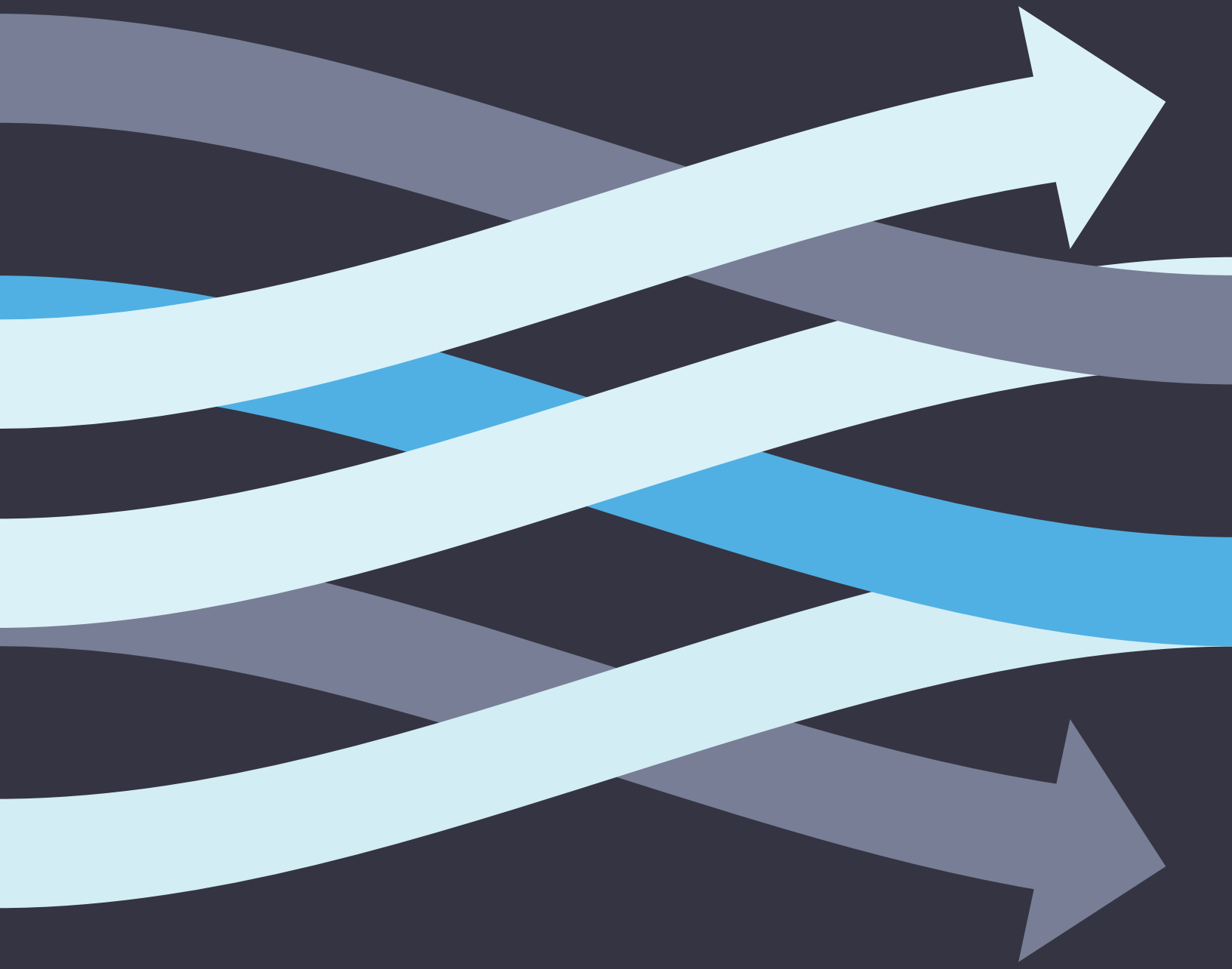
Navigating Legal Pathways to Rate-Funded Customer Assistance Programs:

A Guide for Water and Wastewater Utilities



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This report was authored by:

UNC ENVIRONMENTAL FINANCE CENTER
Part of the UNC School of Government

The research team for this report included:

Environmental Finance Center at the University of North Carolina at Chapel Hill

Stacey Isaac Berahzer, Principal Investigator and Project Manager
Jeff Hughes, Principal Investigator and Senior Advisor
Erin Riggs, Legal Analyst
Michael Burgess, Legal Intern
Kyle Leopard, Legal Intern
Andrea Kopaskie, Data Analyst
Sarah Keefe, Independent Editor
Andrea Sospenzo, Editorial Assistant
Daniel Irvin, Data Analyst
Lexi Herndon, Publisher
Elizabeth Harvell, Publisher
Kara Millonzi, Legal Expert Advisor

Corona Environmental Consulting (formerly with Abt Associates)

Janet Clements, Senior Economist
Robert Raucher, Senior Advisor

CORONA ENVIRONMENTAL CONSULTING

Abt Associates

Lorine Giangola
Mike Duckworth

Independent Legal Experts

Scott Rubin, Advisor
Roger Colton, Advisor

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Jeanette Behr, Research Manager, J.D.,League of Minnesota Cities
Bob Bergman, Colorado Public Utilities Commission
Brad Blake, Program Coordinator, Portland Water Bureau
Edward Buchan, Environmental Coordinator, City of Raleigh Public Utilities
Jordan Bunker, Las Vegas Valley Water District
Jim Cagle, Vice President, Utility Rates and Regulatory Affairs, SUEZ Water Management and Services Inc.
Adam Carpenter, Manager, Energy and Environmental Policy, American Water Works Association
Linda A. Clark, Public Affairs Officer, Detroit Water and Sewerage Department
Joe Crea, Manager, Raftelis Financial Consultants, Inc.
Todd Cristiano, Manager of Rates, Denver Water
Jon Davis, Vice President, Raftelis Financial Consultants, Inc.
Lisa Davis, Director, Customer Relations, Johnson County, Kansas
Denise Venuti Free, Director of Communications and External Affairs, Eastern Division, North American Water
Nathan Gardner-Andrews, Chief Advocacy Officer, National Association of Clean Water Agencies
Annette Garofalo, Assistant Staff Counsel, Maryland Public Service Commission
Curt Gassert, Director of Water and Wastewater, Indiana Utility Regulatory Commission
Marc Goncher, Former Chief Counsel, City of Atlanta Law Department
Michael Grange, Division of Drinking Water, State of Utah Public Service Commission
George Hawkins, CEO and General Manager, D.C. Water and Sewer Authority
Dawn Kelliher Guthrie, Staff Attorney, Arkansas Public Service Commission
Charles Kolberg, General Counsel, Albuquerque Water Utility Authority
Adam Krantz, Chief Executive Officer, National Association of Clean Water Agencies
Andy Kricun, Executive Director and Chief Engineer, Camden County Municipal Utilities Authority
Melissa La Buda, Deputy Commissioner Finance, Philadelphia Water Department
Maisha Land, Director, Care and Conserve Program, City of Atlanta
Bryan Mantz, Supervising Consultant, Public Resources Management Group, Inc.
Michael J. Matichich, Global Technology Lead, Financial Service at CH2M HILL
Tracy Mehan III, Executive Director of Government Affairs, American Water Works Association
Hilary Meltzer, Deputy Chief, Environmental Law Division, New York City Law Department
Maria Moran, Director, Division of Water, New Jersey Board of Public Utilities
Kristy Nieto, Assistant Administrator, Public Service Commission of Wisconsin
Chris Petrie, General Counsel, Wyoming Public Service Commission
Gregory Pierce, Senior Researcher and Adjunct Assistant Professor, University of California, Los Angeles
Karen Ray, Assistant Public Utilities Director, City of Raleigh Public Utilities
Kristin Rehg, Water Professional and Environmental Engineer, Missouri American Water
Susan Richardson, Counsel, Kilpatrick Townsend, Environmental Practice Group
Eric Rothstein, Principal, Galardi Rothstein Group
Tracey Rowland, Program Manager, Low Income Customer Programs, Seattle Public Utilities
Robert Ryall, Vice Chair, Finance and Rates Committee, Florida Section of American Water Works Association

Mitchell Tannenbaum, Maine Public Utilities Commission
Roger Tarbutton, Deputy General Counsel, Johnson County Kansas
Jim Theiler, Assistant Director, Environmental Services, City of Omaha
Steve Via, Director of Federal Relations, American Water Works Association
Natalie Wales, Regulatory Attorney, California Water Service Company
Kenneth Welch, Administrative Analyst, Division of Water, Board of Public Utilities

Executive Summary

In their efforts to design and implement programs that make it easier for low-income customers to pay for water and wastewater services, utilities must navigate a complex, confusing, and often ambiguous legal framework that varies considerably from state to state. For one thing, many states impose different rules and regulations on different types of utilities—water versus wastewater, government-owned versus private ownership—such that some utilities are able to design programs in a way that other types of utilities are not. Government-owned utilities in California, for example, are subject to a series of restrictive statutory and constitutional provisions that make it difficult for them to establish comprehensive customer assistance programs (or CAPs), whereas state regulators not only allow, but encourage, private utilities to implement them.

The most important limitation placed on the design and establishment of CAPs relates to how they may be funded. Ambiguous and restrictive statutory language has created the perception in many states that utilities are not allowed to tap their primary revenue source (customer rate revenues) to fund these programs, leaving utilities to have to find and develop other sources of funding. As a result, the vast majority of utility CAPs around the country tend to be rather small with limited ability to meet the needs of their at-risk, low-income customers.

The Environmental Finance Center (EFC) at the University of North Carolina at Chapel Hill and a team of national legal and finance specialists in the area of water resources were asked by seven national water-related associations to produce a resource guide to help steer their members through this confusing regulatory landscape. An objective of the guide was to include a potential roadmap for utilities interested in establishing more ambitious CAPs. CAPs that are funded in the same way as other utility programs—through customer rates.

This document is the result of those efforts. It presents detailed summaries of regulatory policy on the design and funding of CAPs in each of the 50 states, the District of Columbia, and Puerto Rico. As a means of highlighting both the opportunities and barriers to be found within this landscape, the research team identified a set of utility CAPs that demonstrate what can be done under a supportive regulatory environment or when a utility is determined to adapt to the limits of its existing regulatory framework but also create a robust, well-funded, high-impact CAP. Finally, the research team identified approaches used by other essential service utilities in the United States (energy, telecommunications) as well as by water utilities in other countries to implement more robust CAPs.

Several excellent reports and studies describing different methods of assessing affordability challenges and assisting customers have been produced over the past few years. Some of these publications are mentioned below. This report does not try to duplicate that work but, rather, to add to it by addressing the primary question of how these programs can be funded in different states.

Findings

Private utilities,[1] government-owned utilities, and nonprofit water utilities often fall under different economic regulatory frameworks that influence their ability to use rate revenues to fund CAPs. In addition, the regulation of wastewater pricing in a few states differs from the regulation of water pricing. As noted above, private utilities in California are highly encouraged to develop CAPs funded by rate revenues while government-owned utilities are subject to constitutional provisions that purportedly severely limit or completely prohibit the establishment of rate revenue–funded CAPs.

In only a few states have the laws been clarified to specifically address the authority to establish CAPs from rate revenues. Washington State, for instance, has passed laws outlining how such programs can be created. To a lesser extent, states such as Kansas, Kentucky, and Nevada, have made it clear that at least some types of water and wastewater utilities can use rate revenues to fund CAPs. Figures 1 and 2 highlight the states where rate-funded CAPs have been authorized.

In some states, the administrative authority of home rule (the ability of local governments to set policy somewhat independently of state government) has allowed utilities to set their own regulatory guidelines for establishing CAPs.

1. Often referred to as "investor-owned utilities."

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

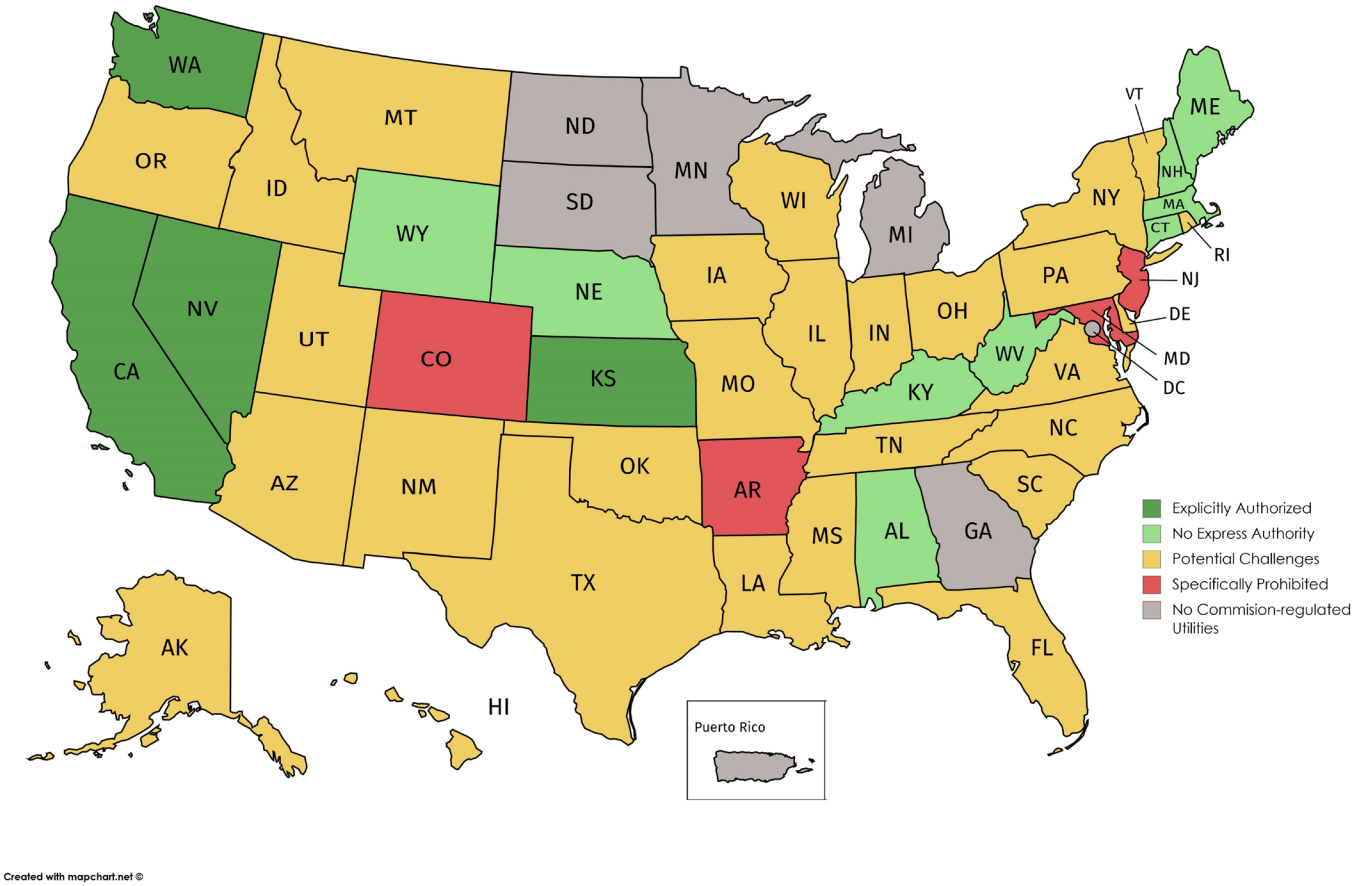

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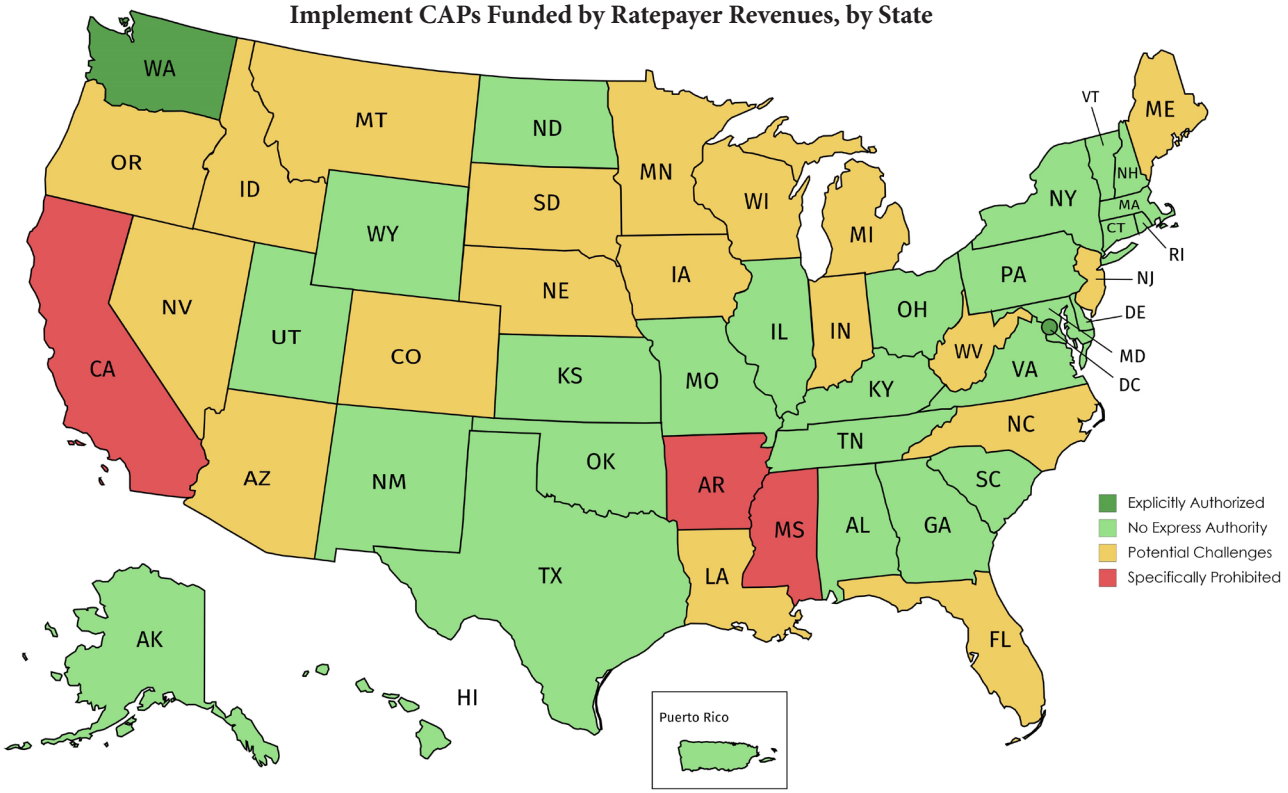
Figure 2. Noncommission-Regulated Utilities: Ability to Implement CAPs Funded by Ratepayer Revenues, by State



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Cities such as Philadelphia and Washington, D.C., have both enacted utility-level regulations and policies that authorize as well as provide guidelines for running these programs.

Most state regulations related to pricing for both private and government-owned utilities do not include specific language related to CAPs but, rather, general rate-setting guidance designed for monopoly protection. Case law on what is permitted tends to focus on pricing disputes not directly related to affordability programs, but that raise potential concerns over limiting authority to establish rate-funded CAPs. Many states are in a kind of stalemate with cautious attorneys citing potential challenges and program advocates arguing that CAPs would not get caught up in the language.

Utilities governed by state laws that do not expressly cover affordability programs, but can be interpreted as containing limitations for establishing them, have at least three viable options for successfully implementing a CAP. Each option carries its own level of potential hazard.

- **Option 1.** At the state level, introduce statutory language that addresses affordability programs in clear, unambiguous terms, similar to what has been done in Washington State and California (for private utilities). At the local level, as in Atlanta, Philadelphia, and Washington D.C., adopt legal language that expressly allows for rate-funded CAPs.
- **Option 2.** Develop an argument for why a CAP conforms to existing statutes and should not be affected by perceived limitations. For example, rather than framing a CAP as a subsidized rate class, present it as an essential cost of running a utility that provides financial benefits to all customers. CAPs for commission-regulated private utilities have to be approved before they can be implemented, but once approved, they will set an important precedent. In New York and California, commission approval for a few utility CAPs has increased the likelihood that other private utilities in those states will be able to establish them. Customers of noncommission-regulated utilities may challenge the fairness of a CAP after it is implemented, and the lack of clear and relevant case law makes it difficult to predict the outcome of such challenges. The cost of a successful challenge varies from state to state. If a utility is found to illegally overcharge one customer to fund another customer through its CAP, the utility could be liable for the overcharge amount plus court costs and penalties.
- **Option 3.** Develop an alternative program that does not rely on customer rate revenues to fund assistance to low-income individuals. Hundreds of modest programs from across the country rely on charitable donations or bill round-ups,[2] but relatively few programs have been designed on a significant enough scale to help all their customers who are likely to need financial help on a long-term basis. Utilities in Detroit, Michigan, and Raleigh, North Carolina, despite being in states with ambiguous rules, have found ways to fund robust programs that are not directly funded by customer rate revenues. In California, an effort is under way to transfer responsibility for funding these programs from individual utilities to the state; however, the options being considered follow the model of statewide electric programs, which add a surcharge on utility bills to fund these programs.

2. In a round-up program, a customer volunteers to have their utility bill payment "rounded up" to the nearest dollar (as an example), with this additional money going to needy customers.

Introduction

Background

Utilities are facing significant fiscal challenges, in particular, attending to infrastructure needs and achieving national environmental objectives. Meeting these challenges will require major investment in coming years, and utility customers (ratepayers) will ultimately be responsible for paying the bulk of these costs. Inevitably, meeting the need for additional revenues will require rate increases.

Although water and wastewater rates in most communities are still relatively low compared to those for other utility services, evidence suggests that they have been rising as utilities try to keep pace with their investment needs. In many parts of the country, rates are increasing faster than the rate of inflation.[3] These rate increases, though necessary to address infrastructure and environmental needs, have placed extra burdens on utility customers, particularly those at the lower end of the income scale. This problem is exacerbated by the fact that per capita water use is declining. At the same time, stormwater management is emerging as a significant addition to overall water management in many communities.[4]

The issue of customer or household affordability differs from the related challenge of system financial capacity, or financial capability, which deals with the collective ability of a particular community and an entire service population to fund their water and wastewater needs. The latter concept of system financial capacity is addressed in publications such as the Environmental Finance Advisory Board's EFAB Analysis and Recommendations on: Draft Financial Capability Assessment Framework.[5]

Much has been published on the general topic of affordability and the programs designed to make it easier for low-income households to pay for their water and wastewater services. The U.S. Environmental Protection Agency (EPA) recently published a compendium of customer assistance programs (CAPs) that includes a wide range of initiatives aimed at mitigating these challenges.[6]

The EPA compendium lists hundreds of utility programs across the country, categorizing them into five different types and briefly describing each program's

Types of Customer Assistance Programs (CAPs) as Defined by the EPA Compendium

Bill Discount. Utilities reduce a customer's bill, usually long-term. Can be applied to nearly any type of rate structure or aspect of the bill (e.g., variable rate structure, fixed service charge, and volumetric charge). Also known as **write-off, reduced fixed fee**.

Flexible Terms. Utilities help customers afford services and pay bills through arrearage forgiveness (e.g., rewarding timely bill payments by partially forgiving old debt and establishing a payment plan for future payments), bill timing adjustment (e.g., moving from quarterly to monthly billing cycles), or levelized billing (e.g., dividing total anticipated annual water and sewer bill by 12 to create a predictable monthly bill amount). Common categories of different program types include ***payment plans, connection loans, managing arrears, levelized billing, bill timing***.

Lifeline Rate. Customers pay a subsidized rate for a fixed amount of water, which is expected to cover that customer's basic water needs. When water use exceeds the initial fixed amount of water (i.e., the lifeline block), the rates increase. Also known as ***minimum bill, low-income rate structure, single tariff, water budget.***

Temporary Assistance. Utilities help customers on a short-term or one-time basis to prevent disconnection of service or restore service after disconnection for households facing an unexpected hardship (e.g., death, job loss, divorce, domestic violence). Also known as ***emergency assistance, crisis assistance, grant, one-time reduction***.

Water Efficiency. Utilities subsidize water efficiency measures by providing financial assistance for leak repairs and offering rebates for WaterSense-certified fixtures, toilets, and appliances. Also known as ***water conservation***.

Excerpt from U.S. Environmental Protection Agency, "Drinking Water and Wastewater Utility Customer Assistance Programs," April 2016, page 7.

3. Hughes J., Brandt P., Tiger M., Eskaf S., and Berahzer S. I., 2014. "Defining a Resilient Business Model for Water Utilities -4366." Page 103. Water Research Foundation, Denver, Colorado

4. See case studies for Washington D.C. and Portland, OR for stormwater references.

5. U.S. EPA, "EFAB Analysis and Recommendations On: Draft Financial Capability Assessment Framework" (2014).

6. U.S. EPA, "Drinking Water and Wastewater Utility Customer Assistance Programs" (2016).

goal and structure. (An excerpt from the compendium is presented in the accompanying sidebar.)

The compendium and similar reports provide utilities with examples and options to consider; however, they include little guidance on the legal frameworks influencing the feasibility of different types of programs in different states and, if a program is feasible, on how it can be funded. The American Water Works Association (AWWA) points out that legal and policy contexts influence the type of affordability program a utility can develop and the amount of subsidies that may be provided.[7] A 2010 report prepared jointly by the Water Research Foundation and the EPA describes the situation as follows:

> Overlaying many of the strategies for assisting consumers are numerous legal and regulatory requirements. There are myriad federal and state requirements (including constitutional requirements in some states), as well as local ordinances, that govern interactions between utilities, customers (especially residential customers), and third parties (such as billing or collection agents). It is neither feasible nor particularly useful to attempt to review all of these legal requirements here because laws, regulations, and ordinances change frequently. It is vitally important, however, for a utility contemplating a change in practices to obtain experienced legal counsel who can determine the applicable legal requirements.[8]

This report attempts to facilitate planning by providing practitioners with a snapshot of the legal landscape in all 50 states, the District of Columbia, and Puerto Rico. It does not, however, supplant the need to engage experienced legal counsel.

Methodology

To understand the legal framework for establishing and running CAPs in each state, the research team carried out a legal review of state statutes, utility commission rules, case law, and relevant CAPs in each state. The team then used this information to prepare a draft summary for every state, and each was sent to one or more utility commission staff or industry professionals in that state for review. The team also compiled basic demographic and financial information about each state to provide insight on the degree of affordability challenges present in the state. After considering comments from the reviewers, the summaries were finalized for inclusion here.

These summaries identify whether a state has granted utilities clear, unambiguous authority to fund CAPs through rate revenues or whether there is language that could be interpreted as limiting that authority. In some states, concern is raised by language indicating that rates must be strictly linked to the cost of providing service for individual ratepayers, whereas in other states, concern arises from language mandating that rate structures not be discriminatory. It is important to emphasize that these summaries do not provide legal views about how a court would interpret the language if a utility was challenged.

The research team worked with select reviewers and members of the steering committee to develop a simplified categorization system for describing the landscape of each state. This categorization appears in each of the 52 summaries and is collated in Figures 1 and 2 as well as Appendix B**.** To decide which of the four categories best fits a given state, several reviewers independently categorized the state. The average of their categorizations was then considered in determining the final categorization for each state. Even with this process, categorizing the states was still quite subjective.

The research team also developed 9 utility-level case studies to illustrate some of the findings derived from the legal snapshots. These case studies examine utilities in states with very clear statewide legislation related to rate revenue-funded CAPs (Seattle, for example, as well as private utilities in California, such as California Water Service); utilities in states characterized by strong local control where clear local guidance on these programs has been adopted (Atlanta and Washington, D.C.); utilities that do not directly rely on rate revenues but have nonetheless developed innovative programs that are significant in size and linked to general utility revenues rather than to outside donations

7. American Water Works Association (AWWA), "M1 Principles of Water Rates, Fees and Charges, 7th Edition." Denver, Colorado. 2017.
8. Best Practices in Customer Payment. Assistance Programs. Jointly sponsored by: Water Research Foundation. 6666 West Quincy Avenue, Denver, CO 80235.

(Raleigh, N.C., and Detroit); and utilities that use rate revenues to fund programs that are not purely income-based but provide disproportionate help to low-income customers (Camden County, N.J.). Some of these utilities use funding other than rate revenues, whereas others demonstrate innovative ways of creating alternative pathways to somehow address or confront the ambiguity in their relevant state's statutes.

In addition, case studies of the energy and telecommunications sectors illustrate how implementing low-income CAPs funded by rate revenues has been facilitated at the national and state levels. Finally, the research team developed case studies of utilities in England, Wales, and Spain, which show how water and wastewater utilities in other countries have addressed some of these issues more clearly than the United States.

Challenge of Assessing the Legal Framework

The legal framework governing rate setting and fee setting in many states is not precise. In many states, important aspects of rate setting have become clear only after a utility has interpreted the law to grant it authority, had the rate challenged by an impacted party, and the courts then provide interpretation. Litigated examples include development fees and differential rates for customers within a city's limits versus customers outside that boundary. These issues have significant financial impacts on utilities.

There is a dearth of case law relating directly to affordability programs, however. Absent such clarification, utilities must look for authority to create affordability programs in statutes that do not specifically mention them. It is therefore not surprising that the research team often received differing opinions from two experts who read the same broad guidance yet came away with two different interpretations. For this reason, the individual assessments focused on identifying and characterizing the language of each state but refrained from presenting a definitive conclusion on the limits of authority there.

