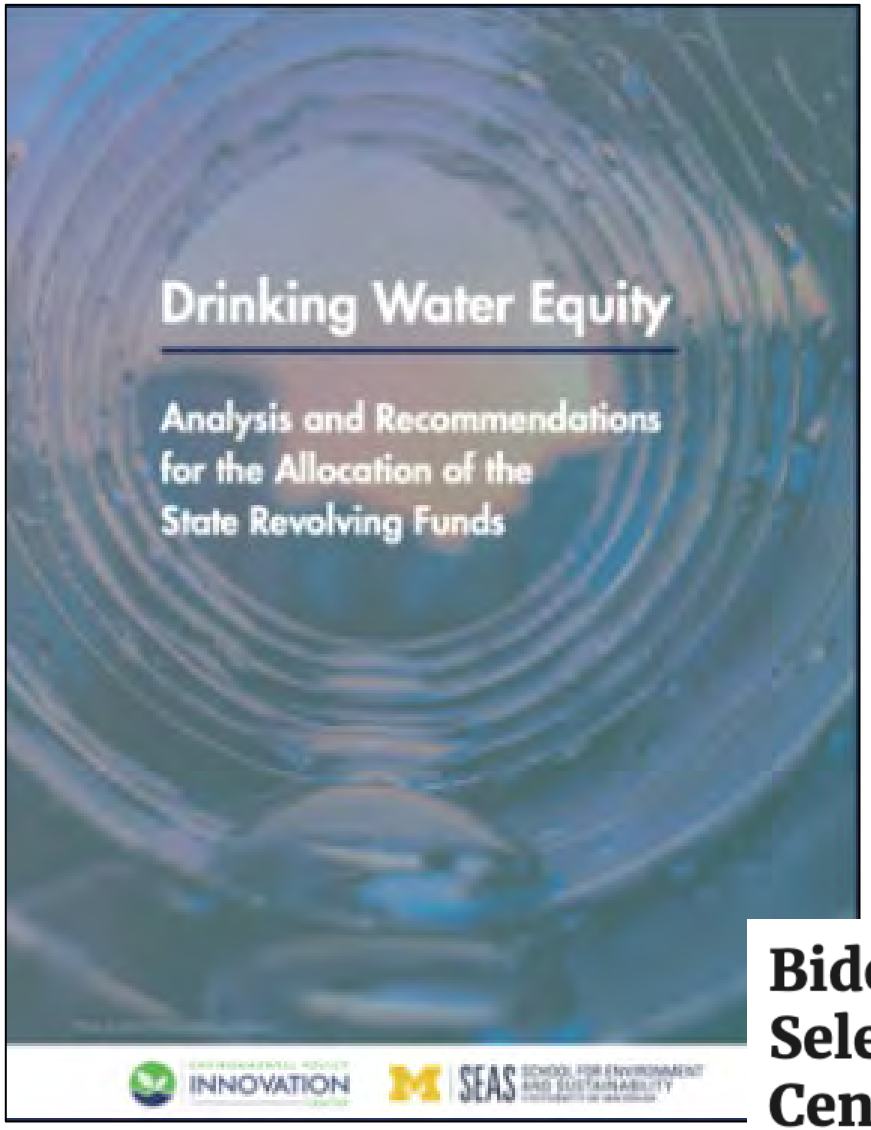
Figure 2. Noncommission-Regulated Utilities: Ability to Implement CAPs Funded by Ratepayer Revenues, by State







See: https://www.allianceforwaterefficiency.org/impact/our-work



Survey shows high confidence in U.S. tap water, lower satisfaction among Black, Hispanic respondents

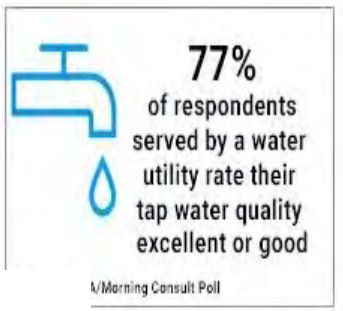
July 15, 2020

Connections Article, Publications

Four in five Americans (77%) served by a water utility say the quality of their tap water is excellent or good, although Black and Hispanic consumers report a lower level of satisfaction, according to a recent survey conducted by Morning Consult on behalf of the American Water Works Association (AWWA).

The survey, *Public Perceptions of Tap Water*, was conducted June 10-13, 2020. Results from the full survey have a margin of error of plus or minus 2%.

