Smart Management for Small Water Systems

WEBINAR: Regulating Rates that Fund Customer Assistance Programs at Small Water Systems

Thursday, October 5 2017
2:00 – 3:00 PM EST

EFCN environmental finance center network

American Water Works Association

This program is made possible under a cooperative agreement with EPA.

CEU Certificates

If you need a CEU certificate, you will need to confirm the following on the roster today before you leave:

- Is your name spelled correctly?
- Did you provide an email address UNIQUE TO YOU? A unique email address is required to access your certificate on the AWWA website.
- Did you mark the checkbox that you need a certificate?

Within 30 days of the training, you will receive an email with instructions to print your certificate. Emails from AWWA may be blocked or go to your Junk mail. To avoid this issue, add *educationservices@awwa.org* to your email Contacts or check your Junk mail frequently.

AWWA will apply to the water operator state licensing agency for CEU preapproval when applicable. You may be awarded CEUs by your agency. It is your responsibility to confirm with the agency that training meets relevancy criteria established for your license type as some agencies may not apply CEUs to your license if the training topic is not relevant to your position.

AWWA follows the IACET Standard of CEU calculation.
0.1 CEU = 1 Contact Hour or 1 Professional Development Hour

Questions? Please contact *educationservices@awwa.org*

About the Environmental Finance Center Network (EFCN)

The Environmental Finance Center Network (EFCN) is a university-based organization creating innovative solutions to the difficult how-to-pay issues of environmental protection and improvement. The EFCN works with the public and private sectors to promote sustainable environmental solutions while bolstering efforts to manage costs.

The Smart Management for Small Water Systems Program

This program is offered free of charge to all who are interested. The Program Team will conduct activities in every state, territory, and the Navajo Nation. All small drinking water systems are eligible to receive free training and technical assistance.

What We Offer

Individualized technical assistance, workshops, small group support, webinars, eLearning, online tools & resources, blogs

The Small Systems Program Team

- Environmental Finance Center at The University of North Carolina at Chapel Hill
- Environmental Finance Center at Wichita State University
- EFC West
- New England Environmental Finance Center at the University of Southern Maine
- Southwest Environmental Finance Center at the University of New Mexico
- Syracuse University Environmental Finance Center
- Environmental Finance Center at the University of Maryland
- American Water Works Association (AWWA)

UNC Environmental Finance Center

Wichita State University Hugo Wall School of Public Affairs Environmental Finance Center

EFCWest Environmental Finance Center West

New England Environmental Finance Center

Southwest Environmental Finance Center

Environmental Finance Center Syracuse University

University of Maryland Environmental Finance Center

American Water Works Association

Areas of Expertise

- Asset Management
- Energy Management Planning
- Rates and Finance
- Leadership Through Decision-making and Communication
- Managing Drought
- Water Loss Reduction
- Collaborating with Neighboring Communities
- Multi-funding
- Water Conservation
- Management and Finance Tools and Techniques
- Climate Change Resiliency
- Workforce Development

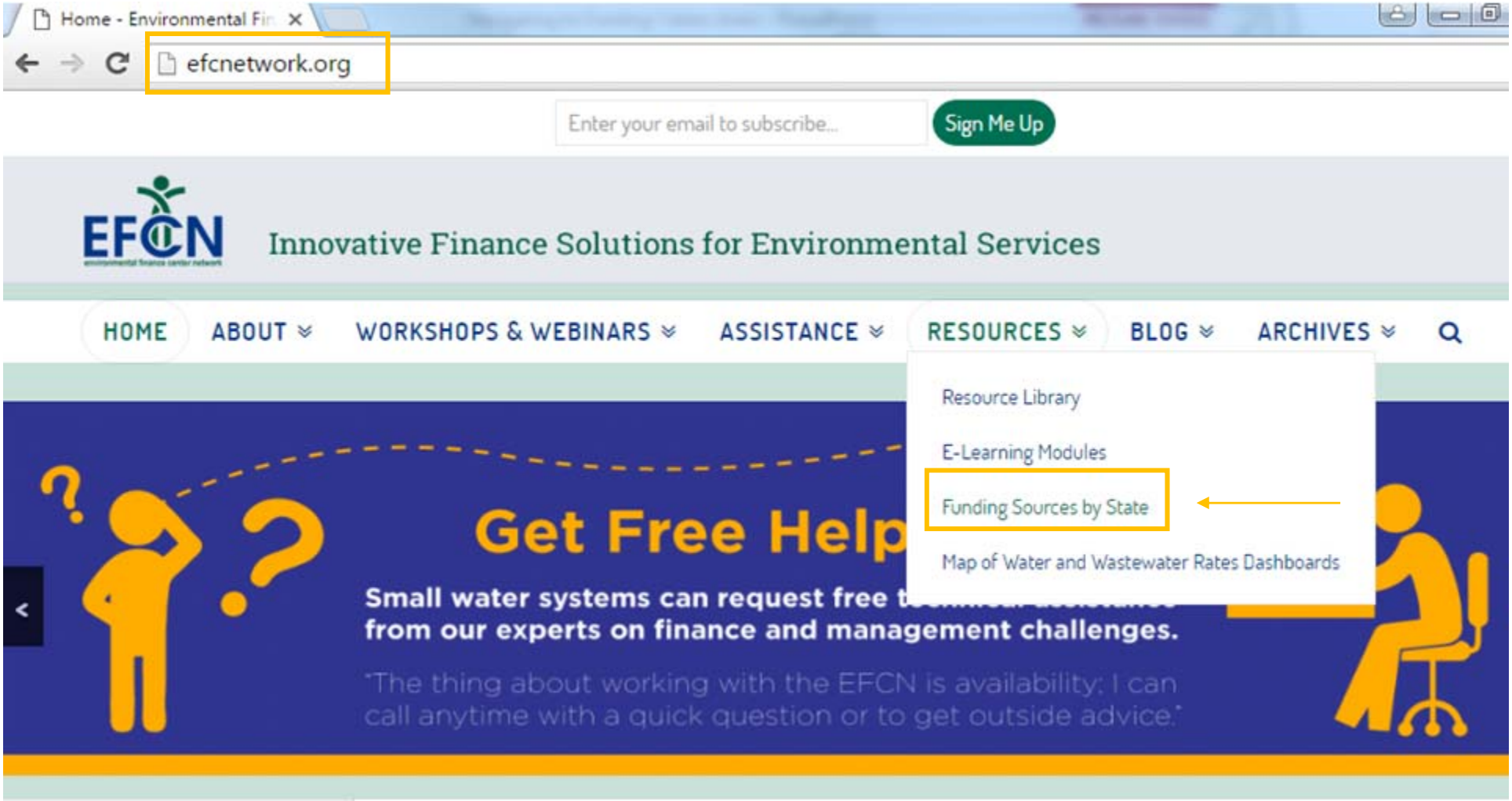
Small Systems Blog

Learn more about water finance and management through our Small Systems Blog! Blog posts feature lessons learned from our training and technical assistance, descriptions of available tools, and small systems “success stories.”