Focus on Rate Revenues for Funding CAPs

The most crucial, and mostly unanswered, question is whether rate revenues[9] can be used to fund CAPs. In most states, if CAP funding comes from a foundation grant; a voluntary, bill round-up program; or any funding source outside of customer rate revenues, utilities in most states have relative flexibility to use those funds to assist customers. However, there are more restrictions on using actual rate revenues to fund CAPs. So, this report attempts to complement recent reports, such as the EPA compendium discussed above, by summarizing, on a state-by-state basis, existing statutes and regulations that authorize or, conversely, potentially prohibit CAPs funded by rate revenues. The focus here is on CAPs through which some utility customers cover the cost of assistance to other utility customers, either through the utility's rates or bill-payment practices. Low-income assistance is thus provided at the expense of other customers, with the cost included in the utility's revenue requirement submitted when rates are established.

As shown in Appendix B, a couple of states have statutes that provide "explicit authorization" for utilities to use rate revenues for CAPs. In a few other states, however, using rate revenues to fund CAPs has been clearly prohibited, either through statutory language that specifically mentions CAPs or case law that uniformly interprets the state as prohibiting rate-funded CAPs. It should be noted that states where funding CAPs with rate revenues is "specifically prohibited" also are in the minority. As shown in Figures 1 and 2, the vast majority of states fall into the ambiguous zone, where there is either

- ***no express authority*** *but nothing in the statutes or case law seems to limit an entity from implementing a program* or
- ***potential for challenge****, arising from ambiguous language, limiting terminology, cost of service requirements, and so on.*

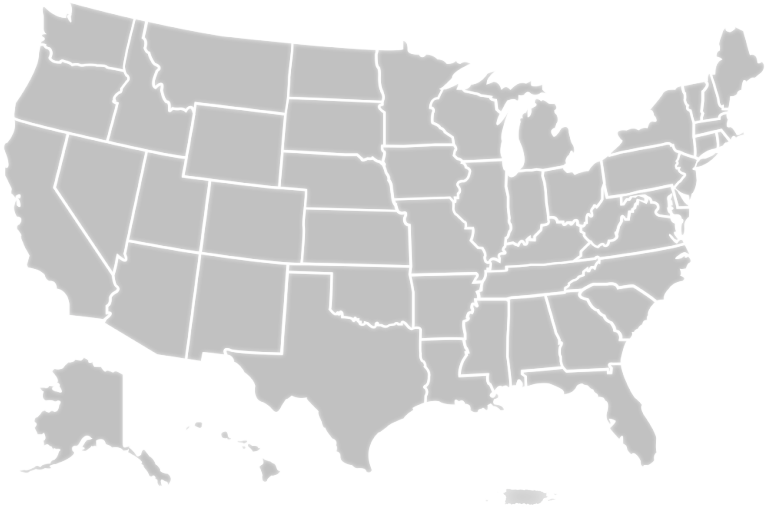
The Purpose of this Report

In presenting a detailed overview of how CAPs are paid for nationally as well as abroad, this guide seeks to help utilities and their affiliated organizations understand the legal frameworks influencing how CAPs are funded in their states. Utilities and/or affordability advocates who believe the current legal framework in their state needs to be modernized in order to accom-

9. See Appendix A for a brief description of different types of rate structures and relevant concepts

modate more robust, rate revenue–funded CAPs can gain insight from which laws need to be changed and how advocates in other states have addressed the issue. At the same time, utilities that want to move forward with a low-income assistance program even in states where the regulatory language is ambiguous or potentially limiting can use this guide to help understand the nature of the limitations as they design and justify their affordability programs.

State-By-State Policy and Legal Analysis



Any utility considering the legality of aspects of a CAP should seek legal advice from a qualified attorney. This guide does not supplant the need to engage experienced legal counsel.

Introduction to the State Summaries

The short summaries presented here provide an overview of the legal and policy framework for funding low-income water and wastewater assistance programs—and barriers to funding—in all 50 states as well as Puerto Rico and the District of Columbia.

Structure of the State Summaries

Each state summary includes a text box containing select data on the state (e.g., the state's population and its typical annual household water and wastewater expenditures).[10] Typically, an economic regulatory body, such as a public utilities commission or public service commission, governs certain rate setting and billing practices of select utilities. The summaries focus primarily on the statutorily designated role of these commissions with respect to water and wastewater rate setting.[11] The relative level of involvement of this regulatory body (referred to as "commission" going forward) is a key element of each summary.

The summaries begin with a description of commission-regulated utilities, followed by a discussion of noncommission-regulated utilities. Private utilities tend to be commission-regulated entities, whereas government-owned utilities are usually noncommission-regulated entities, but with notable exceptions. For example, in five states and the District of Columbia, no water and wastewater utilities are regulated by the commission. Also, in Wisconsin, a commission regulates all of the water utilities (private and government-owned alike) but very few wastewater utilities. Where such exceptions exist, they are highlighted in the individual state summaries.

Although the summaries begin with a discussion of commission-regulated utilities, the research team recognizes that these utilities serve a relatively small percentage of total customers in most states. They are discussed first solely for organizational clarity, and their placement in the summaries should not be viewed as an indication of priority status. Also of note, the category of noncommission-regulated utilities encompasses many entities not mentioned in this report, such as not-for-profits or co-operatives. These entities usually are governed by contracts they enter into with their local governments. In addition, the summaries regularly discuss government-owned utilities, a category that also encompasses some entities that are not discussed in detail. Instead of trying to cover every type of water or wastewater provider for every state, the summaries focus instead on providers most affected by state laws and policy. Finally, as mentioned above, each state summary starts with an attempt to categorize the state according to one of four categories based on the level of authorization for rate-funded CAPs for each type of utility under discussion (i.e., commission-regulated or non-commission–regulated). Table 1 serves as the key for each of these four categories:

Table 1. Authorization to Create Affordability Programs Using Rate Revenues

		Number of States	
		Commission-Regulated Utilities	Noncommission-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 requirements, etc., suggests the **potential for challenges**	28	19
	**Specifically prohibited**	4	3

10. Detailed explanations and caveats related to these data sources can be found in Appendix C.
11. Individual administrative orders or statements of the commissions are less of a focus for this report.

Recurring Legal and Policy Issues among States

Each state summary is unique, meaning that the analysis to be made by each utility provider would be case-specific depending on the type of utility, the regulating entity, and the statutory and regulatory framework of the respective state. However, several overarching legal and policy issues apply in most states and, therefore, influence the level of on whether a utility can operate CAPs funded by rate revenues.

Most notable among the overarching legal issues is the *absence of judicial interpretation of statutory terminology* related to permissible rate structures. As the word cloud of frequently used terms in statutes and case law reveals s(Figure 3), the most common limitation placed on water or wastewater utility rates is that they must be "reasonable." Many states use additional terms, such as requiring rates to be "uniform,"[12] "nondiscriminatory," or "just." All of these terms are highly influential in setting rates despite the absence of precise definitions for them. Because such terms are subject to a wide variety of interpretations, it is hard to predict whether a court or other reviewing body would interpret a given rate structure as fitting within their meaning. In some states, these terms have been interpreted in contexts much more clearly related to the cost of service or to differences in classes of customers. For example, the statutory language and/or case law of many states addresses the reasonableness of setting different rates based on territory (i.e., charging higher rates for customers located outside of the jurisdiction of the local government entity). Other cases discuss basing rates on a customer's status as a commercial customer or another specific type of industry customer. The analysis in such cases often relies heavily on justifications arising out of the differences in customer needs or territorial boundaries.

Although such cases provide some context for how a court might interpret "reasonable" or "nondiscriminatory," the interpretation does not address the heart of the issue examined by this report, that the reasonableness or justness of rates or bill-assistance measures based on income has a basis in public policy or benefits the utility as a whole. Uncovering the necessity of subsidizing rates for low-income customers is lacking in current case law regarding water and wastewater utilities.

Figure 3. A Word Cloud Showing the Frequency of Key Terms on Rate Setting in Statutes and Case Law for All 52 Entities

Utilities discussed in some state summaries (and case studies) have justified the use of rate revenues to fund CAPs by showing that the programs reduce costs incurred from shutoffs to service, bad debt, fruitless collection expenses, or other administrative costs associated with a customer base comprising a large number of low-income customers. The energy sector, in contrast, has many more examples of utilities that have been able to make the jump to using rate revenues to fund CAPs. Some states have even created specific statutory provisions requiring that CAPs be implemented for energy utilities—but not for water utilities. (See the section titled "Potential Model Program Elements from Other Utility Sectors" for a larger discussion of the approaches energy and telecommunications sectors have taken in implementing rate-funded CAPs that water and wastewater utilities can adopt.)

In states where there is as yet no legal precedent on whether a rate structure designed to include a rate-funded CAP would be treated as "reasonable," an entity might not be barred from implementing such a rate structure but may be subject nonetheless to a

12. It should be noted here that the word uniform is mentioned in many of the legal documents on this topic. In the utility rate-setting world, uniform usually refers to a rate structure wherein each unit of the product costs the same as other units. But, in the legal documents, uniform refers to the rates being the same or equal for different customers within the same class.

legal challenge based on whether it is "reasonable," "nondiscriminatory," or within any other statutorily or judicially imposed limitation. Stating definitively that a specific type of CAP is permitted, or not permitted, is difficult for any state due to these gray areas created by the lack of judicial interpretations or statutory guidance regarding what is "reasonable" and "nondiscriminatory."

Another potential legal barrier to authorizing rate-funded CAPs is that many states have *constitutional gift clauses* that prohibit or limit government entities or agencies from granting, donating, or subsidizing individuals, associations, or corporations. Most gift clauses include exceptions for government funds being expended for a public purpose, including social programs and public health services.[13] Based on the findings in this report, Georgia is the only state where the gift clause has been cited in a challenge to the implementation of reduced water rates for certain classes of individuals. Practitioners interested in utility incentives in general should nonetheless familiarize themselves with issues surrounding gift clauses in their state.

A third legal issue that should be considered is how an individual government's ability to implement certain types of CAPs may be affected by its adoption of home rule[14] or Dillon's rule[15] as applied to local government authority. The state summaries are geared toward law and policy that focus on the state as a whole; therefore, in home rule states where local governments are allowed to establish their own individual charters, such charters would need to be evaluated in conjunction with limitations on authority discussed in the state's summary. Meanwhile, local governments in strong Dillon's rule states may be more limited in the types of CAPs they are authorized to implement, depending on what powers are designated to local governments in those states and how courts have interpreted such powers. Some summaries specifically address local charters that allow or even require CAPs; others point out how some local governments have adopted limiting language to make CAPs harder to implement. Thus, both home rule and Dillon's rule add another layer of authority that an individual utility provider would need to consider in deciding what types of CAPs it could attempt to establish.

Much of the debate about legal limitations ultimately ends with interpretations based on what is reasonable or justified. States such as California and Washington State have taken steps to clarify the public health and social role water utilities play by enacting various clarifying legislation. For example, Section 106.3 of the Water Code in California codifies "water as human right," as something that should be taken into consideration when interpreting legal guidance.

A final point worth noting is that, in terms of discrimination in rate classifications, "discrimination is a relative term and that *absolute equality is seldom, if ever, fully realized*." Although this language specifically comes from the Kansas Supreme Court, many states echo the sentiment that to be unlawful, discrimination has to be unreasonable. Expounding on this, the Minnesota state summary highlights *Daryani v. Rich Prairie Sewer & Water District*,[16] where the Minnesota Court of Appeals makes reference to "perfect equality in establishing a rate system" not being "expected, nor can quality be measured with mathematical precision."[17]

Instead, the court articulates that the goal should only be a practical basis when establishing a rate system and that the "apportionment of utility rates among different classes of users may only be roughly equal."

Honing in on "Cost of Service"

One of the essential characteristics of CAPs that allow them to function effectively is that they are available only to customers who meet specific economic criteria, such as income, age, or employment status—that do not inherently influence the cost of providing the customer service. The nonservice characteristics or eligibility criteria are the elements that have traditionally made these programs problematic in states where

14. As mentioned above, the term home rule appears in many of the state summaries. However, the term has different connotations depending on the state. Although it does give some indication of the ability of local government utilities to establish their own parameters regarding affordability, home rule is more of a term of art that is not consistent between states.
15. Dillon's rule creates a standard for judicial interpretation, stating that municipalities can exercise only the following powers: "First, those granted in express words; second, those necessarily or fairly implied in or incident to the powers expressly granted; third, those essential to the accomplishment of the declared objects and purposes of the corporation–not simply convenient, but indispensable." (1 DILLON ON MUNICIPAL CORPORATIONS § 237 (5th ed. 1911)).
16. Daryani v. Rich Prairie Sewer & Water Dist., No. A05-1200, 2006 WL 619058, at *2 (Minn. Ct. App. Mar. 14, 2006) (unpublished).
17. Daryani, 2006 WL 619058, at *4.

utilities are required to adhere to a strict cost of service rate and billing framework. However, some utilities are making the case that CAPs affect "cost of service." Water and wastewater utilities, such as the Atlanta Department of Watershed Management, are making the business case to support funding CAPs with rate revenues. Essentially, these utilities have found that when CAPs are in place, the utility retains more of its low-income customers. From a financial perspective, CAPs, even those funded by rate revenues, may be preferable to a utility incurring expenses related to fruitless attempts to collect bad debt, for example.

Successfully making the business case for affordability programs is not a novel concept. For example, the past two editions of the American Water Works Association's "M1" outline the ways that not having affordability programs can hurt a utility's bottom line.[18]

Honing in on "Cross-Subsidies"

As discussed earlier, some arguments against using rate revenues to fund CAPs center on the concept of providing unfair cross-subsidies, where one set of customers pay extra in order to compensate for the low-income customers paying less than their allocated share of the cost of service. Although charging the share of the cost of providing service to customers based on the burden their demands place on the utility is a worthy ideal, it is one that no water or wastewater utility truly reaches. For example, not all customers live the same distance from the water plant, and that it costs the utility more to serve a customer the farther that customer lives from the plant. Also, higher-use customers often increase peak demand, which drives selected utility investment decisions. Unless the utility has a very well-researched and calculated increasing block rate structure, there is some subsidization here too.

Many communities also make the deliberate decision to have their residential customers subsidize commercial customers in order to spur economic development. Hence, income is just one area where cross-subsidization occurs in the water and wastewater sector. Cromwell et al. describe deliberate cross-subsidies as being "illegal in many jurisdictions and forbidden by utility policies in others." Cromwell et al. go on to explain, however, that "in the standard commercial approach to collections, much collections effort is wasted and costs of excessive disconnections, reconnections, and write-offs are incurred with no means of recovery except through the very same mechanism of cross-subsidy by full-paying customers."[19]

Because cross-subsidization occurs anyway, CAPs funded by rate revenues can be one way to make these cross-subsidies more "efficient" than going through the process of disconnections, reconnections, late payment charges, and so forth.

Disclaimers

Programs, laws, and cases related to affordability are currently underway in some states, notably in California, New York, and Texas. Therefore, this report serves as a snapshot of the condition of the state affordability climate at the time of publication.

This report only serves as a guide to state-level affordability legal policies. It does not constitute solicitation or provision of legal advice. Any utility considering the legality of aspects of a CAP should seek legal advice from a qualified attorney.

18. AWWA, M1 Principles of Water Rates, Fees, and Charges.

19. Water Research Foundation, Best Practices in Customer Payment Assistance Programs.

State-by-State Policy and Legal Analysis—Summaries for 52 Entities

Alabama

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.[20] 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[21] 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."[22] Ala. Code § 37-1-124 considers rates set by the APSC to be *prima facie* just and reasonable.[23] 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.[24] They are not subject to APSC regulation and thus can set their own water and wastewater rates.[25] 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.[26]

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

20. Ala. Code § 37-1-32; see also Ala. Code § 37-4-1.
21. The utility must also be in a Class 8 municipality.
22. State v. S. Bell Tel. & Tel. Co., 148 So. 2d 229, 231 (Ala. 1962).
23. Gen. Tel. Co. of S.E. v. Ala. Pub. Serv. Comm'n, 424 So. 2d 1288, 1289–90 (Ala. 1982) ("[The] Court shall set aside the order only if it finds: (1) The Commission erred to the prejudice of the appellant's substantial rights in its application of law; or (2) the order, decision, or award was procured by fraud or based on facts contrary to the substantial weight of the evidence.").
24. Ala. Code § 11-50-1, § 11-50-5.
25. Ala. Code § 37-1-34.
26. Factors allowed for consideration include:
(1) The quantity of water used upon the premises served by the sewer system; (2) The number and kind of water outlets upon or in connection with such premises; (3) The number and kind of plumbing facilities or sewer fixtures on or in connection with such premises; (4) The number of persons residing or working in or otherwise connected with or using such premises; (5) The type or character of such premises; (6) The capacity of the improvements on or connected with such premises; and, (7) Any other factors determining the type, class and amount of the use of or service by or from the sewer system; provided, however, that if any such charge shall be measured by the quantity of water used, the municipality shall make appropriate provision for adjustment of charges on account of consumption of water which does not enter the sewer system.

Based on the limits laid out above, non-commission–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.

Alaska

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

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	741,894
Median Annual Household Income (2015):	$72,515
Poverty Rate (2015):	10.2%
Typical Annual Household Water and Wastewater Expenditures (2015):	$984

Alaska has 417 community water systems (CWS), of which 198 are privately owned and 407 serve populations of 10,000 or fewer people.

Alaska has 12 publicly owned treatment works facilities (POTWs), of which 7 treat 1 MGD or less.

206,653 people are served by privately owned CWS; 484,939 are served by government-owned CWS; and 280,812 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$1.0 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Regulatory Commission of Alaska (RCA) regulates most water and wastewater utilities in Alaska. It gains its jurisdiction over water and wastewater utilities from Alaska Stat. § 42.05.141. Government-owned utilities are exempted from RCA rate regulation, unless the governing body of the political subdivision elects to be regulated, or unless the political subdivision utility directly competes with another utility.[27]

Under Alaska Stat. § 42.05.141, the RCA is granted the power to make or require "just, fair, and reasonable" rates for a commission-regulated utility. Additionally, Alaska Stat. § 42.05.381(a) requires that all rates shall be "just and reasonable," and Alaska Stat. § 42.05.391 prohibits any commission-regulated utility as to rates from "grant[ing] an unreasonable preference or advantage to any of its customers or subject[ing] a customer to an unreasonable prejudice or disadvantage."

Additionally, the same section provides that commission-regulated utilities may not establish or maintain an unreasonable difference as to rates, either between localities or between classes of service, and prohibits such utilities from "directly or indirectly refund[ing], rebat[ing], or remit[ting] . . . any portion of rates or charges, or from receiv[ing] greater or lesser compensation for its services than is specified in the effective tariff."[28] Finally, Alaska Stat. § 42.05.391(c) provides that a commission-regulated utility "may not extend to any customer any form of contract, agreement, inducement, privilege, or facility, or apply any rule, regulation, or condition of service except such as are extended or applied to *all* customers under like circumstances."

In response to a challenge to discriminatory rates allegedly put in place by a commission-regulated gas utility, the Alaska Supreme Court held that although *unreasonable* discriminatory rates are unlawful, discrimination based on justified difference in cost of service or which is otherwise within the zone of reasonableness is permissible.[29] In the same case, the Court further held that when "the rate structure is such that one class of customers subsidizes another, discrimination may pass beyond its permitted scope and become undue or unreasonable."[30]

Thus, commission-regulated water and wastewater

27. Alaska Stat. § 42.05.711(b). This section specifically exempts political subdivision utilities from regulation under that entire chapter, with some exceptions related to requirement of a certificate. Most important for the purposes of this summary, the rates of such utilities are not subject to regulation by the Regulatory Commission of Alaska.
28. Alaska Stat. § 42.05.391.
29. Jager v. State, 537 P.2d 1100, 1115-16 (Alaska 1975); see also Glacier State Tel. Co. v. Alaska Pub. Util. Comm'n, 724 P.2d 1187, 1191 (Alaska 1986).
30. Jager, 537 P.2d at 1110.

utilities in Alaska seeking to implement low-income customer assistance programs (CAPs) funded by rate revenues could potentially be limited by the strong statutory language, which appears to restrict utilities from offering any type of benefit to only one customer or group of customers.

Noncommission-Regulated Utilities

Municipalities[31] in Alaska, which are not regulated by the RCA, are subject to the limitations found in general Alaska law, or in the case of home rule municipalities, subject to the limitations found in their individual charters. Alaska Stat. § 29.35.070 provides that the governing body of a municipality may regulate, fix, establish, and change the rates and charges for utility service provided to it by a utility not regulated by the RCA.[32] Further, under that same section, the municipality must fix the rates through ordinance, and such rates must be *reasonable* and permit a fair return on invested capital.[33] There do not appear to be any further statutory restrictions or requirements regarding rates set by noncommission-regulated utilities.

Given the broad authority of noncommission-regulated utilities over their rates, such utilities would likely be able to implement a low-income CAP utilizing rate revenues with less potential for legal challenge than commission-regulated utilities would face.

31. Municipality is defined to include a political subdivision incorporated under the laws of the state that is a home rule or general law city, a home rule or general law borough, or a unified municipality. Alaska Stat. § 01.10.060(a)(4).
32. Alaska Stat. § 29.35.070 limits the unregulated public utilities to those not exempted under Alaska Stat. § 42.05.711(a); (d)-(k); (o); or (p).
33. This does not apply if the utility is a government-owned utility.

Arizona

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

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	6,931,071
Median Annual Household Income (2015):	$50,255
Poverty Rate (2015):	18.2%
Typical Annual Household Water and Wastewater Expenditures (2015):	$549

Arizona has 752 community water systems (CWS), of which 435 are privately owned and 687 serve populations of 10,000 or fewer people.

Arizona has 131 publicly owned treatment works facilities (POTWs), of which 81 treat 1 MGD or less.

1,228,732 people are served by privately owned CWS; 5,196,455 are served by government-owned CWS; and 5,340,473 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$13.2 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Arizona Corporation Commission (ACC) regulates private water and wastewater companies. It gains its jurisdiction over these companies from Ariz. Const. art. XV, § 3 and Ariz. Rev. Stat. § 40-203. The ACC does not regulate government-owned utilities. Ariz. Rev. Stat. § 40-361 provides that rates must be "just and reasonable."[34] Changes to rates require a company to provide notice to and to gain permission from the ACC.[35]

Commission-regulated companies must charge rates that are "regularly and uniformly extended to all persons" unless a rate is specifically ordered by the commission.[36] Further, Ariz. Rev. Stat. § 40-334 prohibits commission-regulated companies from making or granting "any preference or advantage to any person, or from subjecting any person to any prejudice or disadvantage."[37]

The prohibition against granting any preference or advantage may be the most stringent limitation relative to the creation of low-income customer assistance programs (CAPs) funded by rate revenues. Additionally, because commission-regulated utilities are required to submit rates and follow the approval of the ACC, in order to provide CAPs funded by rate revenues, a commission-regulated utility would likely need specific approval from the commission in the form of an ACC order to charge these rates.

Noncommission-Regulated Utilities

Municipalities and counties have the ability to own and operate water and wastewater utilities.[38] Before increasing rates, noncommission-regulated utilities owned or operated by municipalities must publish a report justifying the increase, hold a public hearing, and have the municipality's governing body adopt the

34. Additionally, Ariz. Const. art. XV, § 3 explicitly requires the Arizona Corporation Commission to prescribe just and reasonable classifications and just and reasonable rates and charges. This is unique, as the just and reasonable requirement is not usually found in a state's constitution.
35. Ariz. Rev. Stat. § 40-367.
36. Ariz. Rev. Stat. § 40-374.
37. See Town of Wickenburg v. Sabin, 200 P.2d 342, 343-44 (citing McQuillin Municipal Corporations, 2d ed., vol. 4, § 1829, for the proposition that public service corporations must treat all their consumers fairly and without unjust discrimination and give all of them the same service on equal terms at uniform rates without discriminating between customers similarly situated as to character of service rendered or charges made; and as regards discrimination in rates or service in the public utility field, a municipal corporation stands in the same position as a private corporation).

38. See Town of Wickenburg v. Sabin, 200 P.2d 342, 343-44 (citing McQuillin Municipal Corporations, 2d ed., vol. 4, § 1829, for the proposition that public service corporations must treat all their consumers fairly and without unjust discrimination and give all of them the same service on equal terms at uniform rates without discriminating between customers similarly situated as to character of service rendered or charges made; and as regards discrimination in rates or service in the public utility field, a municipal corporation stands in the same position as a private corporation).

increase.[39] Although noncommission-regulated utilities can largely set their own rates, state case law has held that municipal rates must be nondiscriminatory in the same manner as is required of commission-regulated companies.[40]

Therefore, if a noncommission-regulated utility implements a CAP funded by rate revenues, it could be challenged under the aforementioned standards. Some noncommission-regulated utilities offer bill discount programs, but it is unclear how each such program is funded. For example, Pima County offers 25 percent, 50 percent, and 75 percent discounts to its wastewater customers who have incomes below certain amounts.[41]

At a statewide level, Arizona has an affordability assistance program that provides bill assistance on an income basis. Ariz. Rev. Stat. § 46-741 creates the "Neighbors helping neighbors fund" to provide eligible customers with assistance. Eligible recipients are individuals who have a household income at or below 125 percent of the poverty level or individuals who are 60 years of age or older or persons with disabilities and who have a household income at or below 150 percent of the poverty level. State taxpayers fund this program via elective contributions on their individual state tax returns. The fund is one of 15 eligible charities and funds that overall generated $1.4 million dollars in contributions in 2014.

39. Ariz. Rev. Stat. § 9-511.01.
40. Town of Wickenburg, 200 P.2d at 343-44.
41. The Pima County Sewer Outreach Subsidy Program is funded with Sewer User Fees. Pers. comm. with Jennifer Coyle, Program Manager, Pima County Regional Wastewater Reclamation Dep't (Mar. 6, 2017).

Arkansas

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

Commission-regulated utilities STOP

Noncommission-regulated utilities STOP

State Population (2016):	2,988,248
Median Annual Household Income (2015):	$41,371
Poverty Rate (2015):	19.3%
Typical Annual Household Water and Wastewater Expenditures (2016):	$670

Arkansas has 697 community water systems (CWS), of which 118 are privately owned and 639 serve populations of 10,000 or fewer people.

Arkansas has 359 publicly owned treatment works facilities (POTWs), of which 301 treat 1 MGD or less.

212,034 people are served by privately owned CWS; 2,866,239 are served by government-owned CWS; and 1,802,415 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$6.8 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Arkansas Public Service Commission (APSC) regulates the rates and services[42] of private water and wastewater companies earning more than $1 million in annual revenues.[43] APSC does not regulate government-owned water or wastewater utilities, including those owned and operated by "cities, towns, improvement districts, or any other public or quasi-public corporation."[44]

Ark. Code Ann. § 23-4-103 and § 23-4-104(a) require the rates and charges of APSC-regulated utilities to be "just and reasonable."[45] Ark. Code Ann. § 23-3-114 further states that no commission-regulated utility "shall make or grant any unreasonable preference or advantage to any corporation or person or subject any corporation or person to any unreasonable prejudice or disadvantage." Under the same provision, no commission-regulated utility "shall establish or maintain any unreasonable difference as to rates or services, either as between localities or as between classes of service."[46] Ark. Code Ann. § 23-4-101(b) indicates that the rates of commission-regulated utilities may not be unjust, unreasonable, insufficient, unjustly discriminatory, or otherwise in violation of any of the provisions of the law.

The language included in Ark. Code Ann. § 23-3-114 and § 23-4-101(b) potentially limits the ability of commission-regulated utilities to provide low-income assistance funded by customers. Case law further confirms that the APSC cannot implement low-income customer assistance programs (CAPs) absent specific authorization from the Arkansas General Assembly.

Specifically, in *Arkansas Gas Consumers, Inc. v. Arkansas Public Service Commission*,[47] the Supreme Court of Arkansas considered the legality of APSC's Temporary Low Income Customer Gas Reconnection Policy. As part of the program, income-eligible customers who had been disconnected from service could have their service restored if they paid their utility's reconnection fee in full and agreed to participate in a levelized payment plan under which they would eventually repay all past debt. To help cover the costs associated with the debt from overdue payments in the interim, APSC levied a temporary surcharge against all customers. The court ruled that APSC had no legislative author-

42. Under Ark. Code Ann. § 23-4-201, the APSC has "sole and exclusive jurisdiction and authority to determine the rates to be charged for each kind of product or service to be furnished or rendered by" the utilities it regulates.
43. Additionally, a private water company may petition the APSC to be regulated if it has annual revenues greater than $400,000 for the three years prior to the petition.
44. "Gas & Water Section," Arkansas Pub. Serv. Comm'n.
45. Ark. Code Ann. § 23-4-103 also states that to the extent "rates, rules, or regulations may be unjust or unreasonable, [they] are prohibited."
46. Ark. Code Ann. § 23-3-114.
47. Arkansas Gas Consumers, Inc. v. Arkansas Pub. Serv. Comm'n, 118 S.W.3d 109, 112 (Ark. 2003).

ity to develop and mandate the program, in large part because the surcharge did not cover allowable expenses under state law, including expenses reasonably incurred with respect to existing facilities as a *direct* result of legislative or regulatory requirements. The court specifically stated "what the dissent fails to address is that nowhere in the Utility Code is the PSC, on its own motion, given the legislative authority to pay off the bad debt of low-income customers by assessing all ratepayers; nor is authority granted to the PSC to continue that assessment on all ratepayers to fund a low-income assistance program . . . . Had the General Assembly intended the PSC to have this additional authority, it could have easily provided for it as did California."[48]

Thus, commission-regulated utilities in Arkansas cannot currently implement low-income CAPs funded by rate revenues.

Noncommission-Regulated Utilities

In Arkansas, government-owned utilities that are not regulated by APSC primarily include municipal-owned utilities and improvement districts. Ark. Code Ann. § 14-235-223(a)(1) provides guidance for municipal-owned wastewater utilities, stating that "the council of the municipality shall have power . . . by ordinance to establish and maintain *just and equitable* rates or charges for the use of and the service rendered." Ark. Code Ann. § 14-250-111 provides wastewater treatment districts with the authority to fix, regulate, and collect rates and charges for the services they provide, stipulating that the rates shall be "just, reasonable, and nondiscriminatory."