Among a sample of 2,200 U.S. adults, 1,940 said they are served by a water utility. Respondents were interviewed online, and the data were weighted to approximate a target sample of U.S. adults based on gender, educational

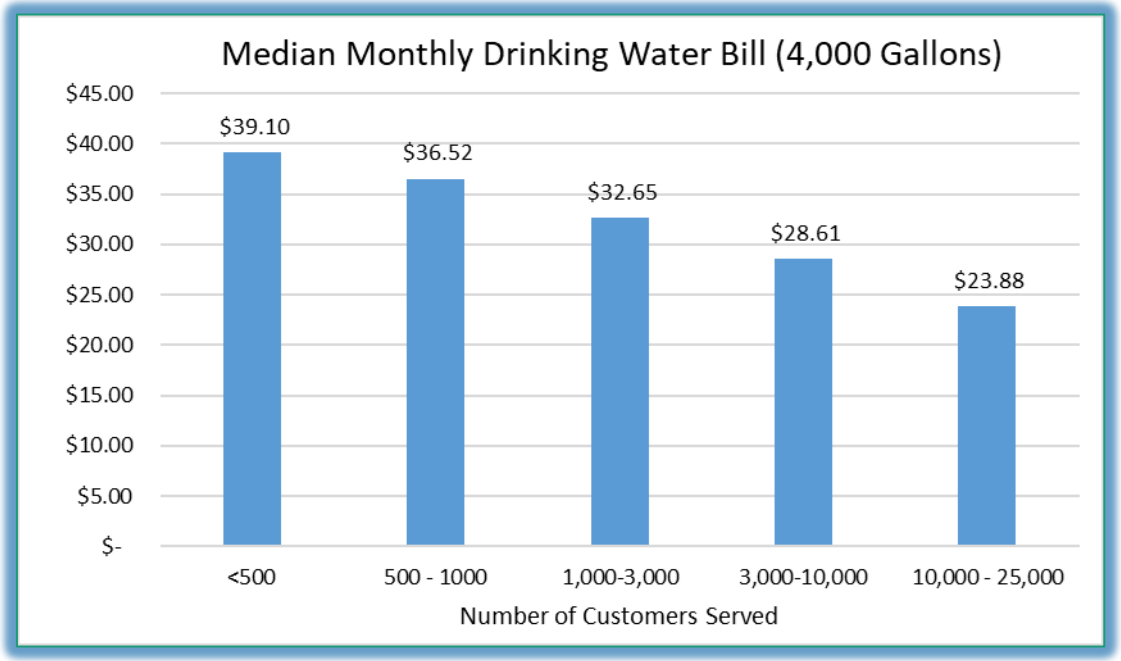


Biden-Harris Administration Announces Selection of 29 EPA Environmental Finance Centers to Help Communities Access Funds for Infrastructure Projects