Common Blog Topic Areas

- Asset Management
- Energy Management
- Enhancing Regulatory Compliance
- Fiscal Planning & Rate Setting
- Funding Coordination
- Managerial & Financial Leadership
- Water Loss Reduction
- Water System Collaboration

efcnetwork.org/small_systems_blog/



Navigating to Funding Tables

Step 1: efcnetwork.org
Step 2: Select “Funding Sources by State” under the Resources Tab

Funding Sources by State

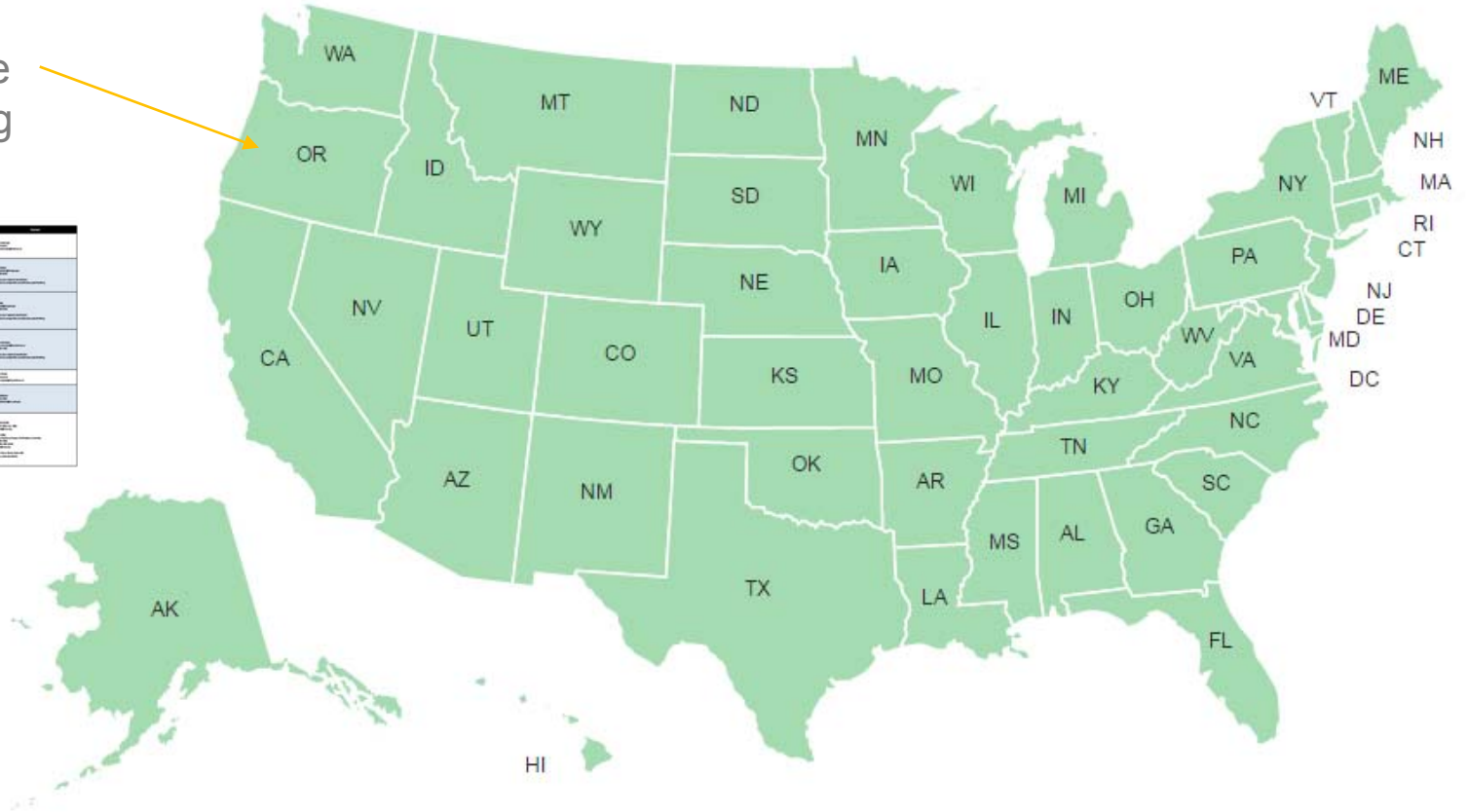
efcnetwork.org/funding-sources-by-state/

Funding Sources by State

Note: Some states may have additional resources listed below the map.

Click on the map below to view funding sources for each state:

Click on an individual state to view funding table.



Upcoming Workshops

October 4, 2017

California | Leadership Through Decision-making and Communication Workshop

Calaveras County Water District Headquarters – Board Room, San Andreas CA

October 4, 2017

Tennessee | Small Water Systems Board Training: The Keys to Effectively Managing, Financing, and Operating Your Utility

Service Center – Large Conference Room, Alcoa TN

October 5, 2017

Oregon | Managing Your Public Water System

Pringle Hall Community Center, Salem Oregon

October 5, 2017 (8:30 am – 4:00 pm ET)

Vermont | Rates and Finance Workshop for Small Water Systems

Rutland Regional Planning Commission – 3rd Floor Conference Room, Rutland VT

October 5, 2017 (5:30 pm – 8:00 pm ET)

Vermont | Water System Management and Finance for Elected Officials

Rutland Regional Planning Commission – 3rd Floor Conference Room, Rutland VT

Upcoming Webinars

October 5, 2017

Webinar | Regulating Rates that Fund Customer Assistance Programs at Small Water Systems

October 11, 2017

Webinar | Ask the Expert: A Unique Opportunity to Ask Your Asset Management Questions or Seek Advice on How to Begin

October 24, 2017

Webinar | Water Audits and Water Loss Control: Gathering and Entering Your Data

Presenter

Stacey Isaac Berahzer

Senior Project Director
Environmental Finance Center
at the University of North
Carolina on Chapel Hill

UNC ENVIRONMENTAL FINANCE CENTER

UNC SCHOOL *of* GOVERNMENT

Dedicated to enhancing the ability of governments and other organizations to provide environmental programs and services in fair, effective, and financially sustainable ways through:

- Applied Research
- Teaching and Outreach
- Program Design and Evaluation

How you pay for it matters

Objectives

- Understand the unique challenges of small drinking water systems
- Understand the customer affordability problems that many water systems face
- Learn ways a utility can help address these affordability problems
- Learn the key role that rate revenues can play in customer affordability assistance

INTRODUCTION

Small water systems meet commissions; Commissions meet small water systems

COMMISSIONS

Who are they?

Commission Names

- Usually called “public utilities commission” or “public service commission”
- Other examples of names:
  - Regulatory Commission of Alaska
  - Arizona Corporation Commission
  - Tennessee Regulatory Authority

Commission Roles

- Typically, an economic regulatory body that governs certain rate setting and billing practices of select utilities

- 6 states have commissions that do NOT regulate any water systems

SMALL WATER SYSTEMS

Who are they?