Separately addressing municipal water supply utilities, Ark. Code Ann. § 14-234-214 authorizes the legislative body of a municipality to fix rates and charges for water supply systems.[49] Ark. Code Ann. § 14-234-214 allows municipal-owned water supply utilities to use surplus revenues in multiple ways, including for "any other municipal purpose."[50] However, "municipal purpose" is not left to the discretion of the governing body. Ark. Code Ann. § 14-199-101 limits the use of surplus revenues to a list of specific purposes, which, in terms of assistance, includes only assistance for low-income customers of municipal electric utilities.[51]

Importantly, all municipalities and counties in Arkansas can *only* exercise such powers as are expressly granted to them by the legislature and as are necessarily implied for effecting the purposes for which the grant of power was made.[52] Thus, because Ark. Code Ann. § 14-199-101 does not specifically authorize municipal-owned water and wastewater utilities to use surplus revenues for low-income CAPs, these programs are not allowed in the state of Arkansas.[53] At least one noncommission-regulated water utility, Central Arkansas Water, provides temporary assistance to residential customers through its Help to Others Customer Assistance Fund. However, this program receives its funding from advertising sales, not from customer surcharges or rate revenues.

48. Id. at 124.
49. The statute further mandates that the rates be adequate to pay the principal of and interest on all revenue bonds and promissory notes, make payments into a revenue bond sinking fund, provide an adequate depreciation fund, and cover operation and maintenance costs for the waterworks system.
50. Pursuant to Ark. Code Ann. § 14-235-223, municipalities must first transfer surplus revenues into either a depreciation account or bond and interest redemption account. If a surplus still exists in the bond and interest redemption account, the municipality can use the excess revenues for "any other municipal purpose," and other items as specified.
51. Specifically, the statute allows municipal electric utilities to use up to 4 percent of surplus revenues to provide low-income customers with home energy efficiency improvements, bill payment assistance, or other approved assistance.
52. Pursuant to City of Malvern v. Young, 171 S.W.2d 470, 474 (Ark. 1943), government-owned utilities may have some authority to charge different rates to different customers. However, this has generally been interpreted to mean that utilities can charge customers different rates based on differences in the cost of service.
53. Pers. comm. with Dawn Kelliher, General Counsel, Arkansas Pub. Serv. Comm'n (Jan. 9, 2017).

California

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

Commission-Regulated Utilities

The California Public Utilities Commission (California PUC) regulates private water and wastewater companies. The California PUC gains its jurisdiction over such utilities from article XII, § 3 of the California Constitution. It specifically gains jurisdiction over rate setting from article XII, § 6 of the California Constitution.

The California PUC has unique explicit statutory authority to allow companies it regulates to have low-income customer assistance programs (CAPs). Specifically, Cal. Pub. Util. Code § 739.8 provides that: "Access to an adequate supply of healthful water is a basic necessity of human life, and shall be made available to all residents of California at an affordable cost."

The commission shall consider and may implement programs to assist low-income ratepayers in order to provide appropriate incentives and capabilities to achieve water conservation goals. In establishing the feasibility of rate relief and conservation incentives for low-income ratepayers, the commission may take into account variations in water needs caused by geography, climate and the ability of communities to support these programs.[54]

Thus, there is *express* statutory authorization for commission-regulated utilities to implement low-income CAPs funded by rate revenues. To implement these programs, commission-regulated utilities need approval from the California PUC to make changes to their rates. Currently, all large utilities, labeled "Class A" by the California PUC, have low-income CAPs.[55] One example is the California Water Service. It was the first commission-regulated utility to propose a CAP in California, and it offers a Low-Income Rate Assistance program. Through this program, California Water Service provides a 50 percent bill discount to eligible low-income customers.[56]

Commission-regulated utilities GO

Noncommission-regulated utilities STOP

State Population (2016):	39,250,017
Median Annual Household Income (2015):	$61,818
Poverty Rate (2015):	16.3%
Typical Annual Household Water and Wastewater Expenditures (2015):	$855

California has 2,961 community water systems (CWS), of which 1,823 are privately owned and 2,532 serve populations of 10,000 or fewer people.

California has 497 publicly owned treatment works facilities (POTWs), of which 275 treat 1 MGD or less.

6,811,150 people are served by privately owned CWS; 34,391,629 are served by government-owned CWS; and 39,760,708 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$64.6 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Noncommission-Regulated Utilities

In contrast, many believe that the same type of low-income water and wastewater utility CAPs that are en-

54. Collectively, these assistance programs are called California Alternative Rates for Water (CARW), which parallels the program California Alternative Rates for Energy (CARE). The California PUC is even advised on low-income customer assistance programs by an internal Low-Income Oversight Board, and it reports progress on program enrollment to the board. The California PUC provides a list of all the programs.

55. "Water Utilities Current Issues," Water Affordability Low-Income Oversight Board, at 15.

56. California American Water offers the H2O Help to Others Program. Under this program, customers can make payment arrangements if they cannot pay their bill. Assisted customers must pay at least 25 percent of the bill within 48 hours of contacting California American Water, paying the rest of the bill, including any applicable late payment charge, according to an agreed upon schedule, not to exceed 6 months, and paying all future bills as they become due. Furthermore, only customers who have not broken similar agreements in the past 12 months are eligible to make these payment arrangements. California American Water also offers bill discounts to qualifying low-income customers.

couraged and implemented by commission-regulated utilities are unlawful for government-owned utilities. In 1996, Proposition 218 added article XIII C and article XIII D to the California Constitution,[57] which have been interpreted to limit government-owned utilities from using rate revenues to subsidize low-income CAPs.[58] These articles have established a high bar in regards to using rate revenues from specific customer classes. Recent case law found that tiered rates that resulted in overcharging a class of customers and generating revenues were considered a cross subsidization.[59] Furthermore, Proposition 218 requires voter approval from property owners within a utility's service area for rate increases.[60]

Therefore, many noncommission-regulated utilities have determined that they should fund low-income CAPs with external funding or non-rate utility revenue to avoid the significant challenges under the current interpretation of Proposition 218. For example, East Bay Municipal Utility District offers a low-income CAP that is funded primarily through property tax revenue.

Of additional importance, in 2012 California passed the State Water Policy Act, which established that water is a human right.[61] California also passed the Low-Income Water Rate Assistance Program Act in 2015, which gave the State Water Resources Control Board the authority to develop a plan for funding and implementing low-income rate CAPs.[62] This plan must be in place no later than January 1, 2018. These laws do not require or expressly authorize government-owned water utilities to bypass Proposition 218 to create low-income CAPs funded by rate revenues. However, they do leave the door open for the California legislature to make new laws that may do so in the near future.

57. Specifically, Cal. Const. art. XIII D, § 6(b)(1)–(4), states:
(b) Requirements for Existing, New or Increased Fees and Charges. A fee or charge shall not be extended, imposed, or increased by any agency unless it meets all of the following requirements:
Revenues derived from the fee or charge shall not exceed the funds required to provide the property related service.
Revenues derived from the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed.
The amount of a fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel.
No fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question. Fees or charges based on potential or future use of a service are not permitted. Standby charges, whether characterized as charges or assessments, shall be classified as assessments and shall not be imposed without compliance with Section 4.
58. See Jon Coupel and Jack Cohen, "Water Rates under Prop. 218," Howard Jarvis Taxpayers Assoc. (providing an analysis from the proposition's drafters on the effect of Proposition 218 on water rates setting).
59. Capistrano Taxpayers Assoc., Inc., v. City of San Juan Capistrano, 235 Cal. App. 4th 1493, 1515-17 (2015).
60. Cal. Const. art. XIII D, § 6(c).
61. Cal. Assem. Bill No. 685 (Cal. Reg. Sess. 2012); Cal. Water Code § 106.3.
62. Cal. Assem. Bill No. 401 (Cal. Reg. Sess. 2015); Cal. Water Code § 189.5.

Colorado

Water and wastewater utilities in Colorado fall under multiple rate setting regulatory systems.

Commission-Regulated Utilities

Article XXV of the Colorado Constitution provides the Colorado Public Utilities Commission (Colorado PUC) with the authority to regulate the facilities, services, rates, and charges of private water and wastewater companies.[63] The Colorado PUC provides only simplified regulation to some small private water companies.[64] The Colorado PUC does not have jurisdiction over municipal-owned utilities.

The Colorado PUC establishes industry rate standards and approves rates for fully regulated water corporations, ensuring that financial, engineering, legal, and economic requirements are met. Pursuant to Colo. Rev. Stat. § 40-3-101, all charges made, demanded, or received by commission-regulated utilities must be "just and reasonable." However, Colo. Rev. Stat. § 40-3-106(1) expressly prohibits such utilities from granting "any preference or advantage to a corporation or person" or establishing or maintaining "any unreasonable difference as to rates, charges, service, facilities, or between localities or class of service." In 1979, the Colorado Supreme Court concluded that providing a special rate for low-income customers constituted an unreasonable preference under Colo. Rev. Stat. § 40-3-106(1).[65]

In response, in 2007, the legislature enacted subsection (d)(I) of Colo. Rev. Stat. § 40-3-106(1) to overturn this decision. Specifically, subsection (d)(I) provides that "the commission may approve any rate, charge, service, classification, or facility of a gas or electric utility that makes or grants a reasonable preference or advantage to low-income customers, and the implementation of such commission-approved rate, charge, service, classification, or facility by a public utility shall not be deemed to subject any person or corporation to any prejudice, disadvantage, or undue discrimination."[66] Because the amendment applies only to natural gas and electric utilities, it is currently still unlawful for commission-regulated water and wastewater utilities to implement low-income customer assistance programs (CAPs) funded by rate revenues.

Commission-regulated utilities 

Noncommission-regulated utilities

State Population (2016):	5,540,545
Median Annual Household Income (2015):	$60,629
Poverty Rate (2015):	12.7%
Typical Annual Household Water and Wastewater Expenditures (2015):	$755

Colorado has 871 community water systems (CWS), of which 403 are privately owned and 788 serve populations of 10,000 or fewer people.

Colorado has 250 publicly owned treatment works facilities (POTWs), of which 210 treat 1 MGD or less.

231,555 people are served by privately owned CWS; 5,419,011 are served by government-owned CWS; and 4,120,517 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$11.2 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Noncommission-Regulated Utilities

In Colorado, utilities that are not regulated by the Colorado PUC include municipalities, counties, and

63. Specifically, the constitution provides regulation authority over "public utilities," further defined by Colo. Rev. Stat. § 40-1-103, which defines one type of public utility, "water corporations," to include combined water and wastewater corporations, whether as a single entity or as different entities under common ownership.

64. Colo. Rev. Stat. § 40-3-104.4 requires the Colorado PUC to provide simplified regulatory treatment for small water companies, balancing regulatory oversight with the cost of such regulation

65. See Mountain States Legal Found. v. Pub. Util. Comm'n, 590 P.2d 495, 498 (Colo. 1979).

66. Colo. Rev. Stat. § 40-3-106(1)(d)(1).

special districts.[67] Colorado's state constitution allows cities, towns, and counties to adopt home rule charters.[68] The constitution expressly confers to home rule entities "all powers necessary, requisite, or proper for the government and administration" of local and municipal matters, including water and sanitation.[69]

Cities, towns, and counties that do *not* adopt home rule charters are subject to statutory authority and have only those powers that are expressly granted by the state legislature. State statutes generally allow local governments to create rate systems to meet their individual needs. However, Colo. Rev. Stat. § 37-97-101 requires the use of meters in order to "equitably" bill customers for their demand on the system.[70]

Water or wastewater special districts, created under Colo. Rev. Stat. § 32-1-103, may impose and collect service charges, which must be *uniform* across type, class, and amount of use of facilities or related services.

In summary, home rule municipalities would likely have the authority to implement low-income CAPs funded by rate revenues, subject to any specific regulations included in local charters. Municipalities without home rule charters seeking to implement such programs may be subject to an equitability clause. Finally, special districts implementing low-income CAPs could face legal challenge on the basis of the statutory "uniformity" requirement.

67. Colo. Const. art. XX & art. XIV; see also Colo. Rev. Stat. § 32.
68. Colo. Const. art. XX, § 9 (for cities and towns) & art. XIV, § 16 (for counties).
69. Currently, 99 of Colorado's 271 municipalities, including the state's 10 largest cities, operate under a home rule charter.
70. Pursuant to Colo. Rev. Stat. § 37-97-101, all water systems with at least 600 taps must install meters.

Connecticut

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

Commission-Regulated Utilities

Connecticut's Public Utilities Regulatory Authority (PURA), part of the Department of Energy and Environmental Protection, regulates the rates and services of private water and wastewater companies under Conn. Gen. Stat. § 16-6b.[71] PURA does not regulate government-owned utilities, regional water authorities, or regional wastewater districts.

Conn. Gen. Stat. § 16-19e establishes PURA's authority to examine rate structures of private water and wastewater companies. Pursuant to Conn. Gen. Stat. § 16-19, rates must be *just and reasonable* and cannot be "unreasonably discriminatory or more or less than just, reasonable and adequate to enable [commission-regulated utilities] to provide properly for the public convenience, necessity and welfare." This language seems to provide the opportunity for commission-regulated utilities to offer low-income customer assistance programs (CAPs) funded by rate revenues. However, such programs would likely be subject to PURA approval on the basis of reasonableness and nondiscrimination.[72]

At least two commission-regulated private water companies, Aquarion Water Company (AWC) and the Connecticut Water Company, currently offer CAPs funded by customer revenues. Since 2007, AWC has annually provided one-time vouchers of $50 to the first 1,000 customers who qualify. Connecticut Water partners with local social service agencies in the H_2O—Help to Our Customers Hardship Program to offer CAPs in the form of cash grants based on federal and state income thresholds for low-income assistance. It also offers flexible payment arrangements to customers who do not qualify for the cash grants.

Commission-regulated utilities 

Noncommission-regulated utilities 

State Population (2016):	3,576,452
Median Annual Household Income (2015):	$70,331
Poverty Rate (2015):	10.5%
Typical Annual Household Water and Wastewater Expenditures (2015):	$1,272

Connecticut has 504 community water systems (CWS), of which 406 are privately owned and 467 serve populations of 10,000 or fewer people.

Connecticut has 88 publicly owned treatment works facilities (POTWs), of which 33 treat 1 MGD or less.

982,439 people are served by privately owned CWS; 1,723,493 are served by government-owned CWS; and 2,113,384 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$8.2 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Noncommission-Regulated Utilities

In Connecticut, utilities that are not regulated by PURA include municipal-owned water and wastewater utilities (known as water pollution control authorities), community sewerage systems, regional water authorities, and regional wastewater districts. Municipal-owned water utilities[73] have jurisdiction over their rates according to Conn. Gen. Stat. § 7-239, which states that "the legislative body shall establish *just and equitable* rates or charges for the use of the waterworks system," and further, "such rates or charges shall be *sufficient* in each year for the payment of the expense

71. Such companies are regulated by the Water Unit, a division of Public Utilities Regulatory Authority.

72. See Town of Vernon v. Public Utilities Commission, 318 A.2d 121, 125-126 (Conn. Super. Ct. 1971) (holding that reasonableness is defined on a case-by-case basis; that "rates may be high enough to cover the cost of service, the carrying charges, a reasonable sum for depreciation, and a fair return upon the investment;" and specifically that "the amount of money which has been actually and wisely expended in producing the required service is always a primary consideration").

73. Pursuant to Conn. Gen. Stat. § 7-255 (1967), a municipality includes "any town, city, or borough or district organized for municipal services."

of operation, repair, replacements and maintenance of such system and for the payment of the sums herein required to be paid into the sinking fund." Pursuant to Conn. Gen. Stat. § 7-255, municipal-owned sewerage systems must also establish "fair and reasonable" charges. Regional water authorities and regional wastewater districts are established by the Connecticut General Assembly through special law, which provides them with the authority to establish rates and charges.[74]

Given that rates are only statutorily required to be "just and equitable," government-owned utilities that operate pursuant to a home rule charter are likely able to provide low-income CAPs funded by customer revenues, subject to any limitations found in individual charters.[75] It is less clear whether government-owned utilities that operate under general law or which are established by special act are able to provide such CAPs, because they are not expressly authorized to do so.

74. For example, Special Act 77-98, which establishes the South Central Connecticut Regional Water Authority, requires that rates be "equitable, just, and nondiscriminatory" and sufficient to pay all reasonable and necessary expenses of the authority and of the representative policy board to the extent that such expenses are allocable to the water supply and wastewater activities of the authority and of the representative policy board.
75. In Connecticut, close to 60 percent of municipalities have adopted home rule charters.

Delaware

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

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	952,065
Median Annual Household Income (2015):	$60,509
Poverty Rate (2015):	12.0%
Typical Annual Household Water and Wastewater Expenditures (2015):	$680

Delaware has 214 community water systems (CWS), of which 179 are privately owned and 197 serve populations of 10,000 or fewer people.

Delaware has 17 publicly owned treatment works facilities (POTWs), of which 9 treat 1 MGD or less.

521,842 people are served by privately owned CWS; 366,540 are served by government-owned CWS; and 701,973 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$0.6 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Delaware Public Service Commission (DPSC) regulates most aspects of water and wastewater services provided by private water and wastewater companies, including the establishment of rates.[76] DPSC does not regulate government-owned water and wastewater utilities.

The Public Utilities Act of 1974 (Del. Code Ann. § 26-301a) establishes that no commission-regulated "utility shall make, impose or exact any unjust or unreasonable or unduly preferential or unjustly discriminatory individual or joint rate . . . or enforce any regulation, practice or measurement which is unjust, unreasonable, unduly preferential or unjustly discriminatory." DPSC may also, after a hearing, "fix just and reasonable individual rates…which shall be imposed, observed and followed thereafter…whenever the Commission determines any existing individual rate...to be unjust, unreasonable, insufficient, or unjustly discriminatory or preferential."[77]

However, state statutes also provide that DPSC shall authorize commission-regulated utilities "to establish an individual or joint rate for any product or service rendered within the State for the purposes of ensuring the State's current and future economic well-being and growth..." if the commission makes certain requisite findings, which include finding that the rate is "in the public interest" and that the rate "prevents the loss of customers."[78]

Thus, it appears that DPSC may authorize special individual or joint rates under certain circumstances, which may at times align with the provision of low-income assistance. However, in general, if a commission-regulated utility seeks to implement low-income customer assistance programs (CAPs) funded by rate revenues, such programs may be subject to legal challenge to determine if they are unduly preferential or discriminatory.

Noncommission-Regulated Utilities

Utilities that are not regulated by DPSC include water and wastewater utilities owned and operated by county or municipal governments. Municipal-owned utilities seem to have broad authority to set water and wastewater rates. The majority of Delaware's municipalities

76. Utility tariffs outline the rules that commission-regulated utilities must follow when setting rates for their services.
77. Del. Code Ann. § 26-309a.
78. Del. Code Ann. tit. 26, § 303d(1). Before authorizing an individual or joint rate, the DPSC must find that the rate is in the public interest; that the rate prevents the loss of customers, encourages customers to expand present facilities and operations, or attracts new customers; that the rate will provide recovery of at least incremental cost of providing the service; if, how, and to what extent any discount shall be recovered; and, the period of time during which the rate will remain in effect.

have adopted municipal charters,[79] under which they can establish rules for setting water and wastewater rates and charges. For example, the municipal charter for Wilmington specifically states that any wastewater rate, fee, or charge "may include a discount for payment within a certain period of time and a penalty for failure to pay within a certain period of time."

The language governing county-owned utilities is more limiting. Title 9 of the Delaware Code separately provides each of Delaware's three counties with the authority to operate water and wastewater systems and to charge and collect rates for the use of services. Pursuant to Del. Code Ann. § 9-6709, county service charges "shall, as near as the county government deems practicable and equitable, be *uniform* throughout the area served by the sewerage or water system," and may be based on water consumption, the number and kind of water outlets at a property, the number and kind of plumbing or sewerage fixtures or facilities, the number of people residing or working at a property, on a front footage basis, "or on other factors determining the type, class and amount of use or service of the sewerage or water system, or on any combination of any such factors." Thus, although counties seem to have leeway to determine rates for different types of customers, state statutes do require rates to be uniform.

Based on state statutes and regulations that allow municipalities to adopt home rule charters, municipal-owned utilities seem to have potential to establish low-income CAPs funded by rate revenues. Although the language for counties is more limiting, Sussex County currently offers eligible customers a subsidy of up to $200 per year to help pay for water and wastewater services (customers can access subsidies for water and wastewater separately, so total subsidies amount to a maximum of $400). To be eligible for the program, the customer must be the homeowner and full-time resident of the property and meet income and asset requirements. The City of Wilmington also has the option to provide discounts on wastewater bills.

79. A chartered city, county, or municipality is one that possesses a unique set of laws that forms the legal foundation of its local system of government. Charters define the powers and functions of elected officials, as well as the organization and procedures of local government. Currently, 55 of Delaware's 57 municipalities have adopted municipal charters.

District of Columbia

Commission-regulated utilities	*N/A*
Noncommission-regulated utilities	GO

State Population (2016):	681,170
Median Annual Household Income (2015):	$70,848
Poverty Rate (2015):	18.0%
Typical Annual Household Water and Wastewater Expenditures (2015):	$719

District of Columbia has 5 community water systems (CWS), of which 0 are privately owned and 2 serve populations of 10,000 or fewer people.

District of Columbia has 1 publicly owned treatment works facilities (POTWs), of which 0 treat 1 MGD or less.

664,572 are served by government-owned CWS; and 2,177,897 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$4.4 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Water and wastewater regulation in the District of Columbia operates differently than in most other states or territories in that there is only one water provider for the entire District.[80]

The District of Columbia Water and Sewer Authority (DC Water) provides all water and wastewater services in the District of Columbia. District legislation, D.C. Code § 34-2202.02, created DC Water in 1996. DC Water is not regulated by the District's public utility commission[81] and has authority to set its own rates.[82]

D.C. Code § 34-2202.16(b) requires DC Water to establish and adjust water and wastewater rates after notice and public hearing.

Additionally, D.C. Code § 34-2202.16(b-1)(1)-(2) provides that DC Water "*shall* offer financial assistance programs to mitigate the impact of any increases in retail water and [wastewater] rates on low-income residents of the District, including a low-impact design incentive program." The same section of the code further requires that, as of a certain date, DC Water "*shall* provide a report to the Council of the District of Columbia detailing the number of low-income residents affected by increases in retail water and [wastewater] rates and strategies that will significantly increase enrollment in existing discount programs available to low-income ratepayers."[83]

Thus, DC Water is not only permitted to implement low-income customer assistance programs (CAPs) funded by rate revenues, but is actually *mandated* to provide some sort of program. The statutory requirements that DC Water implement low-income CAPs were added in 2009. They very clearly reflect a general policy of ensuring that low-income customers are protected and encouraged to participate in any CAPs the District offers.

Currently, DC Water offers a CAP administered by the District of Columbia's Department of the Environment and Energy, which provides a bill discount of up to $37.00 per month, under current rates, on a qualifying low-income customer's water and wastewater bill.[84]

80. The District of Columbia has five community water systems, none of which are privately owned and two of which serve populations of fewer than 10,000 people. Although DC Water provides all consumer drinking water service in the District, the utility delivers water that has first been treated by Washington Aqueduct. The District's remaining three community water systems are military bases that apply additional drinking water treatments.

81. In fact, the District's public utility commission does not regulate water or wastewater services at all. There are only six other states that do not regulate private water and wastewater companies: Georgia, Michigan, Minnesota, Nebraska, North Dakota, and South Dakota.

82. D.C. Code § 34-214 defines public utility as including "every street railroad, street railroad corporation, common carrier, gas plant, gas company, electric company, telephone corporation, telephone line, telegraph corporation, telegraph line, and pipeline company."

83. D.C. Code § 34-2202.16(b-1)(1)-(2)

84. The customer assistance program (CAP) offered by DC Water is based on a customer's eligibility for the Federal Low-Income Home Energy Assistance Program (LIHEAP). Customers who qualify for LIHEAP are automatically eligible for DC Water's CAP. They do not have to prove their income again in order to apply.

Florida

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	20,612,439
Median Annual Household Income (2015):	$47,507
Poverty Rate (2015):	16.5%
Typical Annual Household Water and Wastewater Expenditures (2015):	$725

Florida has 1,647 community water systems (CWS), of which 973 are privately -owned and 1,406 serve populations of 10,000 or fewer people.

Florida has 371 publicly owned treatment works facilities (POTWs), of which 181 treat 1 MGD or less.

1,371,784 people are served by privately owned CWS; 18,421,027 are served by government-owned CWS; and 13,038,635 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$32.3 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Water and wastewater utilities in Florida fall under two main rate setting regulatory systems.

Commission-Regulated Utilities

Under Fla. Stat. § 367, the Florida Public Service Commission (FPSC) has exclusive jurisdiction over certain private water and wastewater companies, with respect to authority, service, and rates. However, the FPSC's regulation of all private water and wastewater companies is not automatic. Fla. Stat. § 367.171(1) provides that county governments have the option of either regulating the rates, services, and territory of private water and wastewater companies within their jurisdiction, or of ceding such jurisdiction to the FPSC.[85]

With respect to rate-setting, the FPSC is responsible for fixing rates that are "just, reasonable, compensatory, and not unfairly discriminatory."[86]

Commission-regulated companies or utilities are limited to imposing and collecting rates and charges, which have been approved by the commission for the particular class of service involved.[87]

In sum, commission-regulated water and wastewater companies or utilities are required to collect only rates and charges, which have been approved by the FPSC, and the statutes don't address whether an entity may request a rate modification to put into place an affordability program. Therefore, in order to implement a customer assistance program (CAP) utilizing rate revenues, commission-regulated companies or utilities would likely need FPSC approval.

Noncommission-Regulated Utilities

Florida's municipalities, counties, regional water supply authorities, and special districts are self-regulating and operate under home rule. Fla. Stat. § 153.03 grants counties the power to operate water and wastewater utilities, as well as to fix and collect rates, fees, and other charges for the services and facilities of such utilities. Such rates, fees, and charges are set by the county commission, and *shall* be just and equitable and *may* be based upon the quantity of water consumed and/or upon other factors.[88] The rates and fees set by the county commission are not subject to supervision or regulation by any other commission, board, bureau, or agency of the county or of the state or of any sanitary district or other political subdivision of the state.

Furthermore, Fla. Stat. § 180.13 provides that a city council, or other legislative body of a municipality, may establish just and equitable rates or charges to be paid to the municipality for the use of a water or wastewater utility. State courts have further explained the rate-setting authority of government-owned utili-

85. Additionally, there are systems that are specifically exempted from FPSC regulation under Fla. Stat. § 367.022.
86. Fla. Stat. § 367.081(2)(a)1.
87. Fla. Stat. § 367.091(4).
88. Fla. Stat. § 153.11(c).

ties, holding that "[i]n setting utility rates, governmental agencies enjoy a significant degree of latitude," and that a governmental entity "may charge different rates to different classes of users so long as the classifications are not arbitrary, unreasonable, or discriminatory."[89]

Therefore, if noncommission-regulated utilities implement CAPs funded by rate revenues utilizing different rates to different classes of users, such classifications cannot be "arbitrary, unreasonable, or discriminatory." Because the process for rate setting for counties or municipalities requires community involvement, community-wide initiatives to assist low-income customers could be incorporated into the city or county commission's determination of water and wastewater rates; however, such decisions could then be subject to legal challenges on the basis of whether the rates are indeed discriminatory or unreasonable.

89. I-4 Commerce Ctr., Phase II, Unit I v. Orange Cty., 46 So. 3d 134, 136 (Fla. Dist. Ct. App. 2010) (citing City of Gainesville v. State, 863 So. 2d 138, 147 (Fla. 2003)); see also Cooksey v. Utils. Comm'n, 261 So. 2d 129, 130 (Fla. 1972) (fixing of fair and reasonable rates for utilities services is an incident of authority given to municipalities by Constitution and statutes to provide and maintain those services and courts may not fix rates for those municipal utilities but will determine, on behalf of any aggrieved party, whether there has been a deviation from standard of just and reasonable in fixing rates).

Georgia

Commission-regulated utilities	***N/A***
Noncommission-regulated utilities	⚠

State Population (2016):	10,310,371
Median Annual Household Income (2015):	$49,620
Poverty Rate (2015):	18.4%
Typical Annual Household Water and Wastewater Expenditures (2016):	$796

Georgia has 1,752 community water systems (CWS), of which 1,131 are privately owned and 1,639 serve populations of 10,000 or fewer people.

Georgia has 334 publicly owned treatment works facilities (POTWs), of which 242 treat 1 MGD or less.

259,406 people are served by privately owned CWS; 8,440,824 are served by government-owned CWS; and 5,626,983 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$12.0 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Georgia is one of only six[90] states in which private water and wastewater companies are not regulated by a state utility commission.[91] Additionally, for government-owned utilities, there are few statutory or constitutional limits on rate-setting.

Georgia is a home rule state,[92] and its constitution grants specific "supplementary powers" to counties and municipalities. Specifically, under Ga. Const. art. IX, § II, para. III(a)(6)-(7), counties and municipalities are granted the power to provide water and wastewater services.