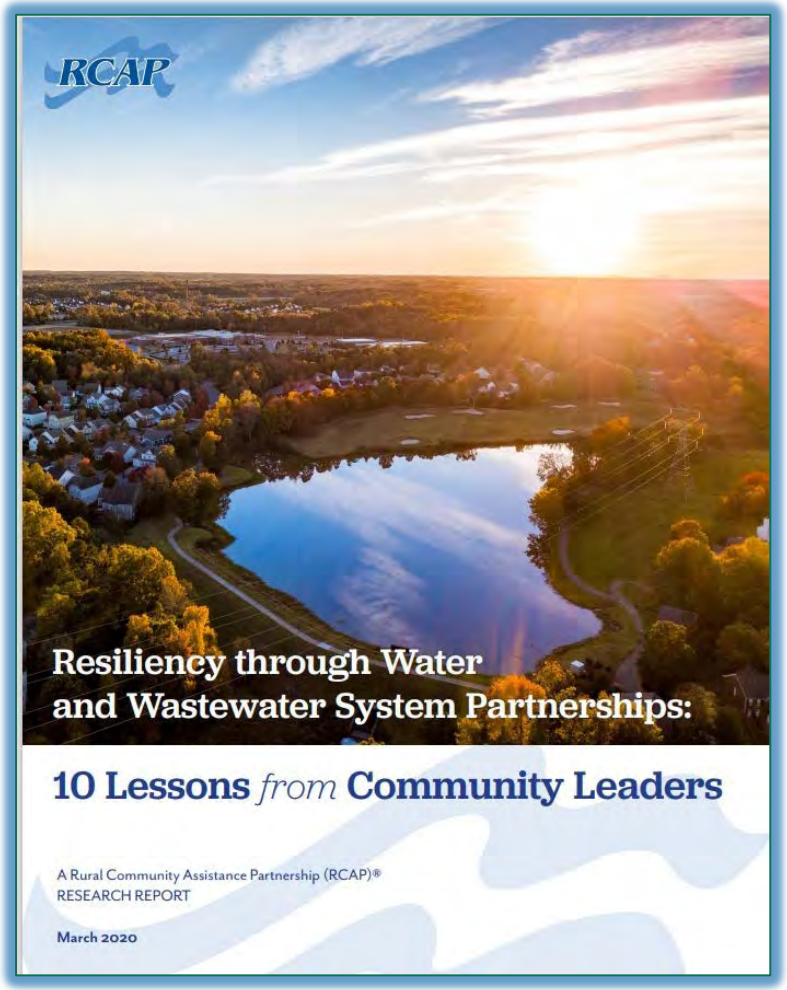
November 4, 2022

Utility size matters

Wisconsin drinking water utility tariff data:



Partnerships



Increasing Transfer of Responsibility

Informal Cooperation	Contractual Assistance	Shared Governance	Ownership Transfer
Work with other systems, but without contractual obligations	Requires a contract, but contract is under systems' control	Creation of a shared entity by several systems that continue to exist independently (e.g., regional water system)	Takeover by existing or newly created entity
Examples: • Sharing equipment • Sharing bulk supply purchases • Mutual aid agreements	Examples: • Contracting operation and management • Outsourcing engineering services • Purchasing water	Examples: • Sharing system management • Sharing leadership • Sharing source water • JPA	Examples: • Acquisition and physical interconnection • Acquisition and satellite mgmt • One system transferring ownership to another to become a larger existing system or a new entity

RCAP

Graphic adapted by RCAP and RCAC from U.S. Environmental Protection Agency resources

Accountability resources: Federal level

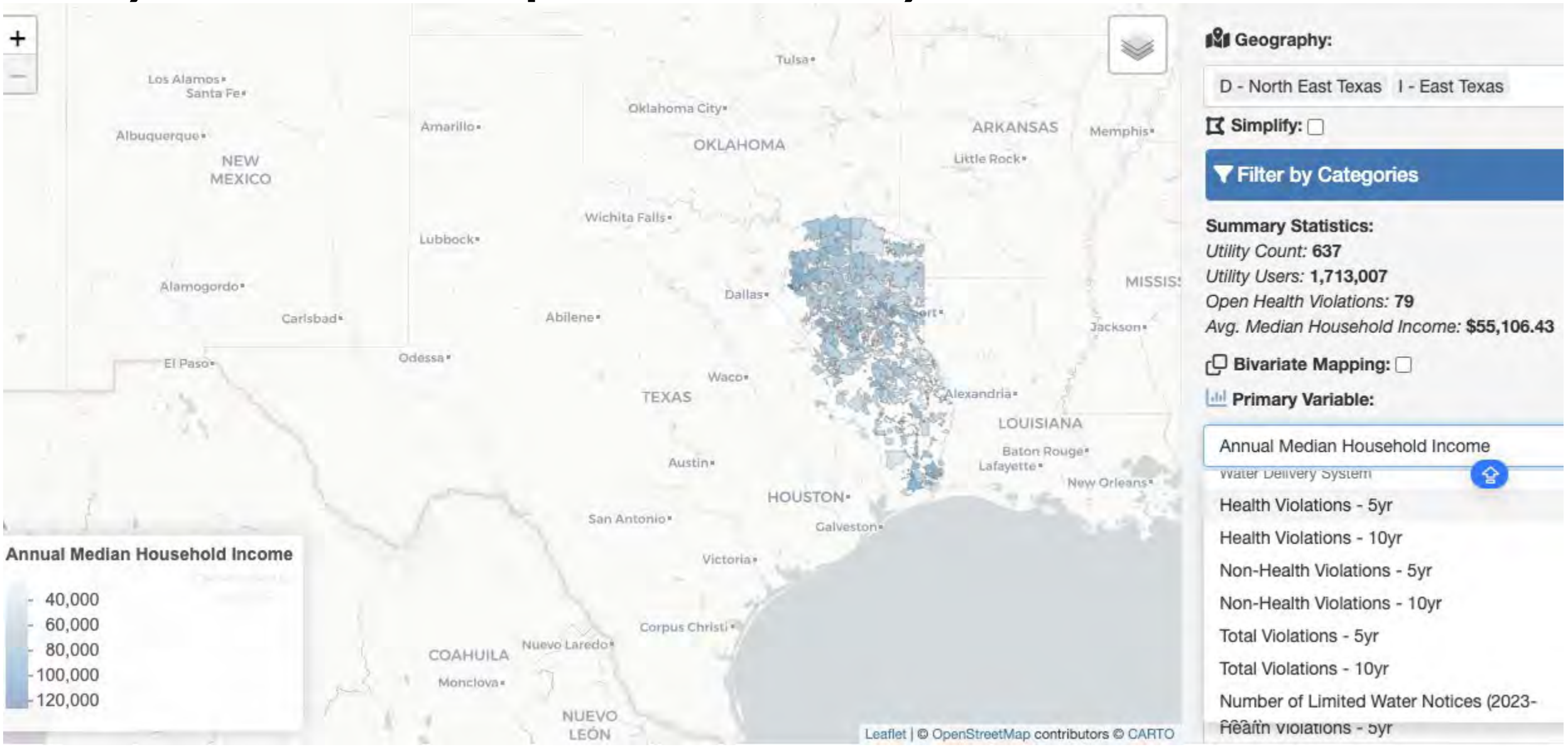
Without the geospatial data, we are just left with a long table of data from SDWIS…