Small System Staff

Staff at small water systems usually wear many hats since they serve such small communities

Small Drinking Water System Staff from Utah Participate in a Rates Workshop Exercise on 09/21/17
Source: Stacey Isaac Berahzer

In the United States, there are

147,413

“public” drinking water systems

Source: EPA SDWIS Database as of July 1, 2016

Clarifications

- “Public” water systems are publicly regulated regardless of whether they are **owned** by a public or private entity
- In general, Commissions tend to regulate privately owned water systems, but there are exceptions

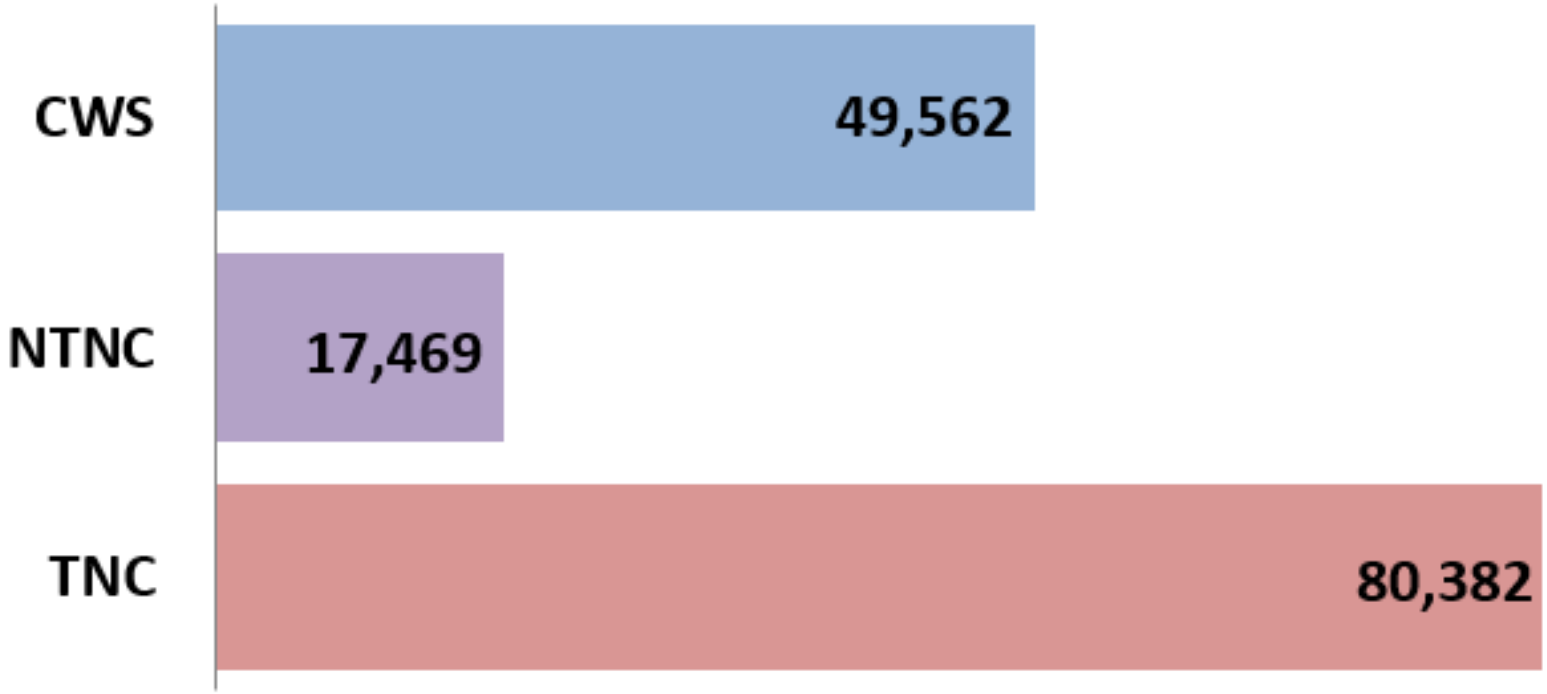
EPA Divides Public Water Systems Into Three Types

- Community Water Systems (**CWS**)
- Non-Transient, Non-Community Water Systems (**NTNC**)
- Transient, Non-Community Water Systems (**TNC**)

Which Type They Are Depends on Who They Serve

- **CWS** serve the same 25+ people/15+ connections regularly where they live
- **NTNC** serve the same 25+ people regularly outside of the home
- **TNC** serve 25+ people regularly but not the same people

Most Water Systems are Transient Non-Community Systems



Source: EPA SDWIS Database as of July 1, 2016

EPA Also Divides Systems into Five Categories Based on Number People Served

Small Systems

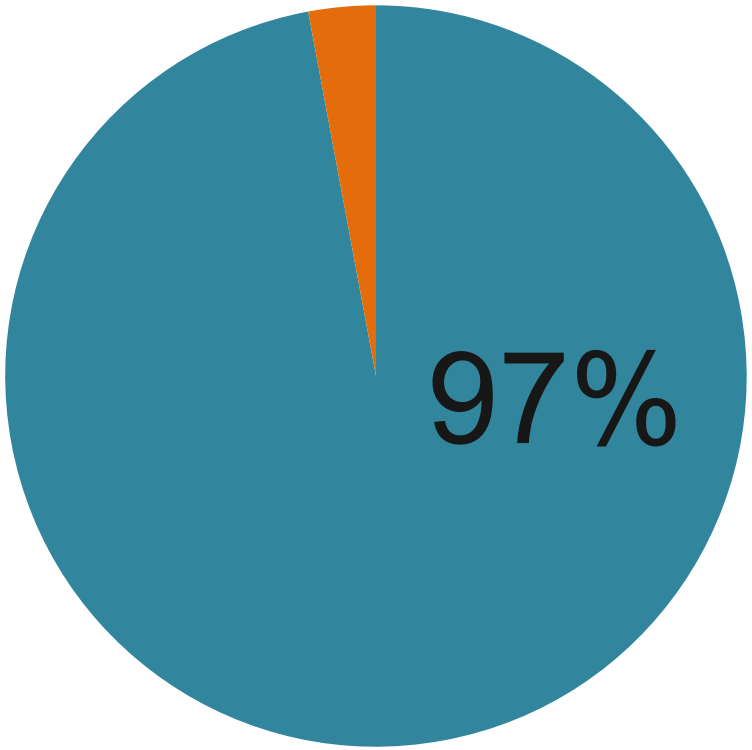
- Very Small: Up to 500
- Small: 501 to 3,300
- Medium: 3,300 to 10,000