While the General Assembly may enact general laws on a local government's supplementary powers, and can regulate, restrict, or limit the exercise of such powers, the General Assembly may not *withdraw* any such powers from the local entities.[93]

Therefore, the statutes and constitution provide broad rate-setting authority and contain no explicit prohibitions for a local entity's ability to utilize different classes of rates. Georgia courts have addressed the issue of the permissibility of a utility setting different rates for residential customers, based on whether customers had a meter, or not. In *Jarrett v. City of Boston*, the Supreme Court of Georgia found that: "[w]here a municipality, as here, owns and operates a waterworks system, it is fundamental that its rates for water must be uniform, in the sense that they must not be unreasonably or unjustly discriminatory as between consumers; but it is not of itself unreasonable or unjust discrimination to furnish water to some consumers at flat rates and to others of the same class at meter rates, even though the rate by the gallon actually used is ordinarily lower to the former than to the latter."[94]

In *Jarrett*, because the basis for the different rates was service related, the Court held "a difference in conditions of service justifies a difference in charge."[95] Therefore, the *Jarrett* case would be distinguishable from a case based on a legal challenge to income-based rate differences.

Because Georgia is a strong home rule state, municipal charters and local ordinances affect a local entity's ability to implement low-income customer assistance programs (CAPs). As an example, the City of Atlanta's Code of Ordinances has express provisions that provide that the rates and charges for city water service and city wastewater service shall be as established by the city, and that water and wastewater rates are waived by 30 percent for domestic customers aged 65 and

90. The others are Michigan, Minnesota, North Dakota, South Dakota, and the District of Columbia.
91. There are a couple narrow exceptions to this. See e.g., Georgia Service Delivery Act, O.C.G.A. Sec. 36-70-24 (2). (Related to rate differentials between customers inside a jurisdiction versus those outside the jurisdiction); another exception is the Metropolitan North Georgia Water Planning District and regional water conservation plan mandating the use of conservation rate structures).
92. Ga. Const. art. IX, § II, para. I(a) (granting counties home rule power), Ga. Const. art. IX, § II, para. II (granting municipalities home rule power).
93. Ga. Const. art. IX, § II, para. III(c).
94. Jarrett v. City of Boston, 74 S.E.2d 549, 531 (Ga. 1953).
95. Jarrett, 74 S.E.2d at 531.

older with a maximum household income of $25,000 or less.[96] This provision explicitly reduces water and wastewater rates for low-income senior citizens, and it gives broad discretion for the city legislative body to set water and wastewater rates without many predetermined parameters. City and county ordinances may vary from jurisdiction to jurisdiction and, therefore, a government-owned utility or private water company interested in implementing a low-income CAP should consult the laws governing the region within which the services would be provided.

One source of concern for government-owned water and wastewater utilities seeking to use rate revenues to fund low-income CAPs is the "Gratuities Clause" in the state constitution. Paragraph VIII of the Georgia Constitution states that "[t]he General Assembly shall not authorize any county, municipality, or other political subdivision of this state, through taxation, contribution, or otherwise, to appropriate money for or to lend its credit to any person or to any nonpublic corporation or association except for purely charitable purposes." Additionally, a gratuity is defined as "something given freely or without recompense; a gift."[97] The argument that customer assistance may be a gratuity or an unconstitutional donation would be most relevant if rate-payer revenue is being used to fund an assistance program.

In terms of private water and wastewater companies, the main governance appears to come from the contracts developed between these private entities and the local governments where they operate. For such private companies, no express prohibition exists against implementing CAPs funded by rate revenues; however, these CAPs could be subject to a legal challenge on the basis of reasonableness.

96. Atlanta City Code § 154-111, § 154-112, § 154-276, & § 154-277.
97. Garden Club of Georgia v. Shackelford, 463 S.E.2d 470, 471 (Ga. 1995).

Hawaii

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

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	1,428,557
Median Annual Household Income (2015):	$69,515
Poverty Rate (2015):	11.2%
Typical Annual Household Water and Wastewater Expenditures (2015):	$1,668

Hawaii has 117 community water systems (CWS), of which 45 are privately owned and 100 serve populations of 10,000 or fewer people.

Hawaii has 22 publicly owned treatment works facilities (POTWs), of which 11 treat 1 MGD or less.

57,105 people are served by privately owned CWS; 1,436,450 are served by government-owned CWS; and 826,376 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$3.1 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Hawaii Public Utility Commission (Hawaii PUC) regulates private water and wastewater companies in Hawaii.[98] The Hawaii PUC does not regulate government-owned water and wastewater utilities.

Under Hawaii Rev. Stat. § 269-16, all commission-regulated rates shall be *just and reasonable* and shall be filed with the Hawaii PUC. Further, a commission-regulated utility's rates must not be departed from except on prior approval of the commission.[99]

Additionally, if a commission-regulated utility wants to implement a rate increase, a hearing may be held where the utility may present testimony to the commission concerning the increase. The commission may then fix the rates to be *just and reasonable*, and "may prohibit rebates and unreasonable discrimination between localities or between users or consumers under substantially similar conditions."[100]

The Supreme Court of Hawaii, as early as 1979, recognized the need to protect low-income and elderly customers from excessive utility rates from "public"[101] utilities. In *Application of Hawaii Electric Light Co.*,[102] the Court held that "[i]n addition to conservation of energy and optimization of the efficient use of facilities and resources, a public utility's rate structure should encourage equitable rates to all its consumers including the poor and the elderly. Reactions to demands that the increasing energy burden borne by the poor and the elderly be alleviated range from sympathy to scorn for 'social rate making.' Our laws, however, recognize that the poor and elderly are deserving of special protection."

In sum, for commission-regulated water and wastewater utilities in Hawaii, there is no express prohibition against implementing a customer assistance program (CAP) funded by rate revenues; however, any such program could be subject to legal challenge on the basis of being discriminatory. Under the Hawaii statutes, however, not all differences in rates are unlawful.[103] Dis-

98. Hawaii Rev. Stat. § 269-6.

99. Balthazar v. Verizon Hawaii, Inc., 123 P.3d 194, 198 (Haw. 2005) (citing to Molokoa Village Dev. Co., Ltd. v. Kauai Elec. Co., Ltd., 593 P.2d 375, 379 (Haw. 1979)). The doctrine that a regulated utility must not depart from the rate it has filed with the Hawaii Public Utility Commission (PUC), absent permission from the PUC, has been termed as the "filed-rate doctrine." The Hawaii Supreme Court has acknowledged that the application of the doctrine "may appear harsh," but that it is necessary to advance the goals of "promoting nondiscrimination and non-justiciability."

100. Hawaii Rev. Stat. § 269-16.

101. Although the Application of Hawaii Elec. Light Co. case dealt with commission-regulated utilities, the court referred to the principles referenced here in terms of "public utilities."

102. Application of Hawaii Elec. Light Co., 594 P.2d 612, 626 (Haw. 1979).

103. See Application of Hawaii Elec. Light Co., 594 P.2d at 614 (holding that in regard to utility rates, it is not all discrimination which is forbidden by law, but only those which are unreasonable).

crimination, to be unlawful, must be "unreasonable."[104]

Noncommission-Regulated Utilities

Under Hawaii Rev. Stat. § 46-1.5(1), counties[105] in Hawaii operate under home rule with respect to certain powers, designated by statute. Specifically, counties are not regulated by the Hawaii PUC, and they are given the power to establish and maintain waterworks and sewer works and to collect rates for water supplied to consumers and for the use of sewers.[106]

Although there is no explicit limitation on rate setting in the state statutes granting counties authority to collect rates for water and wastewater facilities, additional provisions found in the individual county charters may provide such limitations. As an example, the Honolulu Board of Water Supply is established by the Honolulu County Charter. The charter provides that the board shall have the power to fix and adjust *reasonable* rates and charges for the furnishing of water and for water services, as well as for a public hearing process prior to fixing or adjusting rates. The charter explicitly prohibits the board from providing "free water, except as authorized by the state." This prohibition could potentially prevent a county, such as Honolulu, from being able to implement certain CAPs, depending on how a court may interpret what constitutes "free water."[107]

With respect to county utilities, because they are not regulated by the Hawaii PUC, their jurisdiction to set rates is very broad and would be limited only by the requirements laid out in a specific entity's governing charter. Thus, absent a prohibition on engaging in such programs, a county water or wastewater system should be permitted to implement low-income CAPs funded by rate revenues.

104. The Hawaii PUC has specifically found "affordability" to be one element of "reasonableness." In reviewing Power Supply Improvement Plans (PSIPs), for example, the commission stated that "The PSIPs should provide assurance that the overall cost and rate impacts of utility system operations and proposed resource acquisitions are reasonable, economic and affordable." Order 33320, at 41, Docket 2014-0183 (November 4, 2015).
105. Counties are the only constituted government bodies below the state in Hawaii; therefore, there are no separate regulations or statutes governing cities.
106. Hawaii Rev. Stat. § 46-1.5(23).
107. The county charter, however, also provides that "all city powers shall be used to serve and advance the general welfare, health. . .[and] safety. . .of its inhabitants, present and future." To the extent that affordability can be tied to "general welfare, health and safety," municipal water and wastewater rates might reasonably be expected to be found not merely consistent with, but necessary for, advancing these stated objectives.

Idaho

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

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	1,683,140
Median Annual Household Income (2015):	$47,583
Poverty Rate (2015):	15.5%
Typical Annual Household Water and Wastewater Expenditures:	N/R

Idaho has 735 community water systems (CWS), of which 477 are privately owned and 712 serve populations of 10,000 or fewer people.

Idaho has 182 publicly owned treatment works facilities (POTWs), of which 154 treat 1 MGD or less.

443,564 people are served by privately owned CWS; 792,187 are served by government-owned CWS; and 1,136,764 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$2.3 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Idaho Public Utilities Commission (Idaho PUC) regulates private water and wastewater companies in the state. The commission does not regulate government-owned utilities. The Idaho PUC gains its jurisdiction to regulate private utilities from Idaho Code § 61-501, § 61-502, § 61-503, § 61-507, and § 61-520. The Idaho PUC is required to set "just and reasonable" rates.[108] Furthermore, commission-regulated utilities are statutorily required to have "just and reasonable" rules and regulations that "pertain to charges or service."[109] Idaho Code § 61-307 requires commission-regulated utilities to submit any proposed rate changes to the Idaho PUC, and Idaho Code § 61-313 prohibits the same utilities from deviating from the rates in their approved schedules.

Additionally, Idaho Code § 61-315 prohibits utilities from engaging in discrimination or preference, or from "establishing or maintaining any unreasonable differences between localities or classes of service." The Idaho Supreme Court has held that the criteria for differentiation of rates include "the quantity of the utility used, the nature of the use, the time of use, the pattern of use, the differences in the conditions of service, the costs of service, the reasonable efficiency and economy of operation and the actual differences in the situation of the consumers for the furnishing of the service."[110] Ultimately, the commission has the power to determine which factors weigh the heaviest and what constitutes a reasonable rate.[111] However, even with some of these considerations potentially opening the door for assistance programs, in *Rowland v. Kellogg Power & Water Co.*, the Idaho Supreme Court held, "the furnishing of water to (people) without paying the uniform rate charged like users is positively prohibited."[112]

Thus, if commission-regulated utilities in Idaho seek to implement low-income customer assistance programs (CAPs) funded by rate revenues, such programs would be subject to legal challenges based on the aforementioned case law. Such utilities would also need approval from the Idaho PUC in order to implement lower rates for low-income customers.

Noncommission-Regulated Utilities

Government-owned utilities, including municipalities and cities, have the right to operate and maintain rates for water utilities.[113] However, Idaho Const. art. VIII, § 3 requires that municipalities must not incur indebtedness without a two-thirds majority in an election

108. Idaho Code § 61-301.
109. Idaho Code § 61-303.
110. Grindstone Butte Mut. Canal Co. v. Idaho Pub. Utils. Comm'n, 627 P.2d 804, 809 (Idaho 1981).
111. See Idaho Code § 61-315; see also Utah-Idaho Sugar Co. v. Intermountain Gas Co., 597 P.2d 1058, 1067 (Idaho 1979)
112. Rowland v. Kellogg Power & Water Co., 253 P. 840, 842 (Idaho 1927).
113. Idaho Code § 50-323, § 50-330.

held for the purpose of approving the indebtedness. Although this section does not apply to "ordinary and necessary" expenses authorized by the general laws of the state, such ordinary and necessary expenses are usually related to infrastructure improvements[114] or employees of the municipality.[115]

Therefore, although noncommission-regulated utilities appear to have relatively broad rate-setting authority, any low-income CAPs funded by rate revenues would potentially be subject to the two-thirds majority vote requirement outlined above. Furthermore, low-income CAPs would still be subject to legal challenge based on the holding in *Rowland*, as stated above.

114. See City of Challis v. Consent of Governed Caucus, 361 P.3d 485, 487-92 (Idaho 2015); see also Asson v. Burley, 670 P.2d 839, 847-50 (Idaho 1983).
115. See Hanson v. Idaho Falls, 446 P.2d 634, 636 (Idaho 1968).

Illinois

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

Commission-regulated utilities

Noncommission-regulated utilities

State Population (2016):	12,801,539
Median Annual Household Income (2015):	$57,574
Poverty Rate (2015):	14.3%
Typical Annual Household Water and Wastewater Expenditures (2015):	$574

Illinois has 1,740 community water systems (CWS), of which 466 are privately owned and 1,516 serve populations of 10,000 or fewer people.

Illinois has 416 publicly owned treatment works facilities (POTWs), of which 279 treat 1 MGD or less.

1,226,390 people are served by privately owned CWS; 10,775,021 are served by government-owned CWS; and 11,078,471 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$25.4 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Illinois Commerce Commission (ICC) regulates private water and wastewater companies in Illinois.[116] The ICC does not regulate utilities that are owned and/or operated by any political subdivision, public institution of higher education, or municipal corporation of the state.[117]

Under 220 Ill. Comp. Stat. Ann. § 5/4-101, the commission is tasked with the role of supervising private water and wastewater companies, as well as of examining such companies and keeping informed of their rates and charges. Additionally, 220 Ill. Comp. Stat. Ann. § 5/9-101 requires all commission-regulated rates or charges to be "reasonable and just," and 220 Ill. Comp. Stat. Ann. § 5/9-241 prohibits any commission-regulated utility from "making or granting, with respect to rates or charges, any preference or advantage to any corporation or person, or from subjecting any corporation or person to any prejudice or disadvantage." If, after a hearing, the ICC determines that the rates, or charges of, a commission-regulated utility are "unjust, unreasonable, discriminatory, insufficient, preferential or otherwise in violation of any provisions of law," the ICC shall determine just and reasonable rates or charges and fix such rates through an order.[118]

The Illinois Supreme Court has held that a just and reasonable rate for a commission-regulated utility cannot exceed the value of service to the consumer, and it can never be made by compulsion of public authority so low as to amount to confiscation.[119] Moreover, the test to determine whether rate discrimination has occurred is "whether the differential treatment is reasonable and not arbitrary."[120]

For commission-regulated water or wastewater utilities seeking to implement customer assistance programs (CAPs) funded by rate revenues, the language prohibiting such utilities from granting any preference or advantage to any person, and allowing the ICC to change rates that are considered to be discriminatory, insufficient, or preferential, likely holds the greatest potential for legal challenges.

Noncommission-Regulated Utilities

Municipalities[121] in Illinois operate under home rule,

116. 220 Ill. Comp. Stat. § 5/4-101.
117. 220 Ill. Comp. Stat. Ann. § 5/3-105.
118. 220 Ill. Comp. Stat. Ann. § 5/9-250.
119. Iowa-Illinois Gas and Elec. Co. v. Illinois Commerce Comm'n, 167 N.E.2d 414, 419 (Ill. 1960).
120. City of Chicago v. Illinois Commerce Comm'n, 666 N.E.2d 1212, 1216 (Ill. App. Ct. 1996).

121. Municipality is defined to include a city, village, or incorporated town, but does not include a township, town when used as the equivalent of a township, incorporated town that has superseded a civil township, county, school district, park district, sanitary district, or any other similar governmental district. 65 Ill. Comp. Stat. Ann. § 5/1-1-2.

and their utilities are not regulated by the ICC.[122] For municipalities that elect by ordinance to operate a *joint* waterworks and sewerage system, 65 Ill. Comp. Stat. Ann. § 5/11-139-8 provides that such municipalities may charge customers a reasonable compensation for the use and service of the combined systems. Additionally, the Illinois courts have held that when a municipality acts as proprietor, such as in the case of selling water to suburbs, the water rates must be reasonable.[123] Townships are granted authority to construct and operate a waterworks or wastewater utility under 60 Ill. Comp. Stat. Ann. § 1/205-10. With respect to rates, townships, whose utilities also are not regulated by the ICC, are only required to have rates that are sufficient to meet certain costs. They are not statutorily limited as to what type of rate structure they may use, nor are there any limiting terms that require that rates be nondiscriminatory or reasonable.[124]

However, the court in *Austin View Civic Ass'n v. City of Palos Heights* held that "[t]hough there is no statute that prevents municipal corporations that operate public utilities from acting in an unreasonably discriminatory manner, there is still the common law duty that prevents them from doing so."[125]

Additionally, in *Village of Niles v. City of Chicago*, a case challenging noncommission-regulated utility rates, the Illinois appellate court held that not all discrimination is prohibited. Rather, the court stated "when the reasonableness of the rates is challenged . . . the challengers must demonstrate convincingly that they are being charged a discriminatorily high rate or one that exceeds the cost of service to the point of unreasonableness."[126] In *Village of Niles*, the court specifically addressed a challenge to the city's provision of "religious, educational, and municipal purposes within the city" and found that the plaintiffs did not prove that these practices resulted in rates that were unreasonable or excessive to them.[127] The court further concluded that "if the rates charged to plaintiffs are not excessive, there is no unreasonable discrimination."[128]

Therefore, for noncommission-regulated utilities, the jurisdiction to set rates is broad but limited by the requirements that any rate structure used to implement a low-income CAP cannot result in rates that are "excessive" or "unreasonably discriminatory." Additionally, as is the case in other home rule states, limitations or enabling provisions in individual municipal charters could affect an entity's ability to implement such programs.

122. Ill. Const. art. 7, § 6. The Illinois Constitution provides that a county which has a chief executive officer elected by the electors of the county, and any municipality which has a population of more than 25,000 are home rule units, which may exercise any power and perform any function pertaining to its government and affairs. Many smaller communities, not subject to this provision, and not regulated by the Illinois Commerce Commission, also operate municipal-owned water and/or sewerage systems. Such communities set rates by vote of the elected body.
123. Vill. of Niles v. City of Chicago, 558 N.E.2d 1325, 1331 (Ill. App. Ct. 1980).
124. 60 Ill. Comp. Stat. Ann. § 1/205-70.
125. Austin View Civic Ass'n v. City of Palos Heights, 405 N.E.2d 1256, 1263 (Ill. App. Ct. 1980).
126. Vill. of Niles, 558 N.E.2d at 1341.
127. Id. at 1342. The court technically found that the plaintiffs did not have standing to challenge the free water, because "the city's cost-of service study allocated the costs of free water and unpaid water charges on delinquent accounts entirely to in-city users." However, the court expounded to assert that even if the plaintiffs had standing, they did not prove that the provision of the services resulted in excessive rates to them.
128. Id. at 1342

Indiana

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

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	6,633,053
Median Annual Household Income (2015):	$49,255
Poverty Rate (2015):	15.4%
Typical Annual Household Water and Wastewater Expenditures (2015):	$701

Indiana has 789 community water systems (CWS), of which 304 are privately owned and 703 serve populations of 10,000 or fewer people.

Indiana has 479 publicly owned treatment works facilities (POTWs), of which 364 treat 1 MGD or less.

926,020 people are served by privately owned CWS; 3,839,215 are served by government-owned CWS; and 4,261,915 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$13.5 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Indiana Utility Regulatory Commission (IURC) regulates rates, financing, bonding, environmental compliance plans, and service territories of private water and wastewater companies, as well as government-owned water utilities.[129] IURC does not regulate government-owned wastewater utilities. Additionally, municipal-owned utilities, not-for-profit organizations, and cooperative utilities have the ability to opt out of IURC regulation through a vote of the local government or a majority vote by the citizens of the municipality.

Several state statutes directly address the rate setting practices of IURC-regulated utilities. Ind. Code § 8-1-2-4 requires that the rates of regulated utilities must be "reasonable and just," and "every unjust or unreasonable charge…is prohibited and declared unlawful." Ind. Code § 8-1-2-6 further mandates that the rates of commission-regulated utilities shall not be "unjust, unreasonable, insufficient, or unjustly discriminatory, or…preferential." Ind. Code § 8-1-2-103 adds that a commission-regulated utility may not "charge, demand, collect, or receive from any person a greater or less compensation for any service…than it charges, demands, collects or receives from any other person for a like and contemporaneous service." Finally, Ind. Code § 8-1-2-105a maintains that no regulated "utility may make or give any undue or unreasonable preference or advantage to any person."

In *Citizens Action Coalition of Indiana, Inc. v. Public Service Co. of Indiana*,[130] an Indiana court determined that a below-cost lifeline rate for customers in specific income or demographic groups violated state statutes. Specifically, the court held that a rate structure that charged customers different rates for the same service was in violation of Ind. Code § 8-1-2-103. In the same case, however, the court acknowledged that "[f]rom the evidence presented, a reasonable mind could conclude that a program of direct assistance[131] is more effective and equitable than lifeline rates in providing help to the needy."[132]

In sum, rate-funded low-income customer assistance programs (CAPs) implemented by commission-regulated utilities could be challenged on the basis that the rates used to fund the programs are unreasonable, discriminatory, or preferential. Additionally, the greatest potential for legal challenges against such programs would likely arise from the prohibition against charging higher or lower rates for any service than a utility

129. The government-owned utilities that the IURC regulates include municipal-owned, not-for-profit, and cooperative utilities and water conservancy districts.
130. Citizens Action Coalition of Indiana, Inc. v. Pub. Service Co. of Indiana, 450 N.E.2d 98, 103-04 (Ind. App. 1983).
131. In responding to the IURC's argument that a direct assistance program would be more effective than the lifeline rate, the plaintiff, Citizens Action Coalition, mentions critique of an existing Indiana direct assistance program, Project S.A.F.E., which must have been in place at the time of the ruling.
132. Id. at 103.

charges for a like and contemporaneous service, as well as from the prohibition against giving any undue or unreasonable preference or advantage to customers.

At least one IURC-regulated utility has developed an affordability program that relies on alternative revenue streams (i.e., does not rely on rate revenues). Marion Utilities, a regulated municipal utility, created the Help to Our Community (H2O Community) program in 2013, in partnership with the Salvation Army and Via Credit Union. The H2O Community program is a *temporary assistance* program that provides financial assistance to low-income families and individuals who struggle to pay water bills. Income-eligible households can receive up to $100 per year and can participate in financial education classes through Via Credit Union. H2O Community raises money through community events to fund the program.

Noncommission-regulated Utilities

For noncommission-regulated, government-owned utilities, and for municipal-owned wastewater utilities, city or town councils typically serve as the governing boards that regulate and approve rates. With respect to these utilities, Ind. Code § 36-9-25-11.3 gives a public wastewater district (i.e., a wastewater utility that serves multiple municipalities) the option of having rates adopted by ordinance in each municipality served or asking the IURC to approve the rates. When the IURC approves the rate, the commission must find the rates to be "nondiscriminatory, reasonable and just" and "sufficient to enable the district to furnish reasonably adequate services and facilities." Those same standards do not appear to apply when rates are established by municipal ordinance. Ind. Code § 36-9-25-12 provides factors to be considered by municipal-owned wastewater utilities in the determination of rates, stating that "the fees for the treatment and disposal of sewage may be based on: (1) a flat charge for each sewer connection; (2) the amount of water used on the premises; (3) the number and size of water outlets on the premises; (4) the amount, strength, or character of sewage discharged into the sewers; (5) the size of sewer connections; or (6) any combination of these factors or other factors that the board determines necessary in order to establish just and equitable rates and charges."

Municipalities in Indiana are governed under general law, and their authority is limited to the powers expressly granted to them by the state legislature. Thus, because Indiana state statutes do not expressly prohibit or allow municipal-owned utilities to implement rate-funded low-income CAPs, noncommission-regulated municipal-owned utilities may not be able to implement such programs. In addition, low-income CAPs funded by rate revenues could potentially face legal challenges on the basis of discrimination, reasonableness, and equitability.

Iowa

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

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	3,134,693
Median Annual Household Income (2015):	$53,183
Poverty Rate (2015):	12.5%
Typical Annual Household Water and Wastewater Expenditures (2015):	$388

Iowa has 1,092 community water systems (CWS), of which 324 are privately owned and 1,046 serve populations of 10,000 or fewer people.

Iowa has 768 publicly owned treatment works facilities (POTWs), of which 702 treat 1 MGD or less.

469,066 people are served by privately owned CWS; 2,316,202 are served by government-owned CWS; and 2,592,369 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$8.3 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Iowa Utilities Board (IUB) regulates the rates and services of private water companies serving more than 2,000 customers and private wastewater companies.[133] The IUB does not regulate government-owned water or wastewater utilities.

Pursuant to Iowa Code § 476.3 and § 476.8, the rates of commission-regulated utilities must be reasonable, just, and nondiscriminatory.[134] Iowa Code § 476.18 lists the costs that commission-regulated utilities cannot recover through rates and charges: lobbying costs, advertising costs, and certain legal costs. Additionally, Iowa Code § 476.5 states that no regulated utility "shall make or grant any unreasonable preferences or advantages as to rates or services to any person or subject any person to any unreasonable prejudice or disadvantage." Finally, under Iowa Code § 476.5, commission-regulated utilities cannot "directly or indirectly charge a greater or less compensation for its services than that prescribed in its tariffs."

With respect to commission-regulated utilities, low-income customer assistance programs (CAPs) funded by rate revenues would likely be subject to IUB interpretation, or subsequent legal challenge, as to whether they constitute an unreasonable prejudice or advantage or are unjustly discriminatory. In addition, such programs would need to be approved by the IUB as part of the rate approval process.[135]

Noncommission-Regulated Utilities

Many municipalities in Iowa operate under home rule. Government-owned water and wastewater utilities[136] are generally governed by local city councils, a county board of supervisors, or by a board of trustees. Athough Iowa Code § 384.81 provides municipalities with authority to establish rates for city utility systems by ordinance of the city council, Iowa Code § 388.6 prohibits a city utility from providing service at a *discriminatory* rate, except to the city itself.[137] With respect to wastewater districts, Iowa Code § 358.20 provides that rates must be "just and equitable" and, further, that rates shall be "in proportion to the services rendered and the cost of the services."

133. According to the IUB website, only one private water company currently meets this criteria: the Iowa-American Water Company, which serves approximately 63,000 customers. Additionally, the IUB only gained regulatory authority over private wastewater companies beginning in March 2016, however, no such entities currently operate in Iowa.
134. Iowa Code § 476.8 also states that "in determining reasonable and just rates, the board [IUB] shall consider all factors relating to value and shall not be bound by rate base decisions or rulings made prior to the adoption of this chapter."
135. See Iowa Code § 476.5.
136. Including municipal- and county-owned water and/or sanitary districts, rural water districts, and cooperative water associations.
137. Iowa Code § 384.91 provides that a city utility may provide free or reduced water to the city itself.

Despite these potentially limiting clauses, in *State v. City of Iowa City*,[138] the Supreme Court of Iowa confirmed that government-owned utilities have broad authority to implement reasonable rates and, further, that the cost of supplying municipal wastewater services is not the only factor that a city may consider in setting rates. In reviewing the legality of a flat per unit rate for wastewater services, which was based on water use, the court stated that "the rates charged by a municipal utility must be fair, reasonable, just, uniform and nondiscriminatory, and the same rules in regard to the reasonableness of private utility companies apply."[139] However, the court also agreed with the general rule that "reasonable discretion must abide in the officers whose duty it is to fix rates. Their determination should not be disturbed if there is any reasonable basis for that determination, or unless it is proved that the rates are excessive and the action of the rate-fixing officers illegal and arbitrary. . . . A rate lawfully established is assumed to be reasonable in the absence of a showing to the contrary, or a showing of mismanagement, fraud, or bad faith, or that the rate is capricious, arbitrary, or unreasonable."[140]

In summary, local government entities in Iowa have relatively broad authority to establish utility rates; however, potentially limiting language included in state statutes may provide a basis for legal challenges of low-income CAPs funded by rate revenues.[141] At least one government-owned utility in Iowa, the City of Cedar Rapids, currently offers a bill discount program for elderly and disabled customers who meet certain income requirements.

138. State v. City of Iowa City, 490 N.W.2d 825, 831-33 (Iowa 1992).
139. Id. at 829.
140. Id. Additionally, the court held that "[t]he burden of proof is on the party claiming unreasonableness or discrimination. A city has no duty to justify or explain its actions in setting rates until the party contesting their validity shows their invalidity by competent evidence." Id.
141. However, based on findings from State v. City of Iowa City, the rate determinations of government-owned utilities can only be overturned under specific circumstances.

Kansas

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

Commission-Regulated Utilities GO

Noncommission-regulated utilities !

State Population (2016):	2,907,289
Median Annual Household Income (2015):	$52,205
Poverty Rate (2015):	13.6%
Typical Annual Household Water and Wastewater Expenditures (2015):	$595

Kansas has 877 community water systems (CWS), of which 60 are privately owned and 844 serve populations of 10,000 or fewer people.

Kansas has 624 publicly owned treatment works facilities (POTWs), of which 576 treat 1 MGD or less.