Results are limited to 150,000 rows. Please go back and refine your search.

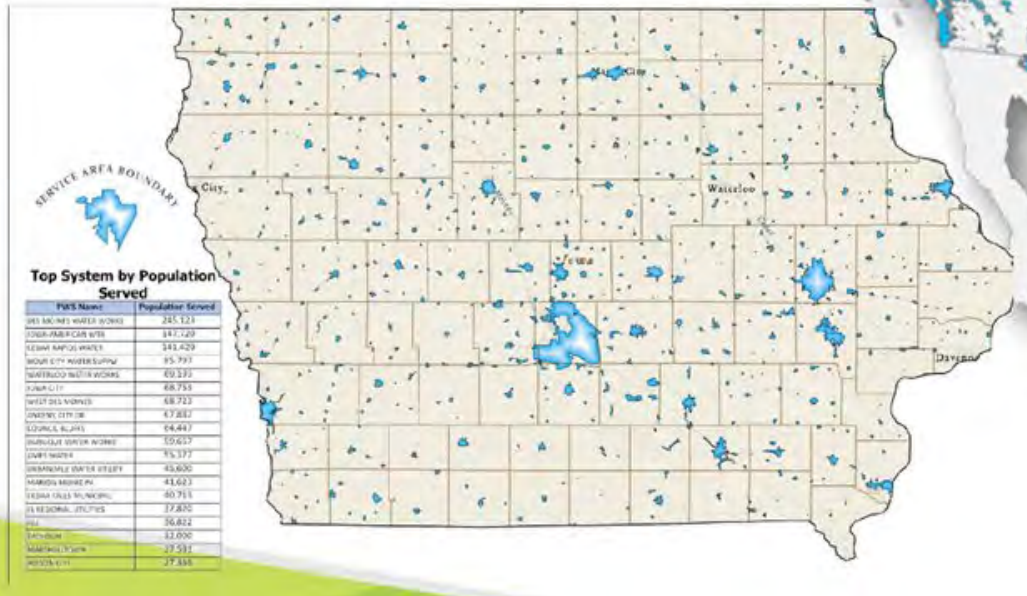
1 - 50 of more than 150,000 >

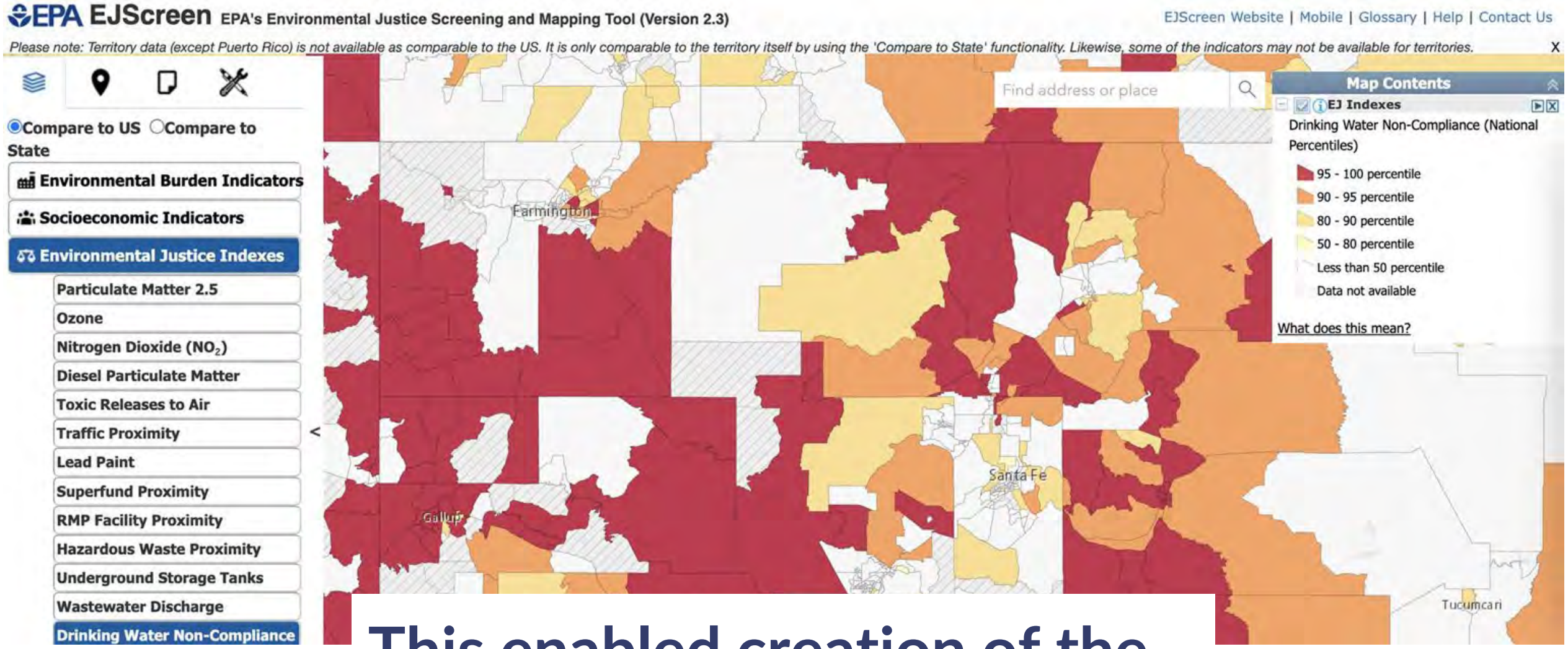
PWS ID	PWS Name	EPA Region	Primacy Agency	Primacy Type	Primary Source	Population Served Count	Rule Name	Violation Type	Is Health Based	Contaminant Name	Compliance Period Begin Date	Compliance Period End Date	Compliance Status
NC0150438	QUALLA MOTEL	Region 4	North Carolina	State	Ground water	40	Revised Total Coliform Rule	Maximum Contaminant Level Violation, E. coli (RTCR)	Y	Revised Total Coliform Rule	01-MAR-2024	31-MAR-2024	Known
MA2282000	STERLING WATER DEPARTMENT	Region 1	Massachusetts	State	Ground water	6,814	Lead and Copper Rule	OCCT/SOWT Treatment Installation/Demonstration	Y	Lead and Copper Rule	17-FEB-2024	-	Open
CO0145150	EUREKA WC	Region 8	Colorado	State	Ground water	498	Stage 1 Disinfectants and Disinfection Byproducts Rule	Treatment Technique No Certif. Operator	Y	Stage 1 Disinfectants and Disinfection Byproducts Rule	01-FEB-2024	-	Open
PA3130879	SMALL WORLD DAY CARE CENTER	Region 3	Pennsylvania	State	Ground water	70	Revised Total Coliform Rule	Treatment Technique, Level 2 Assessment (RTCR)	Y	Revised Total Coliform Rule	30-JAN-2024	-	Open
090400112	SCUA Lower Peridot	Region 9	EPA Region 9	Tribal	Ground water	702	Revised Total Coliform Rule	Treatment Technique, Corrective/Expedited Actions (RTCR)	Y	Revised Total Coliform Rule	27-JAN-2024	-	Open
PA3480324	WHITETAIL GOLF CLUB	Region 3	Pennsylvania	State	Ground water	150	Revised Total Coliform Rule	Treatment Technique, Level 2 Assessment (RTCR)	Y	Revised Total Coliform Rule	22-JAN-2024	-	Open

When we have this geospatial data, we can conduct analyses and develop accountability resources



We now have boundaries for drinking water systems nationwide





This enabled creation of the first drinking water justice metric in EJScreen.

Trilemma for Water Service Providers

Utilities can maintain affordability and spend money on infrastructure but may reduce fiscal stability.

Utilities can maintain affordability and fiscal stability but may reduce investment in needed infrastructure repair and replacement.

Utilities raise rates that reduce affordability to support infrastructure and maintain fiscal stability.

Doyle et al. 2020. JAWWA

Reflections? Comments? Questions?

Denise Schmidt
denise@policyinnovation.org