Large Systems

- Large: 10,001 to 100,000
- Very Large: More than 100,000

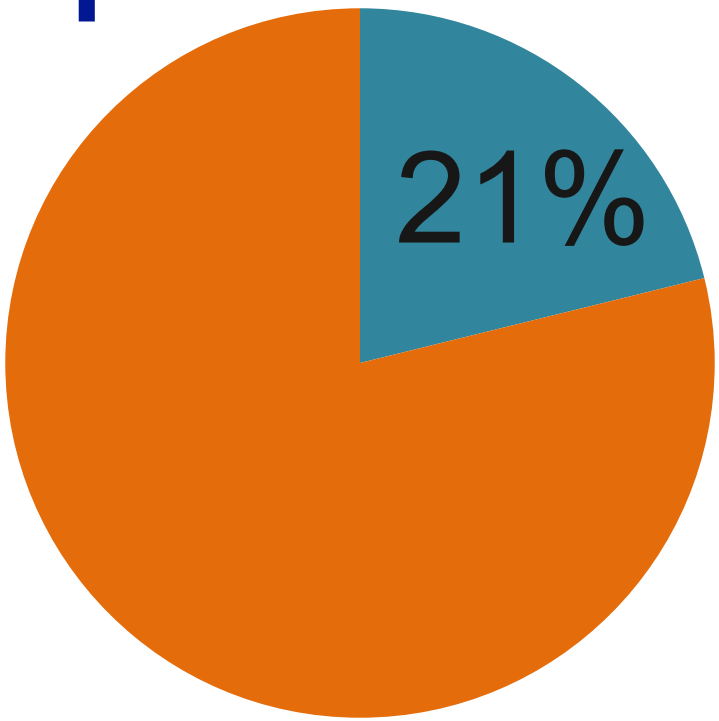
Most Water Systems are Small

They serve 10,000 or fewer customers



Source: EPA SDWIS Database as of July 1, 2016

Collectively, Though, Large Systems Serve Far More Total People



Source: EPA SDWIS Database as of July 1, 2016

Almost all Non-Community Systems are Small

- More than 99% of **NTNC** and **TNC** serve 10,000 or fewer people

- At least 85% serve 500 or fewer people

Source: EPA SDWIS Database as of July 1, 2016

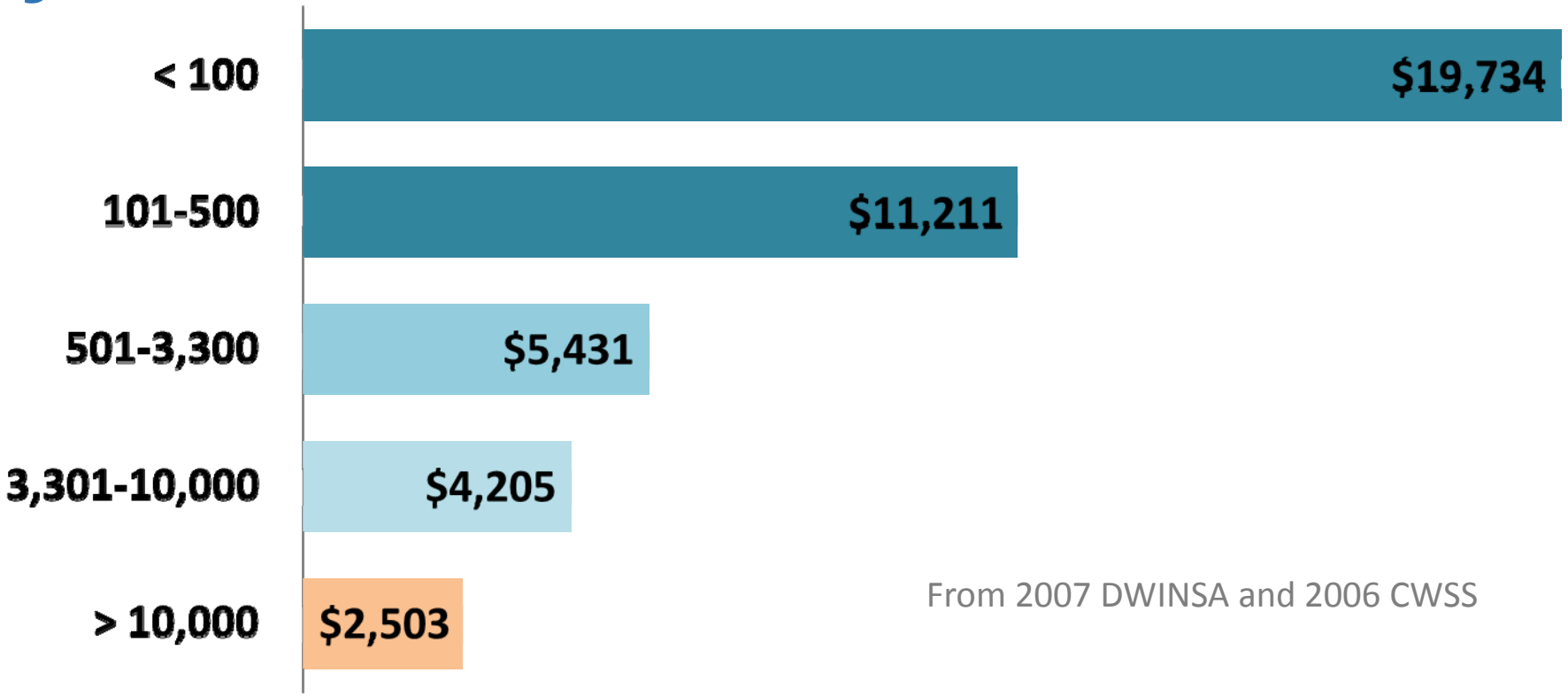
Most Community Systems are also Small

Source: EPA SDWIS Database as of July 1, 2016

Why does system size matter?

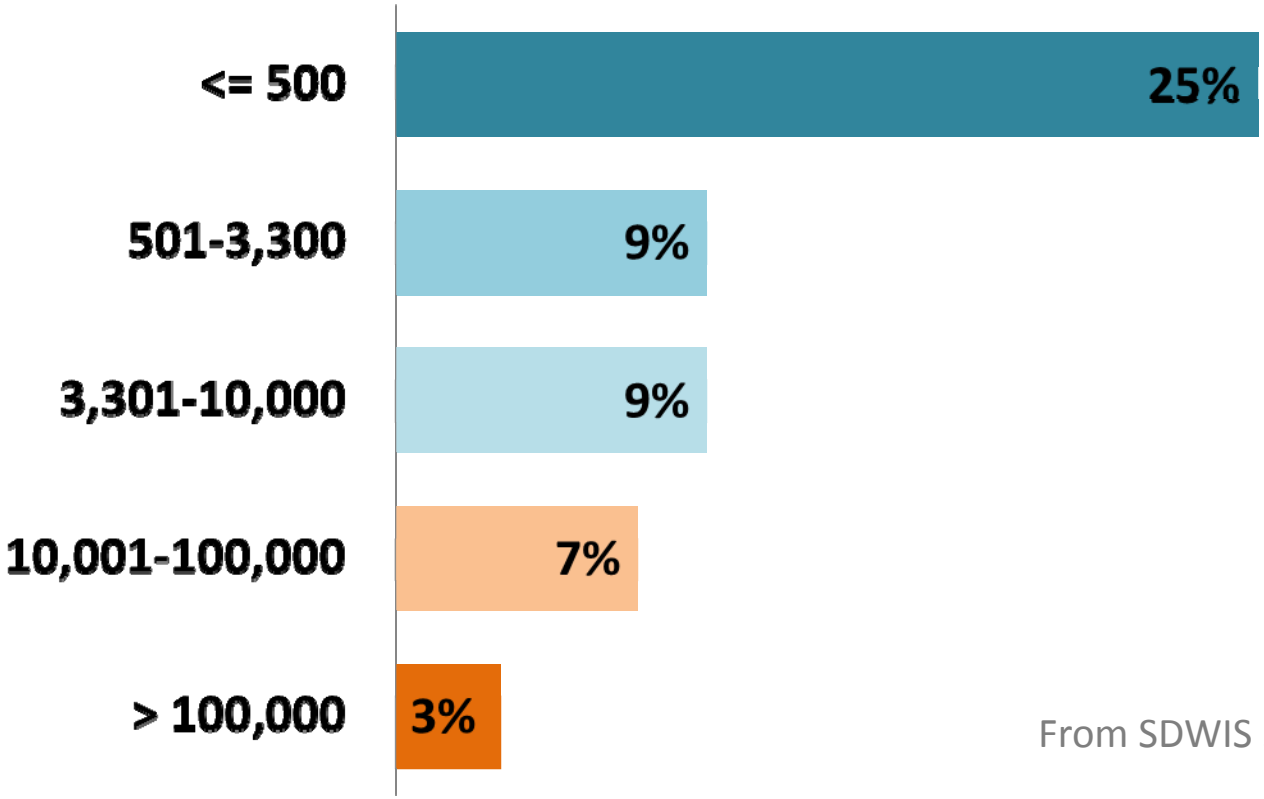
What's the issue with small systems?