75,242 people are served by privately owned CWS; 2,617,765 are served by government-owned CWS; and 2,226,186 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$7.9 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Kansas Corporation Commission (KCC) currently regulates the rates and service of private water companies in the state. KCC does not regulate government-owned or nonprofit water and wastewater utilities.[142] Pursuant to Kan. Stat. Ann. § 66-1,230, commission-regulated water utilities are considered "miscellaneous" utilities for the purposes of KCC regulation. Kan. Stat. Ann. § 66-1,232 mandates that every miscellaneous utility shall be required to establish "just and reasonable" rates. Under the same statute, "every unjust or unreasonably discriminatory or unduly preferential classification, rate, joint rate, fare, toll, charge or exaction is prohibited, unlawful and void."[143] Kan. Stat. Ann. § 66-109 further prohibits commission-regulated utilities from charging "a greater or less compensation for the same class of service…than is specified in the printed schedules or classifications." However, this statute also states that commission-regulated water utilities may charge different rates "by agreement with the customer, in cases of *charity*, *emergency*, festivity, or public entertainment."[144]

Thus, this allowance of the use of different rates in cases of "charity" or "emergency" would appear to provide room for commission-regulated utilities to implement low-income customer assistance programs (CAPs) funded by rate revenues.[145]

Noncommission-Regulated Utilities

Several state statutes authorize and regulate rate setting by government-owned[146] water and wastewater utilities. In general, these statutes provide authority to local governing bodies to establish rates and charges, stipulating only that rates be just, reasonable, and sufficient to cover full cost of service. For example, with respect to municipal-owned combined water and wastewater utilities, Kan. Stat. Ann. § 12-860 states that "the governing body of the city shall establish rates and charges for water and for the use of the sewage disposal system" and that "the amount of such rates and charges shall be reasonable and sufficient to cover the cost of operation, repairs, maintenance, extension and enlargement of the water and sewage system and improvements thereof…" Kansas cities and counties operate under home rule per Kan. Const. art. XII, § 5.[147] In 2004, the Kansas Supreme Court reaffirmed the broad home rule powers of cities, stating that such powers "shall be liberally construed to give cities the

142. Pursuant to Kan. Stat. Ann. § 66-104e, cities may relinquish their utility regulation authorities to the Kansas Corporation Commission (KCC).
143. Kan. Stat. Ann. § 66-1,232.
144. Kan. Stat. Ann. § 66-109.
145. However, programs incorporated into a commission-regulated utility's rate schedule could be subject to KCC review and approval to ensure that discounts or benefits for low-income customers are not unreasonably discriminatory or unduly preferential.
146. Government-owned utilities include those owned by municipalities of different classes and counties.
147. Additionally, under Kan. Stat. Ann. § 19-101 et. seq., cities and counties are permitted to operate pursuant to local charters.

largest possible measure of self-government."[148]

Case law suggests that Kansas does not prohibit government-owned utilities from establishing different rate plans for different classes of users *as long as* there is a rational basis for such differences. In *Shawnee Hills Mobile Homes, Inc. v. Rural Water District*,[149] the Kansas Supreme Court recognized that "discrimination is a relative term and that absolute equality is seldom, if ever, fully realized" in holding that a higher per volume rate charged a mobile home park compared to individual homeowners was neither unreasonable nor discriminatory. However, dictum found in *Eudora Development Co. of Kansas v. City of Eudora*,[150] indicates that differences in rates could be subject to legal challenge if they are not based on differences in service. Specifically, the court found that "neither the common law nor the statutes forbid reasonable classification of rates or discrimination so long as it is not unjust, but is reasonable in view of substantial differences in services or in conditions of service."[151]

Government-owned water utilities in Kansas appear to have sufficient local home rule authority to offer low-income CAPs funded by customer revenues. However, differences in rates may be subject to legal challenge if they are not based on differences in service. In addition, in Kansas, government-owned utilities are subject to federal and state equal protection and public purpose requirements [152] To meet equal protection requirements, rate classifications cannot be arbitrary and capricious, and differences must be reasonably related to a legitimate governmental interest.[153] To meet public purpose requirements, appropriations of public money for private individuals must be for a public purpose and promote the public welfare.[154]

148. State ex. rel. Kline v. Unified Bd. Of Comm'rs of Unified Gov't of Wyandotte County/Kansas City, 85 P.3d 1237, 1243 (Kan. 2004)
149. Shawnee Hills Mobile Homes, Inc. v. Rural Water District, 537 P.2d 210, 212 (Kan. 1975).
150. Eudora Dev. Co. of Kansas v. City of Eudora, 78 P.3d 437, 438 (Kan. 2003). "Water rates set by a municipality are presumed to be valid and reasonable until the contrary has been established; burden of overcoming the presumption of validity and reasonableness rests with the challenging party." Id.
151. Id.
152. As an example, Johnson County Wastewater works with Johnson County Department of Human Services to offer bill assistance to low-income customers to promote public health and safety. The Johnson County Utility Assistance program is funded by the city and county, private donations, and utility funds.
153. Eudora Dev. Co. of Kansas, 78 P.3d at 440-41.
154. Duckworth v. City of Kansas City, 758 P.2d 201, 201 (Kan. 1988).

Kentucky

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

Commission-regulated utilities

Noncommission-regulated utilities

State Population (2016):	4,436,974
Median Annual Household Income (2015):	$43,740
Poverty Rate (2015):	18.9%
Typical Annual Household Water and Wastewater Expenditures (2015):	$596

Kentucky has 389 community water systems (CWS), of which 29 are privately owned and 281 serve populations of 10,000 or fewer people.

Kentucky has 260 publicly owned treatment works facilities (POTWs), of which 195 treat 1 MGD or less.

1,515,148 people are served by privately owned CWS; 3,095,437 are served by government-owned CWS; and 2,872,413 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$12.4 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Kentucky Public Service Commission (KPSC) regulates private water and wastewater companies.[155] The KPSC gains its jurisdiction over such utilities from Ky. Rev. Stat. Ann. § 278.040. The KPSC does not regulate government-owned utilities.[156]

Under Ky. Rev. Stat. Ann. § 278.030, every commission-regulated utility may demand, collect, and receive fair, just, and reasonable rates. Additionally, under the same provision, a utility may utilize "suitable and reasonable classifications of its service, patrons and rates."[157] Further, Ky. Rev. Stat. Ann. § 278.170 prohibits utilities from granting unreasonable preferences or advantages to any person or from establishing or maintaining an unreasonable difference between "localities or between classes of service for doing a like and contemporaneous service under the same or substantially the same conditions."

In terms of discounted rates, Ky. Rev. Stat. Ann. § 278.170 gives commission-regulated utilities permission to grant free or reduced rate service to the utility's officers, agents, or employees or to the United States, charitable institutions, and persons engaged in charitable and eleemosynary[158] work. Additionally, utilities may grant free or reduced rate service "for the purpose of providing relief in case of flood, epidemic, pestilence, or other calamity."[159]

Although the statute specifies certain individuals and institutions that may receive free or reduced rate service, the Kentucky Supreme Court has found that such inclusion is not to the exclusion of other entities. In *Public Service Commission of Kentucky v. Commonwealth*,[160] a case dealing with a utility's ability to offer economic development rates to certain businesses, the court held that "while utilities are statutorily entitled to offer reduced rates to the persons and entities identified in [Ky. Rev. Stat. Ann.] § 278.170(2) and (3), those utilities may also offer other customers reduced rates subject to [KPSC] approval and compliance with general statutory guidelines regarding reasonableness."

Thus, for commission-regulated water and wastewater utilities, it is possible they could implement a low-income customer assistance program (CAP) funded by rate revenues under the statute allowing such utilities

155. The Kentucky Public Service Commission also regulates water districts and commissions.
156. Ky. Rev. Stat. Ann. § 278.010. This includes cities and regional wastewater commissions.
157. Ky. Rev. Stat. Ann. § 278.030. Under Ky. Rev. Stat. Ann. § 278.030, such classifications may take into account "the nature of the use, the quality used, the quantity used, the time when used, the purpose for which used, and any other reasonable consideration."
158. Eleemosynary is an adjective that describes things related to charitable giving.
159. Ky. Rev. Stat. Ann. § 278.170.
160. Pub. Serv. Comm'n v. Commonwealth, 320 S.W.3d 660, 667 (Ky. 2010).

to provide free or reduced rates, particularly in the case of "calamity," or by relying on the provisions stating that charitable organizations and specific individuals may receive assistance. Additionally, case law supports the notion that commission-regulated utilities can offer various forms of assistance to low-income individuals, subject to commission approval and reasonableness requirements.

Noncommission-Regulated Utilities

Under Ky. Rev. Stat. Ann. § 96.170, the legislative body of any city may, by ordinance, provide water to the city and its inhabitants and fix prices to private consumers and customers. The Kentucky court has held that "[d]iscrimination in rates or services is not permitted by municipalities any more than private utilities."[161] But, "a distinction may be made between different customers or classes of customers on account of location, amount of consumption or such other *material conditions* which distinguish them from each other or from other classes."[162]

It therefore seems possible that noncommission-regulated water and wastewater utilities could implement low-income CAPs funded by rate revenues. Although such programs could be challenged as discriminatory, it is possible that a person's income could be established as a "material condition" that distinguishes some utility customers from others.

161. Louisville & Jefferson County Metro. Sewer Dist. v. Joseph E. Seagram & Sons, Inc., 211 S.W.2d 122, 126 (Ky. Ct. App. 1948).
162. Id.

Louisiana

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

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	4,681,666
Median Annual Household Income (2015):	$45,047
Poverty Rate (2015):	19.8%
Typical Annual Household Water and Wastewater Expenditures (2015):	$516

Louisiana has 992 community water systems (CWS), of which 442 are privately owned and 922 serve populations of 10,000 or fewer people.

Louisiana has 269 publicly owned treatment works facilities (POTWs), of which 199 treat 1 MGD or less.

1,127,850 people are served by privately owned CWS; 3,683,561 are served by government-owned CWS; and 3,470,186 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$9.6 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Louisiana Public Service Commission (LPSC) regulates private water and wastewater companies, including utilities owned by corporations and non-profit organizations. Per La. Const. art. IV, § 21, LPSC does not regulate government-owned[163] utilities.

With respect to LPSC-regulated utilities, several state statutes refer to the LPSC's authority to fix "reasonable and just charges" for water and wastewater services.[164] For example, La. Stat. Ann. § 45:1176 requires the LPSC to "investigate the reasonableness and justness of all contracts, agreements and charges entered into or paid by such public utilities with or to other persons."

In *State ex rel. Guste v. Council of City of New Orleans*,[165] the court held that regulation of utilities under LPSC jurisdiction includes "prevention of unreasonable discrimination by the utility among its customers through various business practices (e.g., rebates, preferential charges, and service inequalities.)" Additionally, the court held that "[w]hile public utilities may reasonably distinguish among classes of customers by charging varying rates for varying services, any discrimination among customers as to the rate charged for the same service is uniformly considered impermissible."[166] Finally, the court acknowledged that "[u]nlike many other states, Louisiana has no statute of statewide application that proscribes unreasonable discrimination by a utility in rate-makeing [sic]. However, the courts of this state have jurisprudentially adopted the generally prevailing rule that a utility's rate structure must be nondiscriminatory."[167]

Thus, although state statutes do not explicitly prohibit commission-regulated utilities from implementing low-income customer assistance programs (CAPs) funded by customer revenues, or require that rates be nondiscriminatory, the court's holding, laid out above, suggests that commission-regulated rates *must* be nondiscriminatory. Such a holding creates the potential for legal challenges against rate-funded CAPs.

Noncommission-Regulated Utilities

La. Const. art. VI, § 5 enables parishes and municipalities to adopt home rule charters that grant them the authority to operate noncommission-regulated water and wastewater utilities.[168] Additionally, pursuant to La. Stat. Ann. § 33:4163, parishes and municipalities

163. This includes one or more subdivisions of parishes, cities, or towns.
164. La. Stat. Ann. § 45:1163, § 45:1176, § 45:1203.
165. State ex rel. Guste v. Council of City of New Orleans, 309 So. 2d 290, 294 (La. 1975).
166. Id.
167. Id.
168. In Louisiana, 23 of 64 parishes (similar to counties) in the state operate under a home rule charter; 31 of the state's 303 municipalities have home rule authority (this includes the 10 largest cities, many of which operate as consolidated parish-city governments).

may sell and distribute water and wastewater services and may charge rates for such services. In *Johnson v. Mayor and City Commission of City of Natchitoches*, the court held that "[r]ates of municipally operated public utilities must be equal, uniform, and not discriminatory, applying to all classes, businesses, and individuals alike."[169]

The court further elaborated on the requirement that rates be non-discriminatory in *Hicks v. City of Monroe Utilities Commission*, a case in which customers of a municipal utility living outside of municipal limits brought a suit to annul a rate classification as unreasonable, arbitrary, and discriminatory.[170] The dispute stemmed from a rate classification that established one water rate for suburban customers who were using electricity supplied by the municipal utility and a higher rate for suburban customers who did not use electricity supplied by this utility. The plaintiffs' contention that the rate classification was unreasonable and discriminatory was ultimately upheld.[171] Importantly, the court found that a "utility may without being guilty of unlawful discrimination classify its customers on any reasonable basis and make separate rates for each class, but that such utility, whether privately or municipally operated, may charge but one rate for a particular service and any discrimination between customers as to the rate charged for the *same service under like circumstances* is improper."[172]

Therefore, a government-owned water or wastewater utility seeking to implement a low-income CAP funded by rate revenues could potentially face legal challenges if such a program results in rates that are deemed to be discriminatory, not equal, or not uniform.[173]

169. Johnson v. Mayor and City Comm'n of City of Natchitoches, 129 So. 433, 436 (La. Ct. App. 1930).
170. Hicks v. City of Monroe Utilities Commission, 112 So. 2d 635, 637-38 (La. 1959).
171. Id. at 653.
172. Id. at 652.
173. Despite the limitations laid out in the statutes and case law, the Sewerage and Water Board of New Orleans offers a CAP funded by customer revenues. The ability of the Water Board to provide this program may be because the city of New Orleans has home rule authority to govern municipal affairs. Specifically, the board offers the Water Help and Plumbing Assistance programs, which assist elderly, disabled, and economically disadvantaged customers in paying their water bills and making minor plumbing repairs. The program combines customer contributions with Sewerage and Water Board matching funds to create a fund administered by a local non-profit organization. The Water Help Program contributes up to $200 annually to customers in need by way of a credit to their account, while the Plumbing Assistance Program pays up to $250 annually to the licensed master plumber who is authorized by the Sewerage and Water Board to perform minor plumbing repairs at a customer's home.

Maine

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

Commission-Regulated Utilities

The Maine Public Utilities Commission (Maine PUC) regulates the rates and services of all public utilities to ensure that all "citizens have access to safe and reliable utility services at rates that are just and reasonable for all ratepayers." The Maine PUC regulates both investor- and consumer-owned water utilities,[174] but does not regulate wastewater utilities.

With respect to commission-regulated utilities, Me. Stat. tit. 35-A, § 301 requires that every rate or charge be "just and reasonable."[175] The same statute also stipulates that a commission-regulated utility shall provide revenue sufficient "to perform its public service and to attract necessary capital on just and reasonable terms."[176] The inclusion of "public service" seems to suggest that commission-regulated utilities have the ability to establish rates that cover more than strictly the cost of service.

Under Me. Stat. tit. 35-A, § 702, it is unlawful for a commission-regulated utility "to give any undue or unreasonable preference, advantage, prejudice or disadvantage to a particular person." However, Me. Stat. tit. 35-A, § 703 specifically allows such utilities to provide "free and special rates" under certain circumstances, including for charitable or benevolent purposes. However, the statute further indicates that any special rate or discount would need approval from the Maine PUC as part of a utility's rate schedule.[177]

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	1,331,479
Median Annual Household Income (2015):	$49,331
Poverty Rate (2015):	13.9%
Typical Annual Household Water and Wastewater Expenditures (2016):	$1,348

Maine has 375 community water systems (CWS), of which 235 are privately owned and 362 serve populations of 10,000 or fewer people.

Maine has 135 publicly owned treatment works facilities (POTWs), of which 103 treat 1 MGD or less.

111,630 people are served by privately owned CWS; 557,944 are served by government-owned CWS; and 623,598 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$2.1 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

State statutes provide separate rate setting regulations for water districts and water departments, which are consumer-owned utilities. Specifically, Me. Stat. tit. 35-A, § 6105-3 stipulates that the governing body of such utilities may charge higher rates within sections of its service area where costs exceed the average, but those higher rates must apply to all customers within the section. Me. Stat. tit. 35-A, § 6105-3A allows for a reduction in impact or connection fees for newly

174. In Maine, "investor-owned" water utilities are privately held entities that provide water service for profit. "Consumer-owned" water utilities are not operated for profit and are organized as water districts, quasi-municipal entities created by the state legislature, or water departments operated by municipal governments. Water districts are quasi-municipal entities created by the state legislature through special acts and, in many cases, serve customers within multiple municipalities. Water departments are municipal divisions and generally provide service only to their particular municipality.

175. See Cent. Maine Power Co. v. Pub. Utils. Comm'n, 382 A.2d 302, 326-28 (Me. 1978) (holding that the concept of a "just and reasonable" rate for a utility does not signify particular single rate as the only lawful rate but rather encompasses a range within which rates may be deemed just and reasonable both in terms of revenue level and rate design; it is within sound discretion of the Maine PUC to fix the exact level and design within that range).

176. Me. Stat. tit. 35-A, § 301. Me. Stat. tit. 35-A, § 6105 also requires the governing body to provide the rate schedule and any changes to the rate schedule to the Maine PUC.

177. Specifically, the statute provides that "no person may knowingly solicit, accept or receive any rebate, discount or discrimination in respect to any service rendered, or to be rendered by a public utility, or for any related service where the service is rendered free or at a rate less than named in the schedules in force, or where a service or advantage is received other than is specified." Me. Stat. tit. 35-A, § 703.

constructed affordable housing. Finally, Me. Stat. tit. 35-A, § 6105-4 lists seven purposes for which a governing body of a consumer-owned utility may establish rates and prohibits the use of revenues for any other purpose. None of the allowable purposes includes providing subsidies to low-income or other classes of customers.

Based on these statutes, it appears that consumer-owned water utilities would not be able to provide low-income customer assistance programs (CAPs) funded by customer revenues.[178] However, the Maine PUC has indicated that Me. Stat. tit. 35-A, §703, which allows public utilities to provide "free and special rates" for charitable or benevolent purposes, can be interpreted as applicable to all commission-regulated utilities, including both investor- and consumer-owned water utilities.[179]

Noncommission-Regulated Utilities

Government-owned wastewater utilities, referred to in Maine as sanitary districts, are not regulated by the Maine PUC. Under Me. Stat. tit. 38, § 1202, the same language as is found in the statutes that provide rate setting standards for water districts or water departments applies to sanitary districts. Therefore, given the limiting language related to "allowable purposes" for which sanitary districts can generate revenues, as well as the requirement that the rates of these utilities be uniform, it appears that these utilities are likely not able to provide low-income CAPs funded by customer revenues.

178. With respect to low-income assistance, Me. Stat. tit. 35-A, § 6111-C authorizes consumer-owned water utilities that also supply wastewater services to shut-off water service to customers who do not pay their wastewater bill. However, this statute requires consumer-owned water utilities to send the customer information on "available assistance programs, including programs that offer assistance in paying for wastewater or water service, programs that offer assistance in paying for other utility services or in paying for heating fuel or similar assistance programs that could provide sufficient support to the customer to allow the customer to pay the utility's rates, fees or charges for sewer service" to customers to whom the utility sends disconnection notices.
179. Pers. comm. with Mitch Tannenbaum, General Counsel, Maine PUC (December 13, 2016).

Maryland

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

Commission-regulated utilities 

Noncommission-regulated utilities 

State Population (2016):	6,016,447
Median Annual Household Income (2015):	$74,551
Poverty Rate (2015):	10.0%
Typical Annual Household Water and Wastewater Expenditures (2015):	$633

Maryland has 476 community water systems (CWS), of which 245 are privately owned and 445 serve populations of 10,000 or fewer people.

Maryland has 174 publicly owned treatment works facilities (POTWs), of which 137 treat 1 MGD or less.

93,510 people are served by privately owned CWS; 5,210,725 are served by government-owned CWS; and 3,116,383 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$13.6 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Maryland Public Service Commission (MPSC) regulates how rates are set and approves rate modifications for private water and wastewater companies.[180] The MPSC does not regulate government-owned utilities. Md. Code Ann., Pub. Util. § 4-201 mandates that a commission-regulated utility "shall charge just and reasonable rates for the regulated services that it renders." Md. Code Ann., Pub. Util. § 4-101 defines "just and reasonable rates" as rates that provide a "reasonable return on the fair value of the public service." However, Md. Code Ann., Pub. Util. § 4-503 expressly prohibits rate discrimination for commission-regulated utilities, stating that "for any service rendered or commodity furnished," such a utility "may not directly or indirectly, by any means, including special rates, rebates, drawbacks, or refunds… charge, demand, or receive from a person compensation that is greater or less than from any other person under substantially similar circumstances." MSPC has interpreted this language to mean that commission-regulated utilities cannot provide special rates or benefits to low-income customers if they are subsidized by other customers.[181]

Thus, low-income customer assistance programs (CAPs) funded by rate revenues currently appear to be prohibited for commission-regulated utilities because of how MPSC interprets the statutory prohibitions listed above.

Noncommission-Regulated Utilities

Government-owned water and wastewater utilities, including general- and special-purpose government utilities, are not regulated by the MPSC and appear to have discretion regarding rate structures and rate setting. All municipalities in the state are incorporated by charters, which provide limited local authority subject to state statutes. With respect to municipal services, Md. Code Ann., Local Gov't § 5-205 requires only that municipalities establish and collect fees and charges that are "reasonable." Most counties in the state, as well as the city of Baltimore[182] operate under home rule charter or code and, as such, have the authority to implement low-income CAPs subject to any limitations that may be present in individual charters.[183]

Although most government-owned utilities seem to have broad authority over rates and charges, a notable exception is the Washington Suburban Sanitary Commission (WSSC), which is one of the largest water and wastewater utilities serving the Washington, D.C.

180. Md. Code Ann., Pub. Util. § 2-112.
181. Pers. comm. with Annette B. Garofalo, Assistant Staff Council, Maryland Public Service Commission (October 11, 2016).
182. The city of Baltimore is an independent political and geographic subdivision. It is an incorporated city with both a city charter and a home rule charter, giving Baltimore a broad political power base.
183. The city of Baltimore currently offers customer assistance programs supported by revenue derived from other customers.

region. WSSC is exempt from home rule legislation and, therefore, subject to greater oversight by the State of Maryland. In fact, the Maryland General Assembly recently enacted legislation that enables, and actually mandates, WSSC to use revenues from utility tap fees to fund a bill discount program for eligible low-income customers.

Massachusetts

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	6,811,779
Median Annual Household Income (2015):	$68,563
Poverty Rate (2015):	11.6%
Typical Annual Household Water and Wastewater Expenditures (2015):	$1,000

Massachusetts has 526 community water systems (CWS), of which 194 are privately owned and 361 serve populations of 10,000 or fewer people.

Massachusetts has 126 publicly owned treatment works facilities (POTWs), of which 62 treat 1 MGD or less.

234,731 people are served by privately owned CWS; 9,120,698 are served by government-owned CWS; and 4,783,926 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$15.8 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

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

Commission-Regulated Utilities

The Water Division of the Department of Public Utilities (DPU) has supervisory authority over private water and wastewater companies in Massachusetts arising under Mass. Gen. Laws ch. 165, § 4.

The DPU does not regulate municipal corporations. According to its website, the Water Division's supervisory role is administered through the Rates and Revenue Requirements Division, which "assists in developing the evidentiary record in adjudicatory proceedings concerning the rates or finances of the public water companies doing business in Massachusetts."[184]

Under Mass. Gen. Laws ch. 165, § 1B, the DPU's Water Division is granted the power to establish reasonable rules and regulations to carry out its supervisory duties. Additionally, "water districts," which are self-governing districts created by special acts of the General Court, are required to file their rates with the department for informational purposes under Mass. Gen. Laws ch. 165, § 2A. However, because DPU's authority over investor-owned utilities is supervisory, there are no state statutes providing it with rate setting authority, nor are there any guiding principles found in the statutes related to commission-regulated utilities, dictating how rates should be set.

Thus, given this lack of specific statutory limitations or prohibitions, it appears that commission-regulated utilities could implement low-income customer assistance programs (CAPs) utilizing rate revenues.

Noncommission-Regulated Utilities

Massachusetts municipalities operate under home rule, according to the Home Rule Amendment in Mass. Const. art. LXXXIX and the Home Rule Procedures Act, Mass. Gen. Laws ch. 43B. There are no general limitations on rate setting found in the statutes governing all municipalities. However, for municipalities that so choose, Mass. Gen. Laws ch. 40N, the Model Water and Sewer Reorganization Act, provides for the creation of a Water and Sewer Commission for a municipality.[185] One of the duties of such a commission is to set rates for water or wastewater services provided by the municipal utility under Mass. Gen. Laws ch. 40N, § 9. The rate setting power is not limited by standards of reasonableness or prohibitions on discriminatory rates; however, the commission is required to set rates that will at least be sufficient to meet certain operating expenses, and any surplus at the end of the fiscal year is *required* to be applied to either a reduction in rates for the following year or a reduction in capital debt.

184. "Water Division Responsibilities," Executive Office of Energy and Environmental Affairs.

185. The language in the Model Water and Sewer Reorganization Act specifies that it applies to a city or town "that accepts the provisions of [the] chapter," or a municipality "which accepts [the] act." Mass. Gen. Laws ch. 40N, § 4.

Mass. Gen. Laws ch. 40N, § 9(e). Additionally, because some municipalities in Massachusetts operate under their own individual home rule charters, there may be limitations on rate setting for water or wastewater utilities in such charters. In sum, government-owned utilities have broad rate-making authority, with few, if any limitations or prohibitions that would prevent them from being able to implement low-income CAPs funded by rate revenues.

Additionally, Massachusetts currently offers the Low-income Sewer and Water Assistance Program, authorized by Mass. Gen. Laws ch. 23B, § 24B. This statewide program is implemented by the Department of Housing and Community Development and may be implemented in conjunction with the Low Income Home Energy Assistance Program (LIHEAP). To the maximum extent possible, the program is required to use the same grantee agencies, as well as similar applications and verification procedures, as are used by the LIHEAP. Recipients of the assistance may receive up to 25 percent of their annual water and wastewater bills, depending on the amount of funds designated for the program in a fiscal year.

Michigan

Commission-regulated utilities	***N/A***
Noncommission-regulated utilities	⚠

State Population (2016):	9,928,300
Median Annual Household Income (2015):	$49,576
Poverty Rate (2015):	16.7%
Typical Annual Household Water and Wastewater Expenditures (2015):	$911

Michigan has 1,385 community water systems (CWS), of which 648 are privately owned and 1,248 serve populations of 10,000 or fewer people.

Michigan has 393 publicly owned treatment works facilities (POTWs), of which 317 treat 1 MGD or less.

163,026 people are served by privately owned CWS; 7,230,623 are served by government-owned CWS; and 6,862,030 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$15.6 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Michigan is one of only six[186] states in which private water and wastewater companies are not regulated by a state utility commission.[187] Cities and villages within Michigan are granted authority to acquire, own, and operate their own water and wastewater facilities under Mich. Const. art. VII, § 24. However, the state constitution does not refer to rate-setting powers or limitations of water and wastewater utilities. The Michigan statutes include provisions that affect rate setting by water and wastewater utilities. First, Mich. Comp. Laws § 486.315 prohibits utilities from establishing rates that are "undue or excessive." Additionally, Mich. Comp. Laws § 123.141(2) provides that rates charged for water furnished *outside* of a local government's territorial limits must be based on the actual cost of service. No similar provision applies to water or wastewater services furnished *within* territorial boundaries.

Therefore, Michigan's statutes and constitution appear to provide broad rate-setting authority with few explicit limitations on a local entity's ability to utilize different rate structures. However, Mich. Const. art. IX, § 31, referred to as the "Headlee Amendment," prohibits local governments from increasing taxes without voter approval. Although this amendment on its own might not raise a red flag for a utility seeking to utilize rate revenues to fund a low-income customer assistance program (CAP), the Michigan Supreme Court, in *Bolt v. City of Lansing*,[188] ruled that a stormwater charge, which exceeded the actual cost of service, was an invalid tax. In reaching its holding, the court in *Bolt* laid out a three-prong test to be used to differentiate between a tax and a fee. First, the court held that a user fee is meant for regulation, whereas a tax is meant to generate revenues.[189] Second, the court continued, a user fee must be proportionate to the necessary cost of service.[190] Finally, the court held that unlike taxes, fees should be voluntary, meaning that people have the right to refuse use of the commodity.[191]

As is reflected in the discussion above, the Headlee Amendment, and the Michigan Supreme Court's interpretation of it, suggest that those opposed to affordability programs could claim that setting rates in order to generate revenues, which would then be used to subsidize service for low-income customers, is an invalid tax according to *Bolt's* three-prong test, unless voters approve of such a rate-setting program. To avoid this legal uncertainty, the Detroit Water and Sewerage Department has come up with a different source of revenue to fund its CAPs for its low-income customers. Such programs and Detroit's system of funding them is explained in more detail in the accompanying case study.

When it comes to affordability issues in the context of

186. The others are Georgia, Minnesota, North Dakota, South Dakota, and the District of Columbia.
187. Although water and wastewater utilities are not regulated with respect to rate setting, the Michigan Department of Environmental Quality regulates such utilities for compliance with water quality standards in Michigan.
188. Bolt v. City of Lansing, 587 N.W.2d 264, 279-81 (Mich. 1998).
189. Id. at 267-68 (citing Merrelli v. St Clair Shores, 355 Mich. 575, 583-584 (1959)).
190. Id. at 269 (citing Vernor v. Secretary of State, 179 Mich. 157, 167 (1914)).
191. Id. at 269-271 (citing Jones v. Detroit Water Comm'rs, 34 Mich. 273, 275 (1876)).

water and wastewater, Michigan is a unique state—not only because water and wastewater utilities are not regulated by a state utility commission, but also because it is the home of one of the nation's poorest large cities, Detroit, which faces tremendous water affordability concerns, as well as the home of Flint, a low-income community which has suffered a devastating drinking water contamination crisis.