The Infrastructure Needs Per Residential Connection are Much Greater for Small Systems



From 2007 DWINSA and 2006 CWSS

And Small Systems Have Far Higher Numbers of Annual Health Violations



From SDWIS 2011 Q3 Data

Other Challenges for Small Systems

- Increase in mergers
- Asset-intensive systems
- Changing regulations that impact bottom line
- Backlog in capital investments
- Interruptions in supplies that hurt revenues
- Loss of major customers
- Sagging revenues
- A service or a commodity?

Affordability

Affordability Parameters

- **Focus of today's webinar**: "Affordability" from the customer level, **not** "financial capacity" of the utility

- Example: "*the inability of the poorest segment of the customer base to fund its proportionate share of the total costs of the provision of utility services*" (AWWA, M1)

Business Case for Creating Affordability Programs or "Customer Assistance Programs" (CAPs)

- When customers have trouble paying utility bills, costs to the utility include:
  - increased arrearages
  - late payments
  - disconnection notices, and
  - service terminations
- Buyers of utility bonds also get nervous

IS there an affordability problem? Are Your Rates Too High?

- Probably not (at least overall)
- But, there may be a sector of your customers for which the rates are unaffordable
- Maybe this sector of your customers is growing?

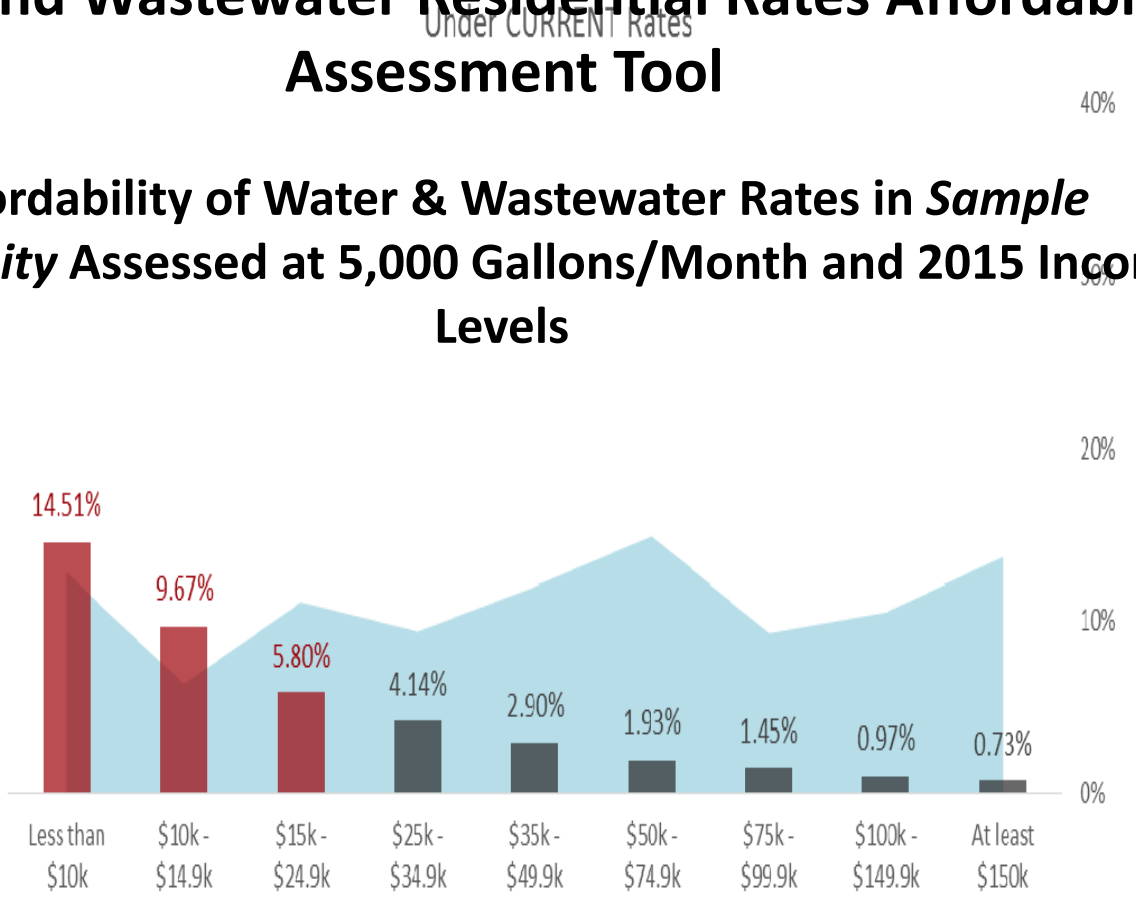
Water and Wastewater Residential Rates Affordability Assessment Tool

On the EFC Website
Go to
http://efc.sog.unc.edu
and search for
"Affordability
Assessment Tool"

See previous webinar recording:
http://efcnetwork.org/events/webinar-rates-high-looking-affordability-water-rates/

Affordability

Water and Wastewater Residential Rates Affordability Assessment Tool



Affordability of Water & Wastewater Rates in *Sample Community* Assessed at 5,000 Gallons/Month and 2015 Income Levels

Affordability

The table below shows key socioeconomic indicators for *Atlanta*, with the state and national averages available for comparison. Values in red indicate that the indicator is "most stressed," as compared to both the state and national average.

Example: Affordability for Low-Income Customers in *Atlanta*

	Atlanta City, Georgia in 2015	Georgia in 2014	United States in 2014
Median Household Income	$47,527	$49,342	$53,482
% Unemployment	7.5%	6.7%	5.8%
% Not in the labor force	35.0%	36.7%	36.1%
% of all people with income below poverty	24.6%	18.5%	15.6%
% with Social Security income	22.4%	27.0%	29.3%
% with Supplemental Security income	5.9%	5.2%	5.3%
% with cash public assistance income	2.6%	1.9%	2.8%
% with Food Stamp/SNAP benefits	17.5%	15.2%	13.0%

To access the tool that generated this chart and table see http://www.efc.sog.unc.edu/reslib/item/water-wastewater-residential-rates-affordability-assessment-tool

DESIGNING *CAPS* TO ADDRESS AFFORDABILITY CONCERNS

Some Elements of Designing a CAP

- Deciding **who** gets assistance
- Deciding what **types** of assistance to provide
- Planning for program outreach and monitoring
- Determining how much the CAP will cost
- **Devising a plan to fund the CAP**

Who Gets Assistance? - Common Practices in Eligibility Verification

- Partnering with another organization that focuses on low-income
- Proof of eligibility in related programs, such as:
  - LIHEAP (Low Income Home Energy Assistance Program)
  - AFDC (Aid to Families with Dependent Children)
  - SSI (Supplemental Social Security Income)
  - Medicaid
  - Food stamps
  - Local property tax assistance; and
  - Other utilities (electric, natural gas, telephone, offer discount programs based on income)