Because the Headlee Amendment does not pertain to private water and wastewater utilities, such utilities are more likely to be able to use customer rate revenues to implement low-income CAPs.

Minnesota

Commission-regulated utilities	***N/A***
Noncommission-regulated utilities	⚠

State Population (2016):	5,519,952
Median Annual Household Income (2015):	$61,492
Poverty Rate (2015):	11.3%
Typical Annual Household Water and Wastewater Expenditures (2015):	$487

Minnesota has 967 community water systems (CWS), of which 230 are privately owned and 878 serve populations of 10,000 or fewer people.

Minnesota has 171 publicly owned treatment works facilities (POTWs), of which 141 treat 1 MGD or less.

43,681 people are served by privately owned CWS; 4,321,274 are served by government-owned CWS; and 3,318,877 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$9.7 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Minnesota is one of only six[192] states in which private water and wastewater companies are not regulated by a state utility commission. Rather, municipal water and wastewater utilities are regulated by the local government within which they operate.

Under Minn. Const. art. XII, § 4, local governments in Minnesota may adopt home rule charters. According to Minn. Stat. § 456.37, a home rule charter city "may charge a reasonable fee for supplying water." A second type of city in Minnesota, a "statutory city," operates under Minn. Stat. § 412.321.[193] For both types of cities, as well as for counties, Minn. Stat. § 444.075(3), provides that rates should be "just and equitable." Additionally, under the same statutory provision, "charges made for service rendered shall be as nearly as possible proportionate to the cost of furnishing the service."[194]

In *Daryani v. Rich Prairie Sewer & Water Dist.*,[195] a case addressing water and wastewater rates charged to an apartment complex, the Minnesota Court of Appeals acknowledged the difficulties in rate setting. Specifically, the court made reference to "perfect equality in establishing a rate system" not being "expected, nor can quality be measured with mathematical precision."[196] Instead, the court went on, the goal should only be a practical basis when establishing a rate system, "and apportionment of utility rates among different classes of users may only be roughly equal."[197] As for the rate challenged in the *Daryani* case, the court stated that it would "uphold an established rate system unless it is shown by clear and convincing evidence to be in excess of statutory authority or results in unjust, unreasonable, or inequitable rates."[198]

Thus, the biggest statutory challenge for utilities in Minnesota seeking to implement low-income customer assistance programs (CAPs) funded by rate revenues would be the requirement that rates be "proportionate to the cost of furnishing the service."[199]

192. The others are Georgia, Michigan, North Dakota, South Dakota, and the District of Columbia.
193. Of the 853 cities in Minnesota, 747 are statutory cities.
194. Minn. Stat. § 444.075(3). The statute includes an exception for specific rate restrictions found in individual charters.
195. Daryani v. Rich Prairie Sewer & Water Dist., No. A05-1200, 2006 WL 619058, at *2 (Minn. Ct. App. Mar. 14, 2006) (unpublished opinion).
196. Daryani, 2006 WL 619058, at *4.
197. Id.
198. Id. at *2.
199. Minn. Stat. § 444.075(3).

Mississippi

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

Commission-regulated utilities

Noncommission-regulated utilities 

State Population (2016):	2,988,726
Median Annual Household Income (2015):	$39,665
Poverty Rate (2015):	22.5%
Typical Annual Household Water and Wastewater Expenditures (2015):	$488

Mississippi has 1,059 community water systems (CWS), of which 76 are privately owned and 1,004 serve populations of 10,000 or fewer people.

Mississippi has 331 publicly owned treatment works facilities (POTWs), of which 279 treat 1 MGD or less.

67,480 people are served by privately owned CWS; 3,029,079 are served by government-owned CWS; and 1,848,641 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$5.7 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Mississippi Public Service Commission (MPSC) regulates private water and wastewater companies in the state of Mississippi under Miss. Code Ann. § 77-3-5 and § 77-3-41. The MPSC does not regulate municipal-owned utilities.[200]

The MPSC uses criteria outlined in Miss. Code Ann. § 77-3-43 to determine the rate base for utilities, which must be "fair" to both the utility and to the consumer. Additionally, in arriving at a rate base, the commission shall give due consideration to "any other elements deemed by the commission to be material in determining the rate base for rate-making purposes."[201] Commission-regulated utilities must file rate cases with the MPSC before changing their rates.[202] Furthermore, rates made by the MPSC cannot exceed what is "just and reasonable."[203] In *White Cypress Lakes Water v. Miss. Public Service Commission*,[204] the Mississippi Supreme Court held, "[a] fair rate is one which, under prudent and economical management, is just and reasonable to both the public and to the utility…(t)he public is entitled to demand that no more be exacted from the ratepayers than the services are reasonably worth."

Commission-regulated utilities would, thus, likely need to gain MPSC approval before changing their rate structures and policies to fund a low-income customer assistance program (CAP). Furthermore, the requirement that rates charged be for what a utility's "services are reasonably worth" could create the potential for a legal challenge to a CAP that provides varying rates.

Noncommission-Regulated Utilities

Mississippi's municipal governments have the right to regulate and set rates for their water and wastewater utilities under Miss. Code Ann. § 21-27-7. The Mississippi Attorney General held in a 1992 opinion that a "(m)unicipality may fix water rates as flat monthly rates for all consumers residing in the municipality and service area or a municipality may charge all consumers a certain amount per gallon of water used…[but] a public utility cannot discriminate in setting its rates among similarly situated users for the same type of service."[205] Furthermore, under state law, municipalities are prohibited from furnishing free utility services to "any private person, firm, corporation, or

200. Miss. Code Ann. § 77-3-1.
201. Miss. Code Ann. § 77-3-43.
202. Miss. Code Ann. § 77-3-37.
203. Miss. Code Ann. § 77-3-33.
204. White Cypress Lakes Water v. Miss. Pub. Serv. Comm'n, 703 So. 2d 246, 248-49 (Miss. 1997) (citing Southern Bell Tel. & Tel. Co. v. Miss. Pub. Serv. Comm'n, 113 So. 2d 622, 656 (Miss. 1959); State ex. rel. Pittman v. Miss. Pub. Serv. Comm'n, 506 So. 2d 978, 984 (Miss. 1987)).
205. Miss. A.G. Op. #92-0016 (Jan. 16, 1992), 1992 WL 614509 (Miss. A.G. Op. Jan. 16, 1992)).

association."[206]

The aforementioned prohibitions could create legal challenges for a government-owned utility seeking to implement a low-income CAP funded by rate revenues.

206. Miss. Code Ann. §21-27-27. Municipalities are allowed to furnish free utility services to "the municipality or any agency or department thereof, to any public school, or to any hospital or benevolent institution located within such municipality, including county, city, and community fairs." Id.

Missouri

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

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	6,093,000
Median Annual Household Income (2015):	$48,173
Poverty Rate (2015):	15.6%
Typical Annual Household Water and Wastewater Expenditures (2015):	$673

Missouri has 1,426 community water systems (CWS), of which 568 are privately owned and 1,354 serve populations of 10,000 or fewer people.

Missouri has 774 publicly owned treatment works facilities (POTWs), of which 688 treat 1 MGD or less.

1,446,792 people are served by privately owned CWS; 3,891,619 are served by government-owned CWS; and 4,335,947 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$18.1 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Missouri Public Service Commission (MPSC) regulates private water and wastewater companies in Missouri. The MPSC does not regulate government-owned water or wastewater utilities.

Pursuant to Mo. Rev. Stat. § 393.130.1, rates of commission-regulated utilities must be "just and reasonable and not more than allowed by law or by order or decision of the commission." Under Mo. Rev. Stat. § 393.130.2, commission-regulated utilities may not grant any special rates or rebates to any person or charge a greater or less compensation for water or wastewater services than charged to any other person "for doing a like and contemporaneous service with respect thereto under the same or substantially similar circumstances or conditions."[207] Additionally, under Mo. Rev. Stat. § 393.130.3, commission-regulated utilities are prohibited from granting any "undue or unreasonable preference or advantage to any person."

Thus, for commission-regulated utilities seeking to implement a low-income customer assistance program (CAP) funded by rate revenues, the prohibitions on the granting of special rates or rebates or of any undue or unreasonable *preference* or *advantage* would likely pose significant challenges. Further, any CAP would likely need to be authorized and approved by the MSPC.

Noncommission-Regulated Utilities

In Missouri, utilities that are not regulated by the MPSC include public and metropolitan water supply districts and municipal-owned water and wastewater utilities. Chapters 91 and 247 of the Missouri Revised Statutes authorize the governing boards of these utilities to establish and collect "reasonable" rates and charges for water and wastewater services. Missouri state law does not expressly prohibit alternative rate structures or discounts based on nonservice characteristics. Additionally, some municipalities and counties in Missouri operate under home rule charters and, thus, have more governing authority to create their own programs.[208]

In *Shepherd v. City of Wentzville*,[209] the court held that, although municipal-owned utilities are not subject to the rate-making process of the MPSC, the courts have jurisdiction to prevent a municipality from imposing utility charges that are "clearly, palpably and grossly unreasonable." The court further held that a municipality may classify its users for the purpose of fixing rates if the classification is reasonable and if there is no discrimination within a class.

207. An exception is made for the provision of a sliding scale for a fixed amount of time, provided the sliding scale is approved by the commission.

208. In Missouri, 44 municipalities (including the state's 8 largest cities) and 4 counties have adopted home rule charters pursuant to the state constitution.

209. Shepherd v. City of Wentzville, 645 S.W.2d 130, 133 (Mo. Ct. App. 1982).

Therefore, for noncommission-regulated utilities, there is no clear language specifically authorizing low-income CAPs funded by rate revenues. Additionally, the authority granted in the state statutes is broad and limited by general reasonableness requirements and a prohibition against discrimination within classes, arising from case law. Home rule municipalities or counties have even broader authority to allow for CAPs funded by rate revenues, subject to any limitations found in local charters.[210]

210. Several government-owned utilities in Missouri currently offer customer assistance programs that rely on customer revenues. For example, the Moberly Water Department provides a 25 percent discount (up to $10) on monthly water and wastewater bills for one year for income-eligible senior citizens and disabled customers. Additionally, the Metropolitan St. Louis Sewer District offers a 50 percent rate reduction to eligible low-income seniors and disabled customers.

Montana

Water and wastewater utilities in Montana fall under multiple rate setting regulatory systems.

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	1,042,520
Median Annual Household Income (2015):	$47,169
Poverty Rate (2015):	15.2%
Typical Annual Household Water and Wastewater Expenditures:	N/R

Montana has 728 community water systems (CWS), of which 500 are privately owned and 720 serve populations of 10,000 or fewer people.

Montana has 162 publicly owned treatment works facilities (POTWs), of which 147 treat 1 MGD or less.

141,262 people are served by privately owned CWS; 574,689 are served by government-owned CWS; and 525,659 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$1.2 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Montana Public Service Commission (MPSC) regulates the rates and services of private water and wastewater companies pursuant to Mont. Code Ann. § 69-1-102 and § 69-3-102. MPSC does not regulate government-owned water or wastewater utilities.[211]

Mont. Code Ann. § 69-3-201 requires commission-regulated utilities to charge rates that are "reasonable and just" and stipulates that "every unjust and unreasonable charge is prohibited and declared unlawful." Additionally, Mont. Code Ann. § 69-3-305 states that a commission-regulated utility "may not charge, demand, collect, or receive a greater or less compensation for a utility service." Mont. Code Ann. § 69-3-305 prohibits commission-regulated utilities from granting any rebate, concession, or special privilege to consumers that "directly or indirectly, has or may have the effect of changing the rates, tolls, charges, or payments." However, Mont. Code Ann. § 69-3-306 gives the MPSC authority to "prescribe classifications of service" that can take into account "the quantity used, the time when used, and *any other reasonable considerations*."

Thus, despite a prohibition on the granting of rebates or special privileges, it appears that, through Mont. Code Ann. § 69-3-306, commission-regulated utilities in Montana could potentially provide low-income customer assistance programs (CAPs) funded by rate revenues, *if* such rates were approved by the MPSC as part of the utility's official rate schedule.[212]

Noncommission-Regulated Utilities

Municipal-owned utilities, consolidated local government water supply and wastewater districts, metropolitan sanitary and/or storm sewer districts, and county water and/or wastewater districts are not regulated by the MPSC. Rather, different state statutes govern each of these different types of utilities. Utilities owned by a municipality[213] are generally authorized to implement "reasonable and just" rates for customers under Mont. Code Ann. § 69-7-101. However, Mont. Code Ann. § 7-13-4305 provides that municipal-owned wastewater and water utility customers shall not "be permitted to use said system unless they pay the full and established rate for said service" and that "no person may have service reestablished after it is discontinued . . . unless they have paid the full amount past due, any interest or penalty on such past-due amount, and any required reestablishment deposit." Further, Mont. Code Ann. § 7-13-4304 states that municipal-owned utility rates

211. The MMPSC also does not regulate providers that serve themselves only, including individuals, member-owned cooperatives, or associations serving members only.

212. At least one commission-regulated utility in Montana currently offers a bill discount program funded by customer revenues. Mountain Water Company offers monthly bill discounts for customers who qualify for the Low Income Home Energy Assistance Program.

213. According to Mont. Code Ann. § 7-1-4121, a municipality is "an entity that incorporates as a city or town."

"shall be uniform for like services in all parts of the municipality." Although these provisions contain potential limitations on rate setting, Montana is also a home rule state,[214] and therefore, municipal-owned utilities may have more leeway to implement different rates pursuant to local law.

Under Mont. Code Ann. § 7-13-3026, the governing bodies of consolidated local government water supply and wastewater districts are permitted to establish by ordinance or resolution "just and equitable" rates. This section also requires that "the rates, charges, and rentals must be as nearly as possible equitable in proportion to the services and benefits rendered…" Similar authority is provided for metropolitan sanitary and/or storm sewer districts and municipal-owned wastewater and/or water utilities.[215]

Additionally, Mont. Code Ann. § 7-13-2301 authorizes the board of directors of county water and/or wastewater districts to fix water and wastewater rates, with no limiting language.

Thus, there are few statutory limitations on rate setting for most government-owned utilities. Municipal-owned utilities appear to have the greatest potential for legal challenges if such entities were to implement low-income CAPs funded by rate revenues, specifically due to the uniformity requirement and the requirement that customers must pay the "full and established rate" for service. Additionally, any government-owned utility would need to consult the applicable home rule charter within which it operates to make sure there are no local law restrictions against rate-funded CAPs.[216]

214. Montana grants all powers to local governments through home rule.
215. See Mont. Code Ann. § 7-13-141 and § 7-13-4304.
216. The city of Bozeman currently offers a bill discount program funded by customer revenues. Under the program, the city credits back the fixed service charge portion of water and wastewater bills to participants. The program is available to homeowners who qualify for the State of Montana's property tax assistance program for low-income homeowners.

Nebraska

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

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	1,907,116
Median Annual Household Income (2015):	$52,997
Poverty Rate (2015):	12.7%
Typical Annual Household Water and Wastewater Expenditures (2015):	$476

Nebraska has 601 community water systems (CWS), of which 73 are privately owned and 587 serve populations of 10,000 or fewer people.

Nebraska has 467 publicly owned treatment works facilities (POTWs), of which 452 treat 1 MGD or less.

18,107 people are served by privately owned CWS; 1,584,553 are served by government-owned CWS; and 1,321,547 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$4.1 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Nebraska Public Service Commission (NPSC) regulates private water and wastewater companies in Nebraska.[217] NPSC does not regulate government-owned utilities.

Neb. Rev. Stat. § 75-1001 through § 75-1012 provides the general authority for the NPSC to regulate the rates and charges of private water and wastewater companies. However, these statutes provide little guidance with respect to allowable rates for such utilities. Neb. Rev. Stat. § 75-1009 simply states that "no rate or charge determined by the commission pursuant to the Water Service Regulation Act may yield more than a fair return on the fair value of property used and useful in rendering service to the public."[218] State statutes neither expressly prohibit nor expressly authorize the implementation of low-income customer assistance programs (CAPs) funded by rate revenues by commission-regulated water and wastewater utilities. While such programs may, thus, be possible, legal challenges could potentially arise from a lack of express authority, or from court interpretation of the aforementioned provision.

Noncommission-Regulated Utilities

Most of the cities and all counties in Nebraska operate pursuant to general law, meaning their powers are limited to those expressly authorized by the state legislature. Separate statutes address rate setting by water and wastewater utilities owned and operated by government entities, including municipalities of different classes and counties.[219] Specifically, Neb. Rev. Stat. § 16-682 grants first class cities[220] the right to charge rates for water services which "the city council shall by ordinance deem just or expedient." For metropolitan class cities, Neb. Rev. Stat. § 14-2114 provides the board of directors with "power and authority to determine and fix all water . . . rates and to determine what shall be a reasonable rate."

Regarding wastewater services, Neb. Rev. Stat. § 16-694 stipulates that the mayor and city council of first class cities may establish, by ordinance, rates for wastewater service that are "fair and reasonable" but further requires that any charges collected "shall be placed in a separate fund and used exclusively for the purpose of maintenance and repairs of any sewers in such city." Similarly, Neb. Rev. Stat. § 14-365.10 requires that wastewater service charge revenues in metropoli-

217. See Neb. Rev. Stat. § 75-1002.
218. With respect to other types of commission-regulated utilities, such as telecommunications utilities, state statutes require that the rates be "reasonable" and that utilities not "grant undue preference or advantage to any particular person." Neb. Rev. Stat. § 75-1009.
219. See Neb. Rev. Stat. § 14-2114, § 14-365.10, § 15-223; see also Neb. Rev. Stat. § 16-682, § 16-694, § 17-538.
220. First class cities have between 5,000 and 100,000 inhabitants.

tan class cities be used for designated purposes[221] and further requires that "any funds raised from this charge shall be placed in a separate fund and not be used for any other purpose or diverted to any other fund."

In *Erickson v. Metropolitan Utilities District*,[222] the Nebraska Supreme Court found that a Metropolitan Utilities District of Omaha surcharge to customers who owned a nonconserving air conditioning unit was unreasonable, unjust, and discriminatory, largely because it was not based on differences in the cost of service between customers who did and did not own these units. The court acknowledged that although state statutes provide "the board of directors of the district with the power and authority to determine what shall be a reasonable water rate, this power and authority is not without restrictions."[223] In its decision, the court cited general rules which state that "charges must be equal to all for the same service under like circumstances" and that a "public service corporation is impressed with the obligation of furnishing its service to each patron at the same price it makes to every other patron for the same or substantially the same or similar service."[224]

Thus, for the majority of cities and counties operating under general law, the power and authority to establish their own rates is "not without restrictions" and the greatest potential for legal challenges would likely arise from the case law articulated above, which requires that charges must be equal for the "same service under like circumstances." Additionally, it is unclear how the provisions limiting the uses of wastewater funds would be interpreted. The two largest cities in Nebraska, Omaha and Lincoln, operate pursuant to a home rule charter and, therefore, may have a greater authority to implement low-income CAPs funded by rate revenues under their local laws.[225]

221. Specifically, wastewater rates must "be used for maintenance or operation of the existing system, payment of principal and interest on bonds issued, or to create a reserve fund for the payment of future maintenance, operation, or construction of a new sewer system." Neb. Rev. Stat. § 14-365.10.
222. Erickson v. Metro. Utils. Dist., 107 N.W.2d 324, 332-33 (Neb. 1961).
223. Id. at 331.
224. Id. (citing 12 McQuillin, Municipal Corporations (3d Ed.), 299).
225. Additionally, the U.S. EPA's 2016 compendium Drinking Water and Wastewater Utility Customer Assistance Programs outlines three existing affordability programs in Nebraska including two temporary assistance programs (one offered by the City of Fremont and the other offered by Metropolitan Utilities District (MUD)) and a bill discount program (also offered by MUD). Such programs, however, are not funded by rate revenues.

Nevada

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

Commission-regulated utilities GO

Noncommission-regulated utilities !

State Population (2016):	2,940,058
Median Annual Household Income (2015):	$51,847
Poverty Rate (2015):	15.5%
Typical Annual Household Water and Wastewater Expenditures (2015):	$634

Nevada has 213 community water systems (CWS), of which 112 are privately owned and 199 serve populations of 10,000 or fewer people.

Nevada has 50 publicly owned treatment works facilities (POTWs), of which 35 treat 1 MGD or less.

74,220 people are served by privately owned CWS; 2,605,950 are served by government-owned CWS; and 2,972,245 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$8.0 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Nevada Public Utilities Commission (Nevada PUC) regulates the rates of private water and wastewater companies.[226] The Nevada PUC does not regulate government-owned utilities,[227] quasi-governmental bodies, or political subdivisions of the state.[228]

Pursuant to Nevada Rev. Stat. § 704, the Nevada PUC must approve the rate schedules of the utilities that it regulates. Further, under Nev. Rev. Stat. § 704.120.1, the Nevada PUC has the authority to fix or order changes to rate schedules that it finds to be "unjust, unreasonable, or unjustly discriminatory."[229] However, Nev. Rev. Stat. § 704.110.14(b) states the Nevada PUC can authorize a "reduced rate" for low-income residential customers, after a hearing.

Thus, commission-regulated utilities are expressly permitted by statute to provide low-income customer assistance programs (CAPs) funded by rate revenues in the form of "reduced rates."

Noncommission-Regulated Utilities

The Nevada PUC does not regulate utilities run by cities and counties, or those operated by water authorities and districts. The majority of cities in Nevada operate pursuant to municipal charters, and the remainder of cities and counties are subject to general law.[230] In addition, Nevada has many unincorporated towns. Although they may have a local board, unincorporated towns receive most services and governance from their respective counties. Several statutes, including Nev. Rev. Stat. § 710.540 and § 244.366, authorize the establishment and operation of water and wastewater utilities by various government entities, and include general rate setting language. Additionally, Nev. Rev. Stat. § 244.3651 gives authority to the board of county commissioners of counties whose population is greater than 100,000 but less than 700,000 to establish by ordinance a program to provide financial assistance for customers in connecting to a public water or wastewater utility or disconnecting from a private water or wastewater company. The statute provides that the board "may accept gifts, grants and other sources of money" or issue bonds and other securities to finance such a program, implying but not explicitly mentioning that utilities may use rate revenues. Finally, the

226. The Nevada PUC also regulates the service territories (but not the rates or service quality) of water and wastewater utilities that are under the control of a noninvestor, private governing body, such as a co-op or homeowner's association.
227. The Nevada PUC also regulates the service territories (but not the rates or service quality) of water and wastewater utilities that are under the control of a noninvestor, private governing body, such as a co-op or homeowner's association.
228. Including the Southern Nevada Water Authority, the Las Vegas Valley Water District, and the Truckee Meadows Water Authority.
229. Nevada Power Co. v. Eighth Judicial Dist. Court of Nevada ex rel. County of Clark, 102 P.3d 578 (Nev. 2004) (holding that the only limit on the authority of the Nevada PUC to regulate utility rates is the legislative directive that rates charged for services provided by a public utility must be just and reasonable and that it is unlawful for a public utility to charge an unjust or unreasonable rate).
230. Local government in Nevada consists of 16 county governments and 19 incorporated city governments. Twelve of the 19 cities in the state operate pursuant to municipal charter.

statute states that the board "may set forth conditions or limitations on any financial assistance provided pursuant to the program."[231] The addition of this *express* financial authorization for these specific counties suggests that low-income CAPs that would not fall under this provision may be deemed unlawful for cities and counties that operate under general law.[232]

In sum, for cities operating pursuant to municipal charters, the ability to implement low-income CAPs funded by rate revenues could be limited or specifically permitted by such charters. Cities and counties operating under general law seeking to implement rate-funded CAPs could potentially face challenges based on a lack of express authority found in the statutes. Additionally, some government-owned utilities in Nevada, such as the Las Vegas Valley Water District and the Truckee Meadows Water Authority, were established through special acts of the state legislature.[233] The ability of these noncommission-regulated utilities to provide low-income CAPs funded by rate revenues is therefore subject to their enabling legislation.[234]

The U.S. EPA's 2016 compendium *Drinking Water and Wastewater Utility Customer Assistance Programs*[235] highlights two government-owned water and wastewater utilities, in the city of Reno and the city of Henderson, that offer low-income CAPs, which appear to be funded by rate revenues.[236]

231. Nev. Rev. Stat. § 244.3651.
232. See Galloway v. Truesdell, 422 P.2d 237, 246 (Nev. 1967) (holding that the maxim expressio unius est exclusio alterius, the expression of one thing is the exclusion of another, is applied in Nevada).
233. For example, the Las Vegas Valley Water District Act of 1947 establishes and provides regulations for the Las Vegas Valley Water District (LVVWD) with respect to rates and service.
234. For example, Section 16 of the LVVWD Act of 1947 allows the LVVWD Board of Directors to fix reasonable rates that are sufficient to pay operating and maintenance expenses, general district expenses, principal and interest on all outstanding bonds, and any payments required to be made into any sinking fund for such bonds. LVVWD has interpreted this language to mean that it can set rates to cover only the cost of service; it therefore does not allow for cross-subsidization.
235. U.S. EPA, "Drinking Water and Wastewater Utility Customer Assistance Programs" (2016).
236. Both cities highlighted in the compendium operate pursuant to municipal charters.

New Hampshire

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

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	1,334,795
Median Annual Household Income (2015):	$66,779
Poverty Rate (2015):	8.9%
Typical Annual Household Water and Wastewater Expenditures:	N/R

New Hampshire has 699 community water systems (CWS), of which 555 are privately owned and 681 serve populations of 10,000 or fewer people.

New Hampshire has 88 publicly owned treatment works facilities (POTWs), of which 70 treat 1 MGD or less.

206,654 people are served by privately owned CWS; 663,084 are served by government-owned CWS; and 603,146 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs: $2.5 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The New Hampshire Public Utilities Commission (New Hampshire PUC) regulates private water and wastewater companies. The New Hampshire PUC does not regulate government-owned utilities.[237]

With respect to commission-regulated utilities, N.H. Rev. Stat. Ann. § 374:2 mandates that rates shall be "just and reasonable" and "not more than is allowed by law or by order of the public utilities commission." N.H. Rev. Stat. Ann. § 378:10 states that commission-regulated utilities shall not "give any undue or unreasonable preference or advantage to any person or corporation, or to any locality, or to any particular description of service . . . or subject any particular person or corporation or locality, or any particular description of service, to any undue or unreasonable prejudice or disadvantage."

Despite the statutory limitations articulated above, in *Appeal of McCool*,[238] the court found that a "utility may establish different rates for various classes of consumers when circumstances render any lack of uniformity reasonable." In addition, most energy utilities in New Hampshire, which are all regulated by the New Hampshire PUC, have a separate, discounted rate schedule for low-income customers. Although there is express statutory authorization for low-income rates for electric utilities, there is no similar authorization for natural gas or water utilities. However, many natural gas utilities also have low-income rate schedules.

Thus, in light of the fact that state statutes expressly authorize commission-regulated *electric* utilities to have a separate, discounted rate schedule for low-income customers, and more notably that commission-regulated *natural gas* utilities are utilizing low-income rates without express statutory authorization, it appears that commission-regulated water and wastewater utilities may be allowed to implement low-income customer assistance programs (CAPs) funded by rate revenues within the current statutory framework, as well.

Noncommission-Regulated Utilities

The New Hampshire PUC does not regulate municipal-owned water and wastewater utilities. New Hampshire largely follows Dillon's Rule, which means the authority of cities and towns must be specifically designated or provided for by the state legislature through state statutes. N.H. Rev. Stat. Ann. ch. 38 provides cities, towns, and other government bodies with the authority to establish water and/or wastewater utility districts. N.H. Rev. Stat. Ann. § 38:28 states that district governing bodies may establish water rates

237. However, if a municipal-owned utility serves customers outside of its municipal boundaries and wishes to charge those customers a higher rate than it charges to customers inside municipal boundaries, the utility must obtain approval from the New Hampshire PUC.
238. Appeal of McCool, 514 A.2d 501, 513 (N.H. 1986).

to acquire, construct, maintain, repair, or improve a utility, and further, that the "amount of such rates may be based upon the consumption of water on the premises connected to the water system, or the number of persons served on the premises, or upon some *other equitable basis.*" In addition, New Hampshire has a unique state law, N.H. Rev. Stat. Ann. § 165:1, that requires cities and towns to provide financial assistance and aid to residents who are not able to pay for basic living expenses, such as rent, mortgage payments, food, transportation, medical prescriptions, clothing, and *utility bills*.

This statutory language appears to provide relatively broad authority to government-owned utilities to implement low-income CAPs funded by rate revenues. It appears that several municipalities have used this general authority to provide assistance to low-income customers and others in need. A recent rate survey by the New Hampshire Department of Environmental Services[239] found that many utilities offer assistance programs for low-income and elderly customers.[240]

239. "2015 Water Rate Survey," New Hampshire Department of Environmental Services (2015).
240. For example, the City of Manchester offers a 50 percent discount to low-income, disabled, and elderly customers. To qualify for the program, these customers must meet criteria consistent with that established by the City of Manchester for property tax exemption.

New Jersey

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

Commission-regulated utilities STOP

Noncommission-regulated utilities ⚠

State Population (2016):	8,944,469
Median Annual Household Income (2015):	$72,093
Poverty Rate (2015):	10.8%
Typical Annual Household Water and Wastewater Expenditures (2015):	$786

New Jersey has 587 community water systems (CWS), of which 269 are privately owned and 427 serve populations of 10,000 or fewer people.

New Jersey has 157 publicly owned treatment works facilities (POTWs), of which 67 treat 1 MGD or less.

3,327,582 people are served by privately owned CWS; 5,547,181 are served by government-owned CWS; and 8,148,555 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$24.6 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The New Jersey Board of Public Utilities (BPU) regulates the rates and services of private water and wastewater companies to "ensure safe, adequate, and proper utility services at reasonable rates for customers in New Jersey."[241] With respect to utilities regulated by BPU, N.J. Rev. Stat. § 48:3-1 mandates that no commission-regulated utility "shall make, impose or exact any unjust or unreasonable,[242] unjustly discriminatory or unduly preferential individual or joint rate," nor may any commission-regulated utility "adopt or impose any unjust or unreasonable classification in the making or as the basis of any individual or joint rate."[243] These rules on rates have two statutory exceptions, which apply only to certain senior citizen cooperative associations and to employees of natural gas and electric utilities.[244]

Based on personal communications with BPU, the lack of a statutory exception for commission-regulated water and wastewater utilities has been interpreted to mean that these companies are unable to provide low-income customer assistance programs (CAPs) funded by rate revenues.[245] Although several commission-regulated utilities, including New Jersey American Water and SUEZ Water, offer low-income CAPs, these programs are funded through non-rate revenues, including voluntary contributions.

Noncommission-Regulated Utilities

BPU does not regulate the rates of government-owned water and wastewater utilities in New Jersey. New Jersey is a home rule state, meaning that local governments have relatively broad authority to establish local regulations subject to limitations included in state statutes. N.J. Rev. Stat. § 40:14B-2 allows counties and municipalities to operate waterworks and wastewater facilities and to charge for the services they provide through the establishment of a municipal authority. Additionally, under N.J. Rev. Stat. § 40:14B-21 and § 40:14B-22, municipal water and wastewater authorities are authorized to charge and collect rates for services which "shall as nearly as the municipal authority shall

241. Compared to most other states, investor-owned water utilities serve a relatively large portion (close to 40 percent) of New Jersey's population.
242. Petition of Pub. Serv. Coordinated Transp., 74 A.2d 580, 591-95 (N.J. 1950) (holding that the rate which a commission-regulated utility may reasonably charge should be sufficient to encourage good management and furnish a reward for efficiency, to enable utility under efficient and economic operations to maintain and support its credit, and to enable it to raise money necessary for proper discharge of its public duties, and it can never be more than reasonable worth of service supplied nor be fixed so low as to be confiscatory, and if rate is within such limits and supported by competent evidence, rate set would be just and reasonable).
243. Further, N.J. Rev. Stat. § 48:3-4 prohibits commission-regulated utilities from providing any undue or unreasonable preference or advantage to any person or from subjecting any person to any prejudice or disadvantage.
244. Specifically, N.J. Rev. Stat. § 48:19-26 allows the New Jersey Board of Public Utilities (BPU) to grant an exception from any law or rule prohibiting special, discriminatory, or preferential rates to non-profit water companies owned by senior citizen cooperative associations that provide service only to the members of such association. N.J. Rev. Stat. § 48:3-4 allows gas or electric public utilities to supply such services to employees at reduced rates.
245. BPU has confirmed that expenditures for low-income customer assistance programs cannot be recovered through rates. Pers. comm. with Ken Welch, Maria L. Moran, Director, Division of Water, N.J. BPU (December 6, 2016).

deem practicable and equitable be *uniform* throughout the district for the same type, class and amount of use, products or services..." except as otherwise permitted by N.J. Rev. Stat. § 40:14A-8.2.

The abovementioned exception allows municipal and county authorities to establish reduced rates or total abatements for senior and/or disabled citizens meeting certain income requirements.[246] Additionally, N.J. Rev. Stat. § 40:14A-8.3 requires county, regional, and municipal wastewater authorities to establish a 50 percent reduction in connection or tapping fees for public housing authorities and non-profit organizations that construct affordable housing pursuant to Section 8 rules.

Therefore, government-owned water and wastewater utilities that do not operate under home rule charters may be limited to only providing CAPs to elderly and disabled customers who meet certain income requirements. Alternatively, if local governments operating under municipal charters seek to implement low-income CAPs funded by rate revenues, such programs could be subject to challenges under the "uniformity" clause or under any limitations found in individual charters. In addition, as of October 2016, the New Jersey state legislature is considering a bill that would expand the state's Lifeline Credit Program and the Tenants' Lifeline Assistance Program to provide assistance for water bills. Under existing law, these programs provide a $225 benefit only on gas and electric utility bills to eligible customers who are participating in state or federal assistance programs.

246. N.J. Rev. Stat. § 40:14A-8.2.

New Mexico

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

Commission-Regulated Utilities

The New Mexico Public Regulation Commission (NMPRC) regulates private water and wastewater companies. The Gas, Water, and Wastewater Engineering Bureau, a division of the NMPRC, "develops rate base, and provides input to the cost of service and revenue requirements portions of rate cases."[247] The NMPRC and the bureau do not regulate rates and services for government-owned utilities.[248] However, domestic water associations and water and sanitation districts may elect to be regulated by NMPRC under N.M. Stat. Ann. § 3-28-21 and § 73-21-55, respectively.

With respect to commission-regulated utilities, N.M. Stat. Ann. § 62-8-1 requires that all rates shall be "just and reasonable," and N.M. Stat. Ann. § 62-8-6 mandates that no commission-regulated utility shall "make or grant any unreasonable preference or advantage" to any person within any classification or subject any person to "any unreasonable prejudice or disadvantage." This statute goes on to state that no commission-regulated utility "shall establish and maintain any unreasonable differences as to rates of service either as between localities or as between classes of service."[249] Although this section allows approval of economic development rates and energy efficiency programs designed to reduce the burden of energy costs on low-income customers, it does not specifically allow commission-regulated water or wastewater utilities to develop low-income customer assistance programs (CAPs) funded by rate revenues. The ability to charge different rates to customers within the same class is further limited by N.M. Stat. Ann. § 62-2-5, which states that any private water company formed for the purpose of furnishing and supplying water has the right to "furnish water . . . . at such rates as the bylaws may prescribe; but equal rates shall be conceded to each class of consumers."

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	2,081,015
Median Annual Household Income (2015):	$44,963
Poverty Rate (2015):	21.0%
Typical Annual Household Water and Wastewater Expenditures (2016):	$1,605

New Mexico has 579 community water systems (CWS), of which 213 are privately owned and 551 serve populations of 10,000 or fewer people.

New Mexico has 125 publicly owned treatment works facilities (POTWs), of which 100 treat 1 MGD or less.

153,132 people are served by privately owned CWS; 1,742,954 are served by government-owned CWS; and 1,791,255 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$1.5 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Thus, for commission-regulated utilities seeking to implement low-income CAPs funded by rate revenues, the greatest potential for legal challenges would likely arise from the statutory provision prohibiting such utilities from utilizing any unreasonable differences in rates between classes of service. State statutes also explicitly authorize low-income CAPs for energy providers; however, the statutes do not currently provide the same authorization for commission-regulated water and wastewater utilities. Therefore, this lack of authority may be used to support the argument that such programs are not allowed.

247. "Engineering," Gas, Water, and Wastewater Engineering Bureau, N.M. Pub. Reg. Comm'n.
248. Government-owned utilities include municipal-owned utilities, special districts, and mutual domestic water users associations.
249. N.M. Stat. Ann. § 62-8-6.

Noncommission-Regulated Utilities

Government-owned utilities, including water and sanitation districts, and mutual domestic water users associations are not regulated by the NMPRC. State statutes require only that municipalities and counties impose a "just and reasonable" service charge upon customers for maintaining wastewater and water services.[250] Additionally, N.M. Const. art. IX, § 14, contains an antidonation clause that prohibits counties and municipalities from using government funds to benefit persons or private entities, even charitable organizations. However, the clause includes an exception for "sick and indigent persons."[251]

As a home rule state, government-owned utilities have relatively broad authority to establish utility rates. Case law suggests that municipal-owned utilities are not strictly limited to charging rates that cover only the cost of service.[252] Additionally, state courts have held that the laws of the State of New Mexico mandate no particular methodology for a municipality to follow when determining reasonable, fair, and equitable rates for use of a municipal-owned water utility.[253]

Thus, for government-owned utilities, state statutes mandate only that rates be "*just and reasonable.*" The Albuquerque Bernalillo County Water Utility Authority (ABCWUA),[254] the largest utility in the state, currently offers a low-income bill discount to eligible customers, which is funded, at least in part, by consumer revenues.[255]

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251. N.M. Stat. Ann. § 3-26-2, § 3-27-4, § 4-36-8 and §4-36-10.
252. In Apodaca v. Wilson, 525 P.2d 876, 881-86 (N.M. 1974), the court found that rates charged by the city were reasonable even though they raised more money than was necessary to provide the services. Further, the court held that statutes, which specifically authorized municipalities to charge just and reasonable rates for the purposes of maintaining, constructing, and repairing water and wastewater facilities, did not preclude the city from using funds received from such rates for any other purposes.
253. See Fleming v. Town of Silver City, 992 P.2d 308, 311-13 (N.M. 1999)
254. The Albuquerque Bernalillo County Water Utility Authority (ABCWUA) was established in 2003 under N.M. Stat. Ann. § 72-1-10, which provides ABCWUA with the power to "set policy and regulate, supervise and administer the water and wastewater utility of Albuquerque and Bernalillo County, including the determination and imposition of rates for services." The statute does not expressly prohibit ABCWUA from providing customer assistance programs (CAPs) to low-income customers.
255. ABCWUA has cited New Mexico's antidonation clause as something to be attentive to when designing CAPs. It believes it is able to offer the bill discount program, despite the antidonation clause, by narrowly defining the income category to indigent customers and by contracting with a third party to evaluate low-income qualifications for the program.

New York

Water and wastewater utilities in New York fall under several rate-setting regulatory systems.

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	19,745,289
Median Annual Household Income (2015):	$59,269
Poverty Rate (2015):	15.7%
Typical Annual Household Water and Wastewater Expenditures (2015):	$600

New York has 2,324 community water systems (CWS), of which 1,102 are privately owned and 2,176 serve populations of 10,000 or fewer people.

New York has 588 publicly owned treatment works facilities (POTWs), of which 438 treat 1 MGD or less.

1,160,738 people are served by privately owned CWS; 17,041,181 are served by government-owned CWS; and 16,090,861 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$50.8 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The New York Public Service Commission (NYPSC) regulates the rates and services of private water companies. Pursuant to N.Y. Pub. Serv. Law § 89-c, NYPSC does not regulate government-owned utilities, including utilities owned by cities, towns, and water districts. NYPSC also does not have jurisdiction over county-owned utilities or water and wastewater authorities established under N.Y. Pub. Auth. Law § 1014.

With respect to NYPSC-regulated utilities, N.Y. Pub. Serv. Law § 89-b(1) states that all charges made or demanded "shall be just and reasonable and not more than allowed by law or by order of the commission." The law goes on to state that no commission-regulated utility shall charge or receive[256] a greater or less compensation for water than it receives "from any other person or corporation for doing a like and contemporaneous service with respect thereto under the same or substantially similar circumstances or conditions."[257] Finally, N.Y. Pub. Serv. Law § 89-b(3) maintains that no commission-regulated utility "shall make or grant any undue or unreasonable preference or advantage to any person, corporation or locality, or to any particular description of service in any respect whatsoever."

N.Y. Pub. Serv. Law § 37(1) requires large private water companies regulated by NYPSC[258] *and* government-owned utilities to offer residential customers a deferred payment plan prior to disconnecting service.[259] The statute goes on to define the terms of such an agreement, which include a down payment on the amount past due, as well as full payment of arrears over time.

While the statutes referenced above would seem to limit the ability of commission-regulated utilities to provide low-income customer assistance programs (CAPs) funded by rate revenues, in January 2017 NYPSC approved the development of a low-income rebate program by SUEZ Water, an investor-owned utility operating in New York. NYPSC's "Order Establishing Rate Plan" for SUEZ Water specifically states that the program can be funded by ratepayer revenues.[260] SUEZ Water has 6 months from the effective date of the Order (January 24, 2017) to design the program.

256. By any special rate, rebate, drawback or other device.
257. N.Y. Pub. Serv. Law § 89-b(2).
258. N.Y. Pub. Serv. Law § 50 defines "large private water utilities" as waterworks corporations with annual gross revenues in excess of $250,000 per year.
259. Specifically, the law states that "no utility corporation or municipality shall terminate or refuse to take all actions within such corporation or municipality's control . . . to restore service to a residential customer, because of arrears owed the utility corporation or municipality, unless the utility or municipality offers such customer a deferred payment agreement for such arrears." N.Y. Pub. Serv. Law § 37(1).
260. See Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of SUEZ Water New York Inc. for Water Service, Case No. 16-W-0130 (N.Y. Pub. Serv. Comm'n 2017).

Noncommission-Regulated Utilities

NYPSC does not regulate government-owned utilities, including water and wastewater authorities, and municipal- or county-owned utilities. N.Y. Pub. Auth. Law art. 5 establishes 24 water and/or wastewater authorities throughout the state (such as, Buffalo County Water Authority, New York City Water Finance Authority, and Albany Water Authority). Together, these entities serve the majority of New York state residents. In general, individual statutes provide broad authority for these entities to fix rates and collect charges that provide revenues sufficient to pay all expenses.[261] However, in most cases, the law does not expressly authorize or prohibit low-income assistance programs and/or cross-subsidization.[262]

Under N.Y. County Law § 266(1), the administrative head or body of county water and wastewater utilities may establish wholesale and retail rates for water and wastewater services. [263]Such rates should be "determined on any equitable basis," and classifications are allowed based on service characteristics.[264] The allowance of only service related characteristics could potentially create grounds for legal challenges against low-income CAPs funded by rate revenues.

In New York, all incorporated cities in the state operate pursuant to a home rule charter. Therefore, government-owned utilities may have some leeway to establish low-income CAPs funded by ratepayer revenues, subject to any limitations found in individual charters.[265]

The NYC Department of Environmental Protection (DEP), which is governed by the New York City Water Board pursuant to N.Y. Pub. Auth. Law art. 5, offers several low-income assistance programs funded by customer revenues, including a Home Water Assistance Program (HWAP), which provides a bill discount via an annual credit of $115.89 to senior and disabled homeowners who make less than $37,500 per year.

261. See, e.g., N.Y. Pub. Auth. Law § 1154.

262. One exception is that the N.Y. Compilation of Codes, Rules & Regulations specifically authorize the Buffalo Water Authority to establish rates for low-income senior citizens. N.Y. Comp. Codes R. & Regs. tit. 21, § 10085.12 states that "water rates for all homeowners who, by virtue of their age, are eligible for real property tax exemption pursuant to the New York Real Property Tax Law, section 467 shall be eligible for exemption or reduction in water rates as set forth in the board schedule of rates."

263. There are 62 counties in New York; 5 of these counties fall under the jurisdiction of the City of New York, 19 operate pursuant to home rule charters, and 38 are governed by general law.

264. Under N.Y. County Law § 266(1), classifications, "for purposes of establishing differential rates, charges or rentals, may [be] allocate[d] among areas within the district designated by the administrative head or body, the costs of establishment of the district, the furnishing of improvements therein and operation and maintenance of district facilities or any combination thereof."

265. Some recent New York case law supports the authority of water and wastewater authorities to establish rate classifications based on income. On June 7, 2016, three Tax Class 2 property owners and the Rent Stabilization Association of NYC sued DEP and the Water Board challenging the Water Board's adoption of the FY 2017 rate schedule, which included a 2.1 percent rate increase to be used to fund a $183 rebate to all class one property owners. On June 20, 2016, the Manhattan Supreme Court invalidated the Water Board's resolution approving a new rate schedule finding "that the Water Board exceeded its authority and acted in an arbitrary, capricious, and unreasonable manner in adopting the FY 2017 Rate Schedule" by adopting "the Mayor's proposal to issue credits to certain rate payers, i.e., one, two, and three family homeowners in the City" rather than using the surplus for costs of furnishing water services and/or avoiding the need to increase water rates. See Prometheus Realty Corp. v New York City Water Bd., 37 N.Y.S.3d 362, 366 (N.Y. Sup. Ct. 2016). The Water Board appealed the decision, and the Supreme Court for New York County upheld the lower court's opinion, finding that the one-time rebate lacked a rational basis. See Matter of Prometheus Realty Corp. v. New York City Water Bd., 147 A.D.3d 519 (N.Y. App. Ct. 2017). Specifically, in reaching its holding, the court articulated "[a]lthough the Water Board claims that the credit would be more financially meaningful for class one property owners, the credit is not in any way tied to financial need. There is no rational basis for the conclusion that class one ratepayers have traditionally borne a disproportionate burden of water and sewage fees. While the Water Board argues that some members of class one rate payers experience financial hardship in paying for water, the application of the credit does not in any manner take into consideration an owner's ability to pay or customers' need for this benefit, solely relying on the classification of the property for tax purposes, which bears little relation to the stated objective."

North Carolina

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

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	10,146,788
Median Annual Household Income (2015):	$46,868
Poverty Rate (2015):	17.4%
Typical Annual Household Water and Wastewater Expenditures (2017):	$914

North Carolina has 2,010 community water systems (CWS), of which 1,458 are privately owned and 1,875 serve populations of 10,000 or fewer people.

North Carolina has 318 publicly owned treatment works facilities (POTWs), of which 213 treat 1 MGD or less.

855,740 people are served by privately owned CWS; 7,164,754 are served by government-owned CWS; and 4,409,160 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$15.1 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The North Carolina Utilities Commission (NCUC) regulates rates set by private water and wastewater companies.[266] The NCUC does not regulate government-owned water or wastewater utilities.[267]

Under N.C. Gen. Stat. § 62-130, the NCUC shall "make, fix, establish, or allow just and reasonable rates" for commission-regulated utilities. Regulation by the NCUC is done on an individual rate case basis.[268] N.C. Gen. Stat. § 62-140 provides that no commission-regulated utility shall "make or grant any unreasonable preference or advantage to any person or subject any person to any unreasonable prejudice or disadvantage" and prohibits commission-regulated utilities from utilizing "any unreasonable difference as to rates or services either as between localities or as between classes of service."

Additionally, commission-regulated utilities are not allowed to charge any person more or less than what the NCUC sets for any service, nor are customers permitted to receive service for a rate greater or less than what the NCUC has set.[269] Under N.C. Gen. Stat. § 62-132, rates set by the NCUC are deemed "just and reasonable," and any rate charged by a commission-regulated utility that differs from the NCUC rates shall be deemed "unjust and unreasonable."

In sum, commission-regulated utilities are not expressly prohibited from implementing low-income customer assistance programs (CAPs) funded by rate revenues; however, any such program would have to be approved by the NCUC. Additionally, the language prohibiting commission-regulated utilities from charging greater or less than commission approve rates, or from granting any preferences or advantages to one customer over another customer, likely holds the greatest potential for legal challenges.

Noncommission-Regulated Utilities

Under N.C. Gen. Stat. § 160A-312(a) and § 153A-275, cities and counties are authorized to own and operate "public enterprises," which are defined to include water and wastewater utilities.[270] Further, N.C. Gen. Stat. § 160A-314 and § 153A-277 provide that cities and counties may establish and revise rates for public enterprise services, which "may vary according to

266. N.C. Gen. Stat. § 62-130.
267. The NCUC has jurisdiction over any utility furnishing water to the public for compensation or operating a public wastewater utility for compensation. See N.C. Gen. Stat. § 62-3(23)d, § 62-30, § 62-31, § 62-32.
268. "Rate Consolidation," National Association of Water Companies.
269. N.C. Gen. Stat. § 62-139.
270. N.C. Gen. Stat. § 160A-311.

classes or service."[271] In *City of Asheville v. State*,[272] the court held that, under the broad rate-setting authority found in N.C. Gen. Stat. § 160A-314, "the setting of . . . rates and charges [for water and sewer services] is a matter for the judgment and discretion of municipal authorities, not to be invalidated by the courts *absent some showing of arbitrary or discriminatory action.*" However, in *Town of Taylorsville v. Modern Cleaners*,[273] the court held that "[a] public utility, whether publicly or privately owned, may not discriminate in the distribution of services or establishment of rates." Additionally, the court elaborated that the "[s]tatutory authority of the city to fix and enforce rates for water and sewer services and to classify its customers is not a license to discriminate among customers of essentially the same character and services; rather, the statute must be read as a codification of the general rule that a city has the right to adopt reasonable classifications based on factors such as cost of service."[274]

Thus, although there appears to be broad rate-setting authority granted to government entities owning and operating water and wastewater authorities, the aforementioned case law could be interpreted as requiring that rates must be based on cost of service characteristics. For government-owned utilities, this possible cost of service limitation likely creates the greatest potential for legal challenges to low-income CAPs funded by rate revenues. Several publications by the state's leading local government finance legal academic expert reflect this view, advising local governments that using rate revenues to fund these programs is not allowed.[275]

271. For counties, the phrasing is slightly different and provides that rates may vary for the same class in different areas of the county or may vary according to classes.
272. City of Asheville v. State, 665 S.E.2d 103, 123 (N.C. Ct. App. 2008) (citing Town of Spring Hope v. Bissette, 280 S.E.2d 490 (N.C. 1981)).
273. Town of Taylorsville v. Modern Cleaners, 237 S.E.2d 484, 486 (N.C. Ct. App. 1977).
274. Id.
275. See generally Kara A. Millonzi, A Guide to Billing and Collecting Public Enterprise Utility Fees for Water, Wastewater, and Solid Waste Services, UNC School of Government (2008), 89 (concluding that government-owned utilities cannot reduce utility fees directly).

North Dakota

North Dakota is one of only six[276] states in which private water and wastewater companies are not regulated by a state utility commission. Although private water companies do operate in the state, they are generally very small and are not regulated by state law with respect to rates.

Government-owned water and wastewater utilities, including municipal/community utilities and rural or regional water districts, provide water and wastewater services to the majority of North Dakota's residents. The North Dakota Century Code provides very little guidance or requirements related to the establishment of rates by these utilities. N.D. Cent. Code § 40-05-01(36) permits municipalities "to purchase, acquire by eminent domain, . . . erect, lease, rent, manage, and maintain any system of waterworks…and to fix and regulate the rates, use, and sale of water."

N.D. Cent. Code § 40-34-01 similarly allows municipalities to develop wastewater utilities, and N.D. Cent. Code § 40-34-05 permits the governing bodies of municipalities to establish "just and equitable" rates. In the absence of more specific regulations, it appears that municipalities and other government entities have relatively broad authority to implement rates and charges for water and wastewater services as they see fit, within the bounds of reasonableness.[277]

Thus, government-owned water and wastewater utilities in North Dakota would likely be able to implement low-income customer assistance programs (CAPs) funded by rate revenues. This includes both local government entities that operate pursuant to local home rule charters, as well as those that operate under general law.[278]

Commission-regulated utilities	***N/A***
Noncommission-regulated utilities	!

State Population (2016):	757,952
Median Annual Household Income (2015):	$57,181
Poverty Rate (2015):	11.5%
Typical Annual Household Water and Wastewater Expenditures:	N/R

North Dakota has 327 community water systems (CWS), of which 69 are privately owned and 318 serve populations of 10,000 or fewer people.

North Dakota has 285 publicly owned treatment works facilities (POTWs), of which 275 treat 1 MGD or less.

101,987 people are served by privately owned CWS; 534,935 are served by government-owned CWS; and 506,627 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$0.6 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

276. The others are Georgia, Michigan, Minnesota, South Dakota, and the District of Columbia.

277. As support for the notion that North Dakota municipalities have broad powers in rate-setting, in Meyer v. City of Dickinson, the court held that "because the City is given the general power to maintain a public water system and to fix and regulate rates and sale of water, it necessarily follows that the City is accorded broad discretion in determining the manner and means of exercising that power." Meyer v. City of Dickinson, 451 N.W.2d 113, 117 (N.D. 1990) (citing Lang v. City of Cavalier, 59 N.D. 75, 228 N.W. 822 (N.D. 1930)).

278. Of North Dakota's 357 incorporated cities, 130 have adopted home rule charters. This includes the state's 10 largest cities, with populations ranging from approximately 7,730 (Wahpeton) to 107,350 (Fargo).

Ohio

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

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	11,614,373
Median Annual Household Income (2015):	$49,429
Poverty Rate (2015):	15.8%
Typical Annual Household Water and Wastewater Expenditures (2015):	$632

Ohio has 1,216 community water systems (CWS), of which 584 are privately owned and 1,055 serve populations of 10,000 or fewer people.

Ohio has 815 publicly owned treatment works facilities (POTWs), of which 634 treat 1 MGD or less.

3,081,963 people are served by privately owned CWS; 711,7313 are served by government-owned CWS; and 9,243,750 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$25.9 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Public Utilities Commission of Ohio (PUCO) regulates private water and wastewater companies. PUCO does not have the authority to regulate government-owned utilities.[279]

PUCO gains its jurisdiction over private water and wastewater companies from Ohio Rev. Code Ann. § 4905.04 and § 4905.05. PUCO rates must be "reasonable," and Ohio Rev. Code Ann. § 4909.15 provides the criteria that the commission should use when determining and fixing reasonable rates. Commission-regulated utilities need to file their rate changes and new rate schedules with PUCO before modifying their rates according to Ohio Rev. Code Ann. § 4905.32 and § 4909.17. Commission-regulated utilities are also prohibited, under Ohio Rev. Code Ann. § 4905.32, from charging rates different than those filed with PUCO.

Additionally, a commission-regulated utility cannot charge different rates than it charges any other person, firm, or corporation for "doing a like and contemporaneous service under substantially the same circumstances and conditions." Ohio Rev. Code Ann. § 4905.33(A). And, under Ohio Rev. Code Ann. § 4905.33(B), no commission-regulated utility "shall furnish free service or service for less than actual cost for the purpose of destroying competition."[280] However, Ohio Rev. Code Ann. § 4905.34 provides an exception, allowing commission-regulated utilities to grant free or reduced services "for charitable purposes."

Therefore, for commission-regulated utilities, the aforementioned prohibition against furnishing free or reduced-cost services holds the greatest potential for legal challenges to low-income customer assistance programs (CAPs) funded by rate revenues, although the statutory exception "for charitable purposes" seems likely to protect such programs. Additionally, commission-regulated utilities would need PUCO approval to implement rate-funded CAPs.

Noncommission-Regulated Utilities

Ohio has a unique system of regulation for private water and wastewater companies operating within municipal boundaries. Although such companies are regulated by PUCO in compliance with the rules articulated above, Ohio Rev. Code Ann. § 743.26 provides that the legislative authority[281] of a municipal corporation has the right to regulate the rates charged by water and wastewater companies within its jurisdiction, and

279. However, for private water and wastewater companies operating within the boundaries of a municipal corporation, the legislative authority of such municipal corporation has statutory authority to regulate the rates set by the private utility.

280. See Ohio Edison Co. v. Pub. Utils. Comm'n, 678 N.E. 2d 922, 926-28 (Ohio 1997) (holding that Ohio Rev. Code Ann. § 4905.33 is unambiguous and requires public utilities to charge all similarly situated customers the same rates).

281. Including municipalities, counties, cooperatives, and water and wastewater districts.

that such companies may not charge greater rates than are established by ordinance.

However, rates set by private water and wastewater companies operating within municipal boundaries can still be subject to PUCO review in several scenarios. First, private utilities can complain and seek review of the municipal fixed rates from PUCO.[282] In the event of a complaint, PUCO determines whether the set rates are "reasonable" and will re-set a rate if it finds it unreasonable.[283] Private utilities can also file a petition to PUCO to change their rates on the basis that company costs changed.[284] In addition, if a municipality fails to establish or fix rates by ordinance, the private utilities can file a petition to have PUCO fix "just and reasonable rates."[285] However, PUCO has no power to review municipal-owned water utility rates without a complaint or petition from a private utility, and there is nothing stopping the municipal legislature from exercising its power to subsequently establish a "reasonable" rate by ordinance. For purely government-owned or operated water and wastewater utilities, they are not regulated by PUCO in any manner. According to the Ohio Constitution, Ohio is a home rule state. This gives local governments operating pursuant to home rule charters broad authority to set their own rates, so long as they are reasonable. Furthermore, municipal legislatures can provide by ordinance that water or wastewater services can be "furnished free of charge."[286]

Thus, for commission-regulated utilities operating within municipal boundaries, rates may be set by the municipal government through ordinances. Such rates could potentially be used to implement low-income CAPs; however, rates could still be challenged through the complaint and review process articulated above, and PUCO would be the ultimate decider as to whether the rates are reasonable. For government-owned or operated water and wastewater utilities, it appears that there is broad rate setting authority with few limitations and additional statutory language that could potentially be used to support the provision of low-income CAPs funded by rate revenues.

282. Maxwell v. Ohio Fuel Gas Co., 22 N.E.2d 639, 643 (Ohio Ct. App. 1938).
283. City of Cleveland v. Pub. Utils. Comm'n, 125 N.E. 864, 865-66 (Ohio 1919).
284. Under Ohio Rev. Code Ann. § 4909.171, utilities must meet two conditions to qualify for a rate change:
(1) The water or sewage treatment is provided to the company by either of the following:
(a) A municipal corporation or other local governmental unit of this state whose rates are not subject to regulation by the commission;
(b) Another waterworks company, or another sewage disposal system company, that is a public utility and whose rates for the water, or the sewage treatment, have been approved by the commission pursuant to an application filed under section 4909.18 of the Revised Code.
(2) The change in rate or charge is based solely on a change in the cost to the company of the water or the sewage treatment.
285. Ohio Rev. Code Ann. § 4909.35.
286. Ohio Rev. Code Ann. § 743.27. See also State ex. rel. City of Dayton v. Kenealy, 164 N.E.2d 400, 401 (Ohio 1960) (holding that municipal governments are allowed to pass "rate-fixing ordinance(s)" without the necessity of the utility's acceptance).

Oklahoma

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

Commission-regulated utilities

Noncommission-regulated utilities

State Population (2016):	3,923,561
Median Annual Household Income (2015):	$46,879
Poverty Rate (2015):	16.7%
Typical Annual Household Water and Wastewater Expenditures (2015):	$468

Oklahoma has 1,071 community water systems (CWS), of which 269 are privately owned and 1,018 serve populations of 10,000 or fewer people.