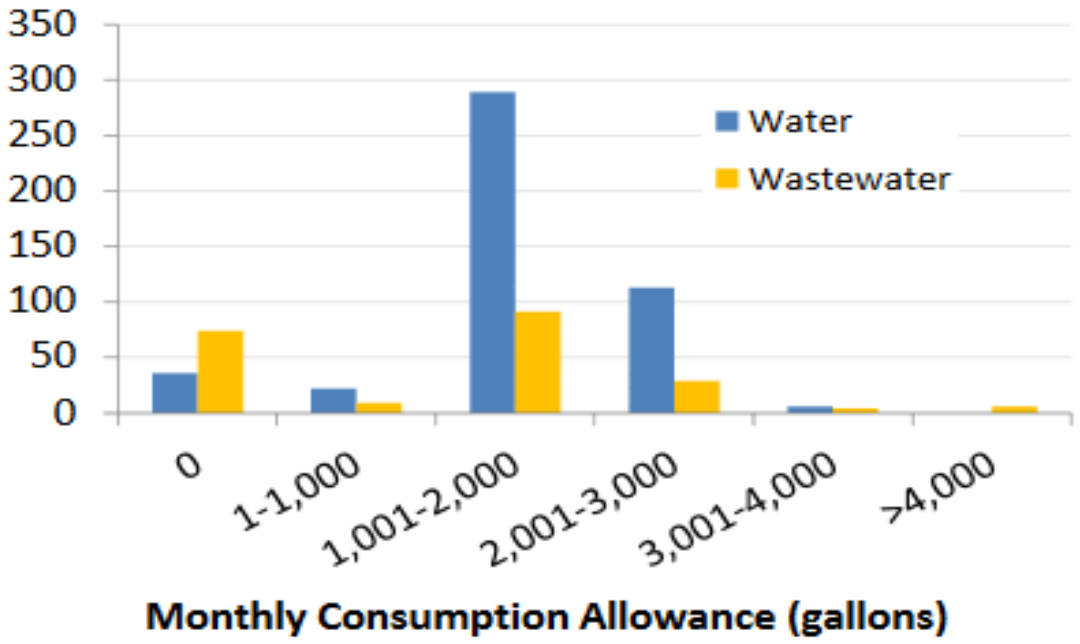
Everyone Gets Assistance? - Concept of Lifeline Rates

- *"Providing a minimal amount of water, at a reduced cost to all customers, regardless of income level or ability to pay"*
  - Source: AWWA Manual M1
- Often some consumption is included in the base charge

Example

93% of water and 67% of sewer rate structures include a minimum consumption amount with the base charge

Figure 2: Consumption included with Base Charge for Residential Customers Among 465 Water and 212 Wastewater Rate Structures



Source: Water and Sewer Rates and Rate Structures in Alabama June 2016, by ADEM/EFC

Funding Sources for Affordability Programs

- **Revenue generated directly from customer rates (not an option in some states)** https://efc.sog.unc.edu/project/navigating-legal-pathways-rate-funded-customer-assistance-programs
- Voluntary contributions (e.g. bill round-up)
- Rental income from cell phone and internet providers that rent use of the water utility's towers/tanks
- Service line protection programs

Funding Customer Assistance Programs with Rate Revenue

Funders/Steering Committee

Association of Metropolitan Water Agencies

American Water Works Association

NACWA — A Clear Commitment to America's Waters

NAWC — National Association of Water Companies

Water Research Foundation

Water Environment & Reuse Foundation — WE&RF

Water Environment Federation — the water quality people®

Research Team

UNC Environmental Finance Center

Corona Environmental Consulting

Abt Associates

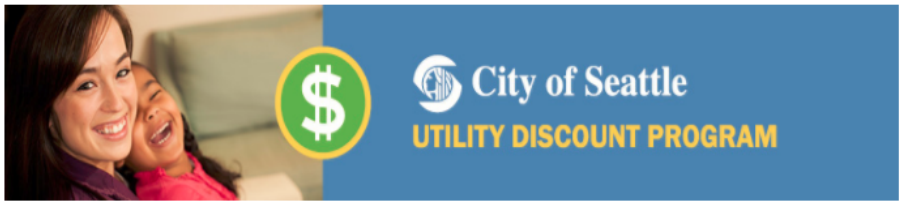
Independent Legal Experts

Scott Rubin, Advisor

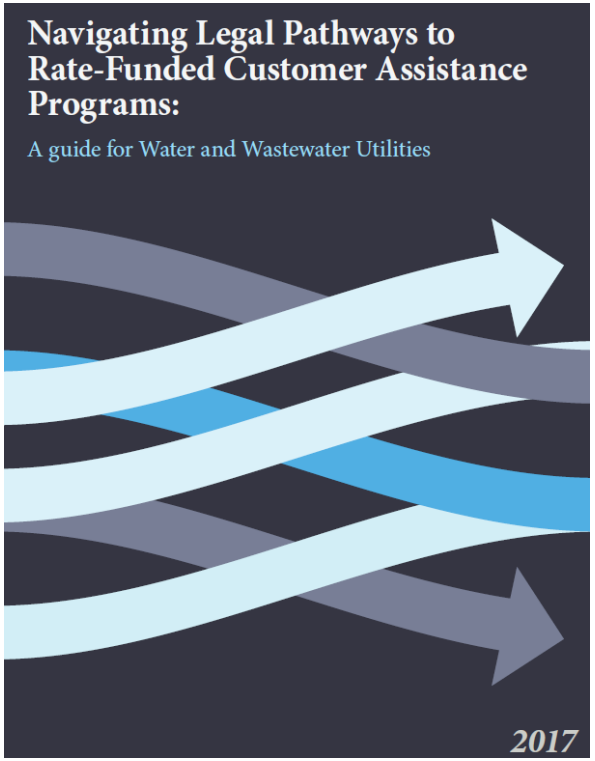
Roger Colton, Advisor

Research Question: Can a Utility Use its Primary Revenue Source (Rate Revenue) to Fund a Customer Assistance Program

- 52 state/territory legal snapshots
- Nine case studies of well funded customer assistance programs
- Analysis of other sector approaches
- Analysis of international approaches



June 2017 Publication



Alabama

Commission-regulated utilities
Noncommission-regulated utilities

Water and wastewater utilities in Alabama fall under several rate setting regulatory systems.

Commission-Regulated Utilities

The Alabama Public Service Commission (APSC) regulates private water and wastewater companies in Alabama.[21] Under Ala. Code § 37-1-34, the APSC does not have the authority to regulate government-owned utilities. Furthermore, per Ala. Code § 37-4-2.1, utilities serving less than 1,000 customers and purchasing water from a noncommission-regulated utility[22] can choose to be exempt from APSC regulation and instead fall under that utility's municipal authority.

Ala. Code § 37-1-81 states that commission-regulated utilities need to file rate schedules with the APSC before changing rates. In addition, Ala. Code § 37-1-80 states that commission-regulated utilities must charge "reasonable and just" rates. Alabama follows the "rate base theory" when determining what is just and reasonable, with the rate base (to determine the fair rate of return) being "the valuation placed on the utility property."[23] Ala. Code § 37-1-124 considers rates set by the APSC to be *prima facie* just and reasonable.[24] Furthermore, when the APSC finds rates to be unjust and unreasonable, Ala. Code § 37-1-97 gives it the power to adjust them to be just and reasonable.

Thus, commission-regulated utilities would likely need specific approval, in the form of an APSC order, to charge rates to be used to fund a low-income customer assistance program (CAP).

Noncommission-Regulated Utilities

Municipalities, including cities and towns, have the right to operate and maintain rates for water utilities.[25] They are not subject to APSC regulation and thus can set their own water and wastewater rates.[26] For wastewater rates, under Ala. Code § 11-50-121, "all such charges shall be uniform for the same type, class, and amount of use or service by or from the sewer system." This code also lists factors that can be used to set rates, but does not mention socio-economic factors.[27]

State Population (2016): 4,863,300

Median Annual Household Income (2015): $43,623

Poverty Rate (2015): 18.8%

Typical Annual Household Water and Wastewater Expenditures (2016): $775

Alabama has 516 community water systems (CWS), of which 17 are privately-owned and 406 serve populations of 10,000 or fewer people.
Alabama has 291 publicly owned treatment works facilities (POTWs), of which 204 treat 1 MGD or less.
58,937 people are served by privately-owned CWS;
5,548,854 are served by government-owned CWS; and
2,420,993 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs: $11.0 billion

Sources: U.S. Census Bureau 2016 Population Estimate & 2011-2015 American Community Survey 5-Year Estimates, 2016 EFC Rates Survey, U.S. Environmental Protection Agency's 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey & 2012 Clean Watersheds Needs Survey. See Appendix I for more details.

Based on the limits laid out above, noncommissio-regulated water utilities appear to have very broad rate-setting authority that could be used to implement low-income CAPs funded by rate revenues. On the other hand, because of the aforementioned specific statutory limitation, wastewater utilities might face legal challenges if using rate revenues to fund low-income CAPs, but such programs would face fewer obstacles than programs using income-indexed rates or discounts.

https://efc.sog.unc.edu/opportunities-in-affordability-assistance

Findings

Confusing and Ambiguous Legal Framework

- Utilities must navigate a complex, confusing and ambiguous legal framework that varies significantly from state to state
- In many cases, **different types of utilities** are subject to **different rules** that result in some utilities within a given state being able to design programs in a way that is prohibited for other types of utilities. e.g. in California:
  - Government owned utilities = CAPs curbed by restrictive statutory and constitutional provisions
  - Investor owned utilities = CAPs encouraged

Navigating State Frameworks: Confusing, ambiguous and subject to interpretation….

Can the Utility Use its Primary Revenue Source to Fund a CAP?

- Silence, ambiguous or restrictive language leave many utilities unsure if they can use their rate revenues
- Without the use of rate revenues, most of the CAPs across the country are small and can’t address the total customer need

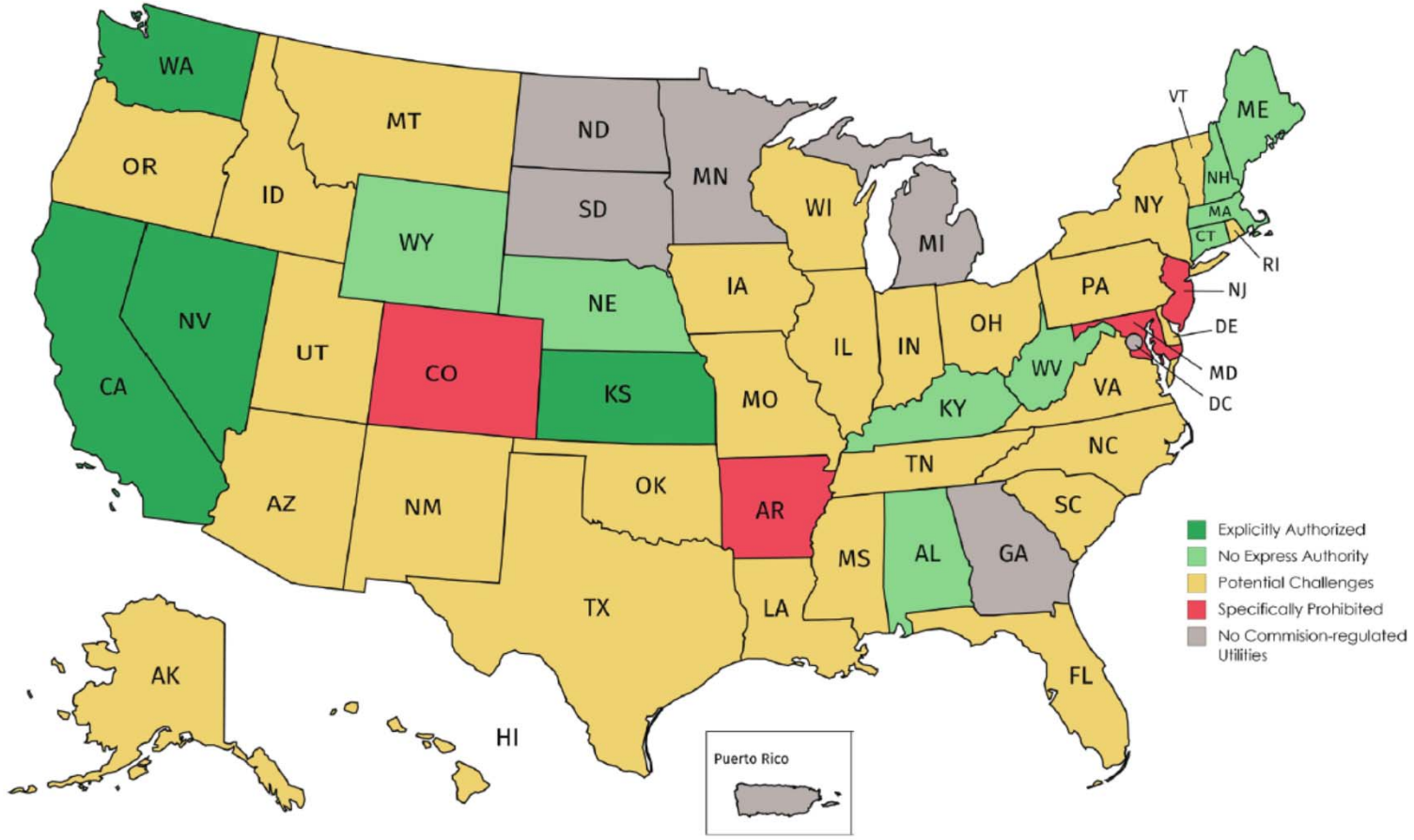
Categorizing States by Level of Authorization for Affordability Programs Using Rate Revenue

	**Explicitly Authorized**
	**No Express Authority**
	Potential for Challenges
	**Specifically Prohibited**

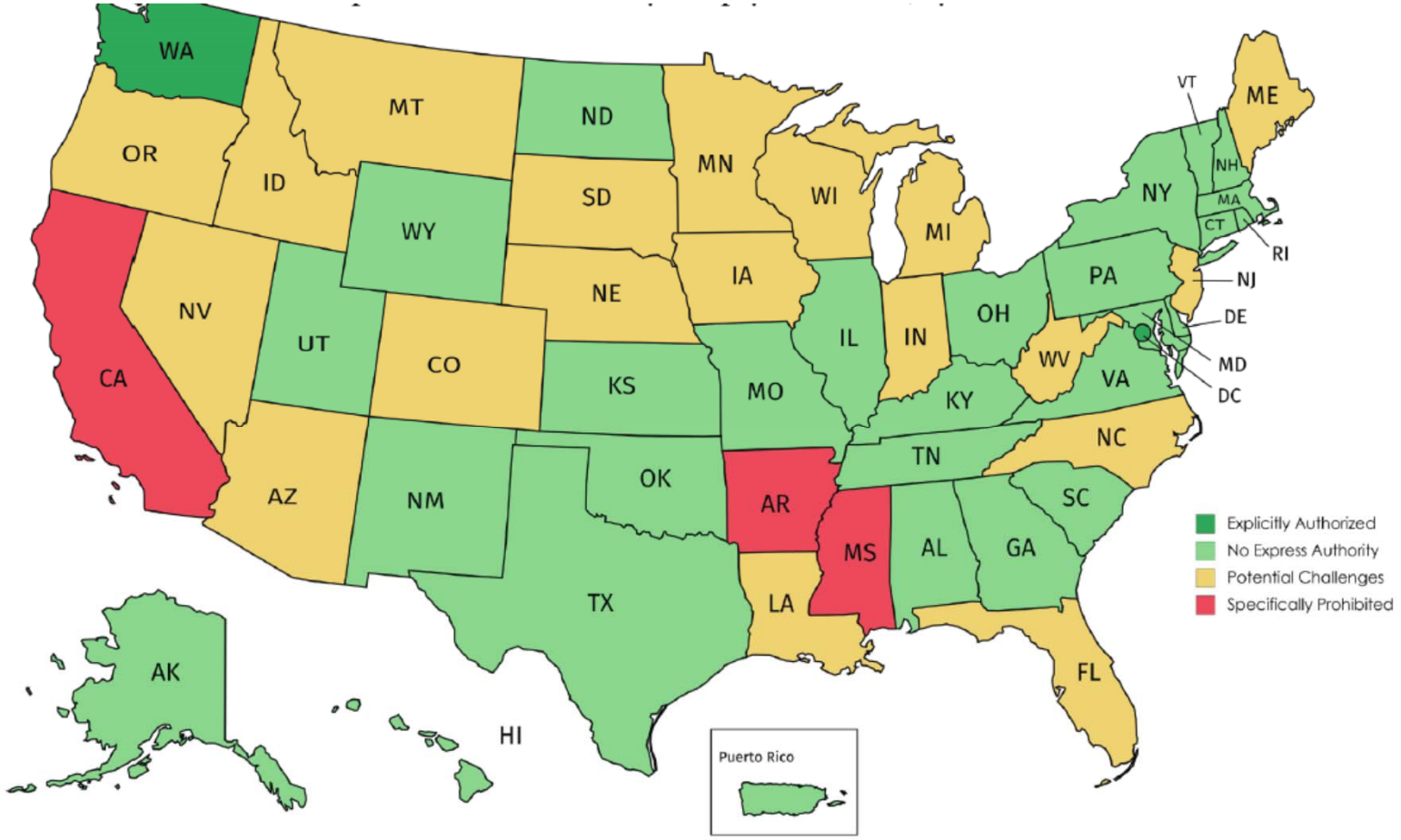
Authorization to Create Affordability Programs Using Rate Revenues

		Commission Regulated Utilities	Non Commission Regulated Utilities
	**Explicitly Authorized**	4	2
	**No express authority**, but nothing in the statutes or case law seems to limit an entity from implementing a program	9	28
	Something in the statutes or case law, such as ambiguous language, limiting terminology, cost of service require-ments, etc., suggests the **potential for challenges**	28	19
	**Specifically prohibited**	4	3

Commission Regulated Utilities: Ability to Implement CAPS Funded by Ratepayer Revenues by State



Non Commission Regulated Utilities: Ability to Implement CAPS Funded by Ratepayer Revenues by State



Example Snapshot: Wisconsin

Note: This is an excerpt from a larger report, "Navigating Legal Pathways to Rate-Funded Customer Assistance Programs: A Guide for Water and Wastewater Utilities." To access the whole report, go to https://efc.sog.unc.edu/pathways-to-rate-funded-customer-assistance.

Wisconsin

Water and wastewater utilities in Wisconsin fall under several rate setting regulatory systems. However, Wisconsin is unique in that it is the only state in which all municipal-owned water utilities are regulated by the state utility commission. Unlike in most states, where government-owned utilities are treated differently than private water companies, in Wisconsin the main regulatory differences lie between water utilities and wastewater utilities.

Commission-Regulated Utilities

Under Wis. Stat. § 196.02, the Public Service Commission of Wisconsin (PSCW) regulates the water rates of any public utility providing water to the public for domestic, commercial, or industrial purposes, including municipal-owned water utilities.[xx] Regional water authorities, cooperatives, water trusts, and private wells are not regulated by the PSCW. Under Wis. Stat. § 66.0815(2)(a), the PSCW has "jurisdiction over the

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	5,778,708
Median Annual Household Income (2015):	$53,357
Poverty Rate (2015):	13.0%
Typical Annual Household Water and Wastewater Expenditures (2015):	$675

Wisconsin has 1,057 community water systems (CWS), of which 455 are privately owned and 979 serve populations of 10,000 or fewer people.

Wisconsin has 582 publicly owned treatment works facilities (POTWs), of which 505 treat 1 MGD or less.

107,469 people are served by privately owned CWS; 3,973,370 are served by government-owned CWS; and 4,349,081 are served by POTWs.

As an example…Wisconsin

- Wisconsin is unique, because all municipal-owned water utilities are regulated by the state utility commission and the main regulatory differences in the state lie between water utilities and wastewater utilities.

- Rates must be **“reasonable and just”**
- No charging more or less compensation for any service rendered than charged or received for a like service
- Customers prohibited from knowingly soliciting or receiving “any rebate, concession, or discrimination” from regulated utilities.
- Municipal public utility rates must be “uniform for like service in all parts of the municipality.”

- Wastewater utility regulation is primarily a “voluntary decision on the part of the municipality.”

Wisconsin Case Law

- In 2002, in *City of Madison v. Pub. Serv. Comm'n of Wisconsin*, the court upheld the PSCW's denial of the city's proposed rate increase, which would have been used to subsidize the cost of replacing the remaining customer-owned lead laterals in the city. Despite the city's emphasis on the overall benefits to all city residents that could be had by replacement of the lead laterals, specifically, avoidance of fines of up to $25,000 per day for noncompliance with EPA regulations, as well as prevention of risks to community waters if the alternative chemical method were to be used, the PSCW instead relied on the fact that the "**proposed rate increase would be used to benefit a select group of customers by providing a subsidy for the replacement of the privately owned lead laterals, which those customers are responsible for maintaining and repairing**."

When State Law is Ambiguous: Options for Implementing CAPs Successfully

- **Option 1**. At the state level, introduce statutory language that addresses affordability programs in clear, unambiguous terms
- **Option 2**. Develop an argument for why a CAP conforms to existing statues and is not affected by perceived limitations
- **Option 3**. Develop an alternative program that does not rely on direct customer rate revenue to fund the assistance to low-income individuals

Polling Question 4

Would you like to subscribe to the Environmental Finance Center blog? *(choose one)*

- Yes
- No

Polling Question 5 and Evaluation Survey Link

Are you interested in receiving in-depth technical assistance for your small water system? *(choose one)*

- Yes
- No
- Would Like More Information About This

Other EFC Resources on Affordability

- Blog:
  - **http://efc.web.unc.edu/tag/water-affordability/**
  - 11 posts, and counting, on this topic
- Compilation of Affordability Resources: http://www.efc.sog.unc.edu/water-affordability-tools, examples:
  - Tool - Water Utility Customer Assistance Program Cost Estimation Tool
  - Water Research Foundation report - **Defining a Resilient Business Model for Water Utilities** – **Chapter 4**
- Rates dashboards – affordability dial

QUESTIONS

Thank You!

And please let us know if you have any questions.

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