Oklahoma has 488 publicly owned treatment works facilities (POTWs), of which 438 treat 1 MGD or less.

71,536 people are served by privately owned CWS; 3,560,321 are served by government-owned CWS; and 2,646,453 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$8.9 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Oklahoma Corporation Commission (OCC) was created by Okla. Const. art. 9, § 15 and regulates private water companies.[287] The OCC does not regulate government-owned utilities or wastewater utilities. [288] Okla. Stat. tit. 17, § 152 grants the OCC general supervision over all private water companies and explicit power to fix and establish rates. There is no statutory language regarding the types of rates that the OCC must fix or establish. However, Okla. Const. art. 9, § 18 provides that the OCC shall have the power and authority to regulate and supervise private water companies, for the purpose of "preventing unjust discrimination and extortion" by such utilities. In order to do so, the OCC is granted the power to prescribe and enforce rates, as well as charges and classifications, and to make and enforce requirements, rules, and regulations "as may be necessary to prevent unjust or unreasonable discrimination and extortion" in favor of or against any person.[289]

Thus, it seems possible that commission-regulated water utilities could implement a low-income customer assistance program (CAP) funded by rate revenues, if such rates are approved by the OCC. However, the OCC's additional role of preventing "unjust discrimination" could create the potential for a legal challenge.

Noncommission-Regulated Utilities

Municipalities[290] in Oklahoma, not regulated by the OCC, operate under both general law and, in some cases, individual municipal charters. Under general law, municipalities are granted the power to own and operate water and wastewater utilities under Okla. Stat. tit. 11, § 37-102. Further, Okla. Stat. tit 11, § 37-109 provides that the municipal governing body shall fix the water charges to be paid by the consumer.

Although there is very little guidance for rate setting by municipal-owned water or wastewater utilities in the Oklahoma statutes, the state courts have provided some helpful analysis. In *Fretz v. City of Edmond*, the Oklahoma Supreme Court asserted that a municipality operating a utility is governed by the same restrictions as private utility companies in practices of discrimination in rates and service.[291] The court further clarified

287. Okla. Stat. tit. 17, § 151.

288. Government-owned utilities include those owned by cities, towns, and other bodies politic.

289. The Oklahoma Supreme Court has interpreted this as providing that a public utility is entitled to earn a reasonable return on its investment, but at the same time, the Corporation Commission has the duty to insure the public adequate service at reasonable rates without discrimination. See Application of Valliant Tel. Co., 656 P.2d 273, 275 (Okla. 1982).

290. Municipality is defined to include any incorporated city or town. Okla. Stat. tit. 11, § 1-102.

291. Fretz v. City of Edmond, 168 P. 800, 802-04 (Okla. 1916); see also Oklahoma City & Motor Hotel Ass'n, Inc. v. Oklahoma City, 531 P.2d 316, 319 (Okla. 1974).

that the rule does not prohibit discrimination of any kind, but only *unjust* discrimination.[292] In *Fretz*, the court found that it was not discriminatory for the city municipality to donate water to a school, even though the citizen, taxpayer, customer plaintiff was required to pay a fixed water rate.[293] The Supreme Court of Oklahoma also addressed rate setting for municipal wastewater utilities in *Sharp v. Hall*.[294] In that case, the court held that the constitutional and statutory provisions granting municipalities the powers of engaging in business do not specifically prescribe what rates may be charged, nor do they specify to what purpose the profits must be appropriated.[295]

In sum, government-owned water and wastewater utilities have broad rate setting authority, which appears to be limited only by the aforementioned requirement that rates must not be "unjustly discriminatory." If such utilities seek to implement low-income CAPs funded by rate revenues, this requirement holds the greatest potential for legal challenges.

292. Fretz, 168 P. at 803.
293. Id. at 804.
294. Sharp v. Hall, 181 P.2d 972, 974-75 (Okla. 1947).
295. Id.

Oregon

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

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	4,093,465
Median Annual Household Income (2015):	$51,243
Poverty Rate (2015):	16.5%
Typical Annual Household Water and Wastewater Expenditures (2015):	$991

Oregon has 884 community water systems (CWS), of which 538 are privately owned and 829 serve populations of 10,000 or fewer people.

Oregon has 182 publicly owned treatment works facilities (POTWs), of which 140 treat 1 MGD or less.

148,639 people are served by privately owned CWS; 3,261,298 are served by government-owned CWS; and 3,481,662 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$8.9 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Oregon Public Utility Commission (PUC) regulates private water and wastewater companies. The Oregon PUC does not regulate government-owned water and wastewater utilities. With respect to commission-regulated utilities, Or. Rev. Stat. § 756.040 requires the Oregon PUC to protect customers "from unjust and unreasonable exactions and practices and to obtain for them adequate service at fair and reasonable rates." In addition, the statute states that the commission "shall balance the interests of the utility investor and the consumer in establishing fair and reasonable rates."[296] Rates are "fair and reasonable" according to this section if they provide adequate revenue for capital and operating costs, as well as an adequate return to the equity holder.[297]

While *Gearhart v. Public Utility Commission of Oregon*[298] established that the Oregon PUC has broad jurisdiction in determining what is "fair," "just," and "reasonable," Or. Rev. Stat. § 757.310 prohibits commission-regulated utilities from charging customers "a rate or an amount for a service that is different from the rate or amount the utility charges any other customer for a like and contemporaneous service under substantially similar circumstances." An exemption exists in Or. Rev. Stat. § 757.315(3), which explicitly allows natural gas utilities to use rate revenues for bill payment assistance, however, there is no similar exception for water utilities.

A 1993 opinion issued by the Office of the Oregon Attorney General confirmed that the Oregon PUC cannot approve income-based rate classifications, stating "[t]he commission is a creation of the legislature. As such, 'its power arises from and cannot go beyond that expressly conferred upon it' by the legislature . . . Nothing in ORS 757.230, or in any other statute, gives the commission authority to set rate classifications based on income."[299]

However, the opinion goes on to state that the Oregon PUC could approve the issuance of rebates to eligible low-income customers. The attorney general's office reasoned that with rebates, the commission would not be authorizing utilities to collect customer rates that differ by the income of those customers. Instead, all classes of customers, regardless of income level, would be charged the same utility rates. A utility could then issue rebates to low-income customers without being

296. Or. Rev. Stat. § 756.040.

297. Rate setting requirements for utilities regulated by Oregon PUC are further established in Or. Rev. Stat. § 757.020. This section requires that charges made by any commission-regulated utility "shall be reasonable and just, and every unjust or unreasonable charge for such service is prohibited." Id.

298. Gearhart v. Pub. Util. Comm'n of Oregon, 299 P.3d 533, 537 (Or. 2013). The court in Gearhart also established that the Oregon PUC "is not obligated to employ any single formula or combination of formulas to determine what are in each case just and reasonable rates." Id.

299. Or. Op. Atty. Gen. OP-6475 (Or. A.G.), 1993 WL 602059 (internal citations omitted).

in violation of Or. Rev. Stat. § 757.310.

Thus, commission-regulated utilities could face legal challenges based on the statutes that prohibit utilities from offering different rates for customers under substantially similar conditions or on the basis of the attorney general's opinion cited above. However, under the same attorney general's opinion, commission-regulated utilities may provide rebates to low-income customers (i.e., after rate charges have been collected).

Noncommission-Regulated Utilities

State statutes provide very few restrictions on the establishment of rates for government-owned utilities.[300] Additionally, many municipalities operate under home rule, which gives them broader rate setting authority.

However, some statutes and case law suggest that rates must be based on cost of service. Specifically, Or. Rev. Stat. § 264.310 states that water supply districts may fix and classify rates "according to the type of use and according to the amount of water used." Additionally, in *Kliks v. Dalles City*,[301] a case challenging differences in rates on the basis of nonservice characteristics, the court found that where a municipality makes differentiations in rate to be charged for water service or other service rendered by municipal utilities, but differences in conditions cannot be shown between customers entitled to different rates, "all customers are entitled to receive the same service on an equal basis and at uniform rate." The court further held that "a difference in rates must find justification in a difference in conditions of service."[302]

Thus, although government-owned utilities have broad rate setting authority, the aforementioned case law suggests that classifications and rates based on nonservice characteristics would be subject to legal challenges. Despite this, and as documented in the U.S. EPA's 2016 compendium, *Drinking Water and Wastewater Utility Customer Assistance Programs*, several government-owned water and wastewater utilities in Oregon offer low-income customer assistance programs.

300. In Oregon, utilities that are not regulated by Oregon PUC include municipal-owned water and wastewater utilities, domestic water supply districts, sanitary districts, water and sanitary authorities, and People's Utility Districts.
301. Kliks v. Dalles City, 335 P.2d 366, 374 (Or. 1959). In this case, the nonservice characteristics were the inclusion of rooming houses, boarding houses, motels, hotels, and trailer courts under a classification distinct from, and under a more favorable rate structure than, apartment houses. Id.
302. Id.

Pennsylvania

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

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	12,784,227
Median Annual Household Income (2015):	$53,599
Poverty Rate (2015):	13.5%
Typical Annual Household Water and Wastewater Expenditures (2015):	$826

Pennsylvania has 1,960 community water systems (CWS), of which 1,130 are privately owned and 1,813 serve populations of 10,000 or fewer people.

Pennsylvania has 846 publicly owned treatment works facilities (POTWs), of which 663 treat 1 MGD or less.

3,206,567 people are served by privately owned CWS; 7,835,576 are served by government-owned CWS; and 11,369,523 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$21.2 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Pennsylvania Public Utility Commission (Pennsylvania PUC) has jurisdiction over rate setting for all privately owned and operated water and wastewater companies.[303] The Pennsylvania PUC does not regulate government-owned water and wastewater utilities.

For such companies, 66 PA Cons. Stat. § 1301, requires that every rate made, demanded, or received shall be "just and reasonable." Additionally, 66 Pa. Cons. Stat. § 1304 prohibits commission-regulated companies from "making or granting any unreasonable preference or advantage to any person, or from subjecting any person to unreasonable prejudice or disadvantage." The same provision further states that no commission-regulated company shall establish or maintain any "unreasonable difference as to rates between classes of service."[304]

The courts have interpreted the aforementioned reasonableness requirement to mean "as long as classification of customer[s] is reasonable or is founded upon some reasonable basis, a utility may charge different rates for different classes of customers."[305] In *City of Pittsburgh v. Pennsylvania Public Utility Commission*,[306] the court held that to prove *unreasonable* discrimination, the city must show that certain customers "are paying an unreasonably high rate thereby giving an advantage to other residential customers who are paying unreasonably low rates." In that case, the difference between the commission's approved rates and the city's proposed rates resulted in a $1.84 per year difference for an average residential customer, which the commission found to be *de minimis* and, therefore, not discrimination.[307] It is, thus, conceivable that commission-regulated water or wastewater companies could attempt customer assistance programs (CAPs) that rely on rate revenues and which even utilize income-based classifications.[308, 309]

303. 66 Pa. Cons. Stat. § 501(b). See also 66 Pa. Cons. Stat. § 102.
304. 66 Pa. Cons. Stat. Ann. § 1304. The prohibition, however, does not apply to rates charged for service rendered outside of a municipality's corporate limits, so long as such differing rates are reasonable.
305. Peoples Natural Gas Co. v. Pennsylvania Pub. Util. Comm'n, 409 A.2d 446, 455 (Pa. Commw. Ct. 1979).
306. City of Pittsburgh v. Pennsylvania Public Utility Comm'n, 526 A.2d 1243, 1247 (Pa. Commw. Ct. 1987).
307. Id. at 1247-48.
308. The electric and gas industries have been implementing customer assistance programs funded by rate revenues for more than 20 years, beginning back in 1990 with Columbia Gas Company's pilot energy assistance program. Since that time, the Pennsylvania PUC has interpreted classification of gas and electric rates based on income to be "reasonable" and in the best interest of all ratepayers, not just program participants. Further, the legislature, in creating legislation related to the restructuring of the electric utility industry, included in 66 Pa. Cons. Stat. § 2802(11) that "[t]he Commonwealth must, at a minimum, continue the protections, policies and services that now assist customers who are low-income to afford electric service." The progress of the development of customer assistance programs in the energy sector is discussed in more detail in a subsequent section of this document.
309. In relation to arrearage/debt forgiveness programs specifically, 66 Pa. Cons. Stat. Ann. § 1405 authorizes the Pennsylvania PUC to establish payment arrangements between a public utility and its customers and applicants within certain limits, and it provides statutory limits on the length of payments, number of payments, and extensions of payments with which a utility would have to comply.

Noncommission-Regulated Utilities

With respect to government-owned utilities not regulated by the Pennsylvania PUC, different types of local government entities in Pennsylvania, most notably, municipal authorities and municipalities, are treated differently for purposes of utility regulation. Municipal authorities have the power to fix, alter, charge, and collect reasonable and uniform rates.[310] Municipalities, on the other hand, generally have no express statutory limitations on rate setting for provision of utility services.[311] Any municipality operating a water or wastewater utility and serving customers outside of its corporate boundaries is subject to regulation by the Pennsylvania PUC. Additionally, if a city or other municipality operates under home rule, and has an individual charter, there could be limiting language that would affect water or wastewater rate setting found in such charter.

As for the ability of municipal authorities to implement CAPs relying on rate revenues, the statutes require only reasonable rates, and a uniform rate structure. Therefore, any rate funded CAP could be subject to reasonableness or uniformity challenges.

Municipalities attempting to implement low-income CAPs funded by rate revenues without home rule charters would be subject to any limitations in the relevant state codes, depending on whether they are a third class city, borough, or township.[312] On the other hand, municipalities operating under home rule charters have freedom to determine their own rates, and would likely be able to implement rate-funded CAPs, if no prohibitions exist in their individual charters.[313]

310. 53 Pa. Cons. Stat. § 5607(d)(9).
311. There are six forms of municipalities or local governments in Pennsylvania: counties, cities, boroughs, towns, townships, and school districts. See 53 Pa. Cons. Stat. Ann. § 5602.
312. Most municipalities in Pennsylvania that operate their own utilities (i.e., those that do not use a municipal authority) are not home rule municipalities. Although the state codes for such municipalities do not generally contain rate-setting language or restrictions, Pennsylvania courts have generally held municipal rate making to the same general standards as public utility rate setting (reasonable, just, not unduly discriminatory).
313. Only a few cities and counties have adopted home rule and, therefore, operate under their own charter. Home rule is expensive, politically sensitive, and requires a level of professionalism and expertise that is often lacking in smaller municipalities.

Puerto Rico[314]

Commission-regulated utilities	*N/A*
Noncommission-regulated utilities	!

State Population (2016):	3,411,307
Median Annual Household Income (2015):	$19,350
Poverty Rate (2015):	45.5%
Typical Annual Household Water and Wastewater Expenditures (2016):	$1,444

Puerto Rico has 410 community water systems (CWS), of which 211 are privately owned and 349 serve populations of 10,000 or fewer people.

Puerto Rico has 45 publicly owned treatment works facilities (POTWs), of which 22 treat 1 MGD or less.

110,164 people are served by privately owned CWS; 3,608,488 are served by government-owned CWS; and 2,349,116 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$6.2 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

The Constitution of the Commonwealth of Puerto Rico does not address water and wastewater rate setting directly. However, it does state that "(n)othing herein contained shall impair the authority of the Legislative Assembly to enact laws to deal with grave emergencies that clearly imperil the public health or safety or essential public services."[315] Additionally, Puerto Rico has sovereign authority to enact its own laws, as long as these laws do not conflict with its own constitution, the United States Constitution, or relevant federal law.[316]

In Puerto Rico, private water and wastewater companies are not regulated by the Puerto Rico Public Service Commission (Comisión de Servicio Público).[317]

The Puerto Rico Aqueduct and Sewer Authority (PRASA), the largest utility in the territory, serves about 95 percent of Puerto Rico's population.[318] Small independent community water supply utilities, also known as non-PRASA utilities, serve the remainder of the population.[319]

PRASA

Under P.R. Laws Ann. tit. 22, § 158, PRASA is governed by a board which is authorized to fix charges that are "just and reasonable." This section of law also states that PRASA "shall render no free services," though this statement refers to offering free services to the government of Puerto Rico and its municipalities rather than directly to customers. Additionally, P.R. Laws Ann. tit. 22, § 821, states that PRASA "shall establish a flat monthly rate for customers residing in public housing projects owned by the Public Housing Administration."[320]

There is not a specific statute, nor has there been case law, that directly addresses whether PRASA can implement low-income customer assistance programs (CAPs) funded by rate revenues. Thus, it remains unclear the extent to which PRASA is able to implement such programs.

However, despite this uncertainty, PRASA provides a 35 percent bill discount on the base charge for resi-

314. After the Spanish-American War in 1898, Puerto Rico became a U.S. territory. Puerto Rico is also a commonwealth, but not a state, of the United States of America.
315. P.R. Const. art. II, § 18.
316. Ley para el Cumplimiento con las Deudas y para la Recuperación de las Corporaciones Públicas de Puerto Rico, 2014 Puerto Rico Laws Act 71 (P. del S. 1164). Of additional importance, Puerto Rico has been fraught with financial difficulties in recent years. The situation is exacerbated by statutory provisions that exclude Puerto Rico, its political subdivisions, public agencies, or instrumentalities from amending their debt obligations under the modern bankruptcy code passed in 1978. The code defines "municipality" as a "political subdivision or public agency or instrumentality of a State." Because Puerto Rico is not a state, it has not been able to benefit from this code.
317. "Plan Estratégico," Comisión de Servicio Público (CSP).
318. Puerto Rico Aqueduct and Sewer Authority, or PRASA, is known locally as Autoridad de Acueductos y Alcantarillados.
319. Letter from Karen L. Massey, Chair, Environmental Financial Advisory Board, to Cynthia Giles, Assistant Administrator, Office of Enforcement and Compliance Assurance, U.S. Environmental Protection Agency.
320. This statute addresses adoption of the subsidized electric power service flat rate for public housing project customers.

dents[321] who are otherwise eligible for the Programa de Asistencia Nutricional, the Programa de Ayuda Temporal para Familias Necesitadas, or the Administración de Seguros de Salud de Puerto Rico.[322] Additionally, under the authority of P.R. Laws Ann. tit. 22, § 821, since 2010, PRASA has provided a bill discount CAP to all public housing residential customers, which requires such customers to only pay the base charge for both water and wastewater.

Non-PRASA Utilities

Regarding non-PRASA water and wastewater utilities, a 2015 report published by the EPA's Environmental Advisory Board (EFAB) recommended that these utilities "establish monthly user fees that would allow the water systems to be sustainable for the foreseeable future." EFAB recognized that these fees may be at a level above the ability of some of the users to pay and suggested that "a subsidy may be required." The board went on to advise that the territory consider how the use of subsidies would be implemented, encouraging careful evaluation of whether the subsidies would be at the user level or at the water utility level.

Due to the absence of case law or statutory language applicable to non-PRASA utilities, it is unclear whether such utilities would face any legal challenges if they were to implement low-income CAPs funded by rate revenues; however, it appears, based on the aforementioned recommendations from the EPA, that they are being encouraged to do so, and under Puerto Rico's sovereign authority, it is possible legislation could be put in place to establish the requisite framework and authority for such programs to be implemented.

321. For Programa de Asistencia Nutricional and Administración de Seguros de Salud de Puerto Rico programs, customers need to be 65 and older in order to be eligible.
322. "Tarifa—Lo que necesita saber," Autoridad de Acueductos y Alcantarillados.

Rhode Island

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

Commission-regulated utilities

Noncommission-regulated utilities

State Population (2016):	1,056,426
Median Annual Household Income (2015):	$56,852
Poverty Rate (2015):	14.2%
Typical Annual Household Water and Wastewater Expenditures:	N/R

Rhode Island has 93 community water systems (CWS), of which 43 are privately owned and 78 serve populations of 10,000 or fewer people.

Rhode Island has 20 publicly owned treatment works facilities (POTWs), of which 7 treat 1 MGD or less.

34,263 people are served by privately owned CWS; 988,063 are served by government-owned CWS; and 768,736 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$2.0 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

Under 39 R.I. Gen. Laws § 39-1-2, the Rhode Island Public Utilities Commission (PUC) and the Division of Public Utilities and Carriers (DPUC) regulate the rates and services of private water and wastewater companies, as well as municipal water utility boards that serve areas outside the boundaries of their respective municipality.[323] Pursuant to 39 R.I. Gen. Laws § 39-1-2, the Rhode Island PUC and the DPUC do not regulate municipal-owned utilities. With respect to commission-regulated utilities, 39 R.I. Gen. Laws § 39-1-1(3)(b) stipulates that the state's policy is to provide water supplies using "just and reasonable" rates "without unjust discrimination, undue preferences or advantages, or unfair or destructive competitive practices." 39 R.I. Gen. Laws § 39-15.1-3(b)(3) directly addresses equitability in rates for commission-regulated utilities, requiring that "where practicable, rates shall be based on metered usage and fairly set among and within the classes and/or types of users." This statute also provides commission-regulated utilities with the authority to establish a "basic residential use rate for water use that is designed to make a basic level of water use affordable."[324]

In *Blackstone Valley Chamber of Commerce v. Public Utilities Commission*,[325] the court reviewed the legality of a rate increase that applied to all customers but which was not imposed on the first 300 kWh of usage by residential customers. The court found that this exemption was intended to provide a "lifeline rate" designed for the "benefit of elderly or poor residential users."[326] The court reiterated that "public service companies are not eleemosynary[327] institutions, and they cannot be compelled to devote their property to a public use except upon the well-recognized basis of a fair and reasonable return therefor. Through general taxation only, in common with all taxpayers, can they be compelled to contribute to the relief of the distressed."[328] The court extended this principle to the customers of a commission-regulated utility, holding that such "customers cannot be compelled to devote their property in the form of utility payments for the benefit of those deemed worthy by the commission to be subsidized,

323. The Rhode Island PUC serves as a quasi-judicial tribunal that holds investigations and hearings involving the rates of commission-regulated water utilities, whereas the Division of Public Utilities and Carriers exercises jurisdiction, supervision, powers, and duties not specifically assigned to the Rhode Island PUC. The Rhode Island PUC also regulates some government-owned utilities, such as for the City for Providence, that obtain water from a source owned or leased by the water resources board or serving customers outside the boundaries of their municipality. The Rhode Island PUC also regulates Kent County Water Authority.

324. 39 R.I. Gen. Laws § 39-15.1-3(b)(3). However, this seems to indicate a lower rate for a first tier of usage for all customers, rather than a special rate or discount for low-income customers.

325. Blackstone Valley Chamber of Commerce v. Pub. Utils. Comm'n, 396 A.2d 102, 104 (R.I. 1979).

326. Id. at 104.

327. Eleemosynary is an adjective that describes things related to charitable giving.

328. Blackstone Valley Chamber of Commerce, 396 A.2d at104 (R.I. 1979) (citing State ex rel. Puget Sound Power & Light Co. v. Dep't. of Pub. Works, 38 P.2d 350, 353 (1934)).

particularly in the absence of any specific statutory authority for the commission to mandate such a result."[329]

Thus, for commission-regulated utilities, state statutes prohibiting rates that are unjustly discriminatory or which provide undue preferences or advantages could create the potential for legal challenges to low-income customer assistance programs (CAPs) funded by rate revenues. Additionally, strong state case law expressly discourages the use of differences in rates in order to subsidize certain classes of customers.

Noncommission-Regulated Utilities

For municipal-owned utilities, 45 R.I. Gen. Laws § 45-39.1-5(b)(1) requires that rates, apart from service charges and other fixed fees and charges, "be based on metered usage and fairly set among and within the classes and/or types of users." 45 R.I. Gen. Laws § 45-39.1-5 (b)(3) also specifically authorizes municipal-owned water utilities to "provide a basic residential use rate for water use that is designed to make a basic level of water use affordable." 45 R.I. Gen. Laws § 45-39.1-5(a) states that the rates of municipal-owned water utilities shall be "adequate to pay for all costs associated with the municipal water supply."[330]

Therefore, similar to commission-regulated utilities, municipal-owned utilities seeking to implement low-income CAPs funded by rate revenues are not expressly prohibited from doing so, but they could face legal challenges rooted in the limiting statutory language articulated above. Additionally, cities in Rhode Island, which operate pursuant to individual municipal charters, may have more leeway with respect to establishing different rates among and within customer classes, but they also would be subject to any limitations found in individual municipal charters.

329. Id.
330. The statute goes on to provide a nonexclusive list of what may be included in such costs, but it does not reference any affordability programs. 45 R.I. Gen. Laws § 45-39.1-5(a).

South Carolina

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

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	4,961,119
Median Annual Household Income (2015):	$45,483
Poverty Rate (2015):	17.9%
Typical Annual Household Water and Wastewater Expenditures (2015):	$691

South Carolina has 585 community water systems (CWS), of which 304 are privately owned and 510 serve populations of 10,000 or fewer people.

276,138 people are served by privately owned CWS; 3,479,334 are served by government-owned CWS.

Estimated Long-Term Water Infrastructure Needs: $1.8 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Public Service Commission of South Carolina (PSC) regulates rates set by private water and wastewater companies under S.C. Code Ann. § 58-3-140.[331] The PSC does not regulate municipal-owned water and wastewater utilities.[332]

South Carolina also has an Office of Regulatory Staff which is a separate agency of the state with duties that include "concerns of the using and consuming public with respect to public utility services, regardless of the class of customer."[333] The Office of Regulatory Staff performs more of the advocacy and investigative functions of rate setting and is a party to every proceeding before the PSC, with the ability to provide testimony and make recommendations. S.C. Code Ann. Regs. 103-503 and 103-703 address rate setting for wastewater and water utilities, respectively, stating that each customer within a given classification, such as residential, commercial, or industrial, "shall be charged the same approved rate, including tap fees, as every other customer within that classification, unless reasonable justification is shown for the use of a different rate, and a contract."[334]

Thus, for commission-regulated utilities seeking to implement low-income customer assistance programs (CAPs) funded by rate revenues, they could potentially face legal challenges based on the requirement that customers in the same class be charged the same approved rate as every other customer within that classification. However, there may be some potential for commission-regulated utilities to show "reasonable justification … for the use of a different rate, and a contract" if they can demonstrate that a rate based on affordability concerns for low-income customers is reasonable.

Noncommission-Regulated Utilities

For noncommission-regulated utilities, there are no explicit limitations found in the general statutes. However, the South Carolina Supreme Court held in *Simons v. City Council of Charleston*[335] that the choice for how to collect rates "is within the discretion of the city council, and so long as the revenues it uses for the purpose named are derived from 'reasonable' rates, the court will not interfere with the discretion sought to be exercised." The court applied the requirement of "reasonable" rates to both commission-regulated and noncommission-regulated utilities, specifically holding that a waterworks utility is a "public utility, and it makes no difference whether such utility be operated by a municipality or by a private corporation. Both are bound by the rule of reasonableness."[336]

331. Under S.C. Const. art. IX, § 1, the General Assembly will provide "appropriate regulation of common carriers, publicly owned utilities, and privately owned utilities serving the public as and to the extent required by the public interest."
332. See S.C. Code Ann. § 58-5-30. In addition, the South Carolina PSC does not regulate public service districts or special purpose districts, county governments, or homeowner's associations (HOAs) if the HOA has obtained an exemption.
333. S.C. Code Ann. § 58-4-10.
334. S.C. Code Ann. Regs. 103-503.
335. Simons v. City Council of Charleston, 187 S.E. 545, 546-47 (S.C. 1936).
336. Id. at 547.

In sum, noncommission-regulated utilities in South Carolina seem to be bound only by reasonableness standards in rate setting. Thus, such utilities have broad authority to implement low-income CAPs funded by rate revenues. However, any such programs could be subject to challenges on the basis of reasonableness regardless of whether the programs are implemented by noncommission-regulated utilities or commission-regulated utilities.

South Dakota

Commission-regulated utilities	*N/A*
Noncommission-regulated utilities	⚠

State Population (2016):	865,454
Median Annual Household Income (2015):	$50,957
Poverty Rate (2015):	14.1%
Typical Annual Household Water and Wastewater Expenditures:	N/R

South Dakota has 454 community water systems (CWS), of which 215 are privately owned and 440 serve populations of 10,000 or fewer people.

South Dakota has 29 publicly owned treatment works facilities (POTWs), of which 26 treat 1 MGD or less.

172,601 people are served by privately owned CWS; 577,176 are served by government-owned CWS; and 215,655 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$0.9 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

South Dakota is one of only six[337] states in which private water and wastewater companies are not regulated by a state utility commission. Although private water and wastewater companies do operate in the state, they are generally very small and are not regulated by state law with respect to rates.

Government-owned water and wastewater utilities, including municipal systems and rural water districts, provide water and wastewater services to the majority of South Dakota's residents.

With respect to government-owned utilities, S.D. Codified Laws § 9-39-23 allows municipal utility boards to "fix reasonable rates, fees, and charges" for the services they provide.[338] S.D. Codified Laws § 9-40-15.1 further requires that the governing body of each municipal water or wastewater utility "shall establish and collect equitable rates, charges, or rentals for all services and benefits furnished."

Beyond this requirement, state statutes provide additional regulations for municipal wastewater districts. S.D. Codified Laws § 9-48-26 authorizes municipalities to establish charges for wastewater services by ordinance or resolution, and S.D. Codified Laws § 9-48-27 stipulates that "such charges shall be as nearly as may be in the judgment of the governing body equitable and in proportion to the services rendered." Additionally, S.D. Codified Laws § 9-48-29 stipulates that collected wastewater fees shall be used for "paying the cost of financing the operation, maintenance or construction of the sewer utilities."

With respect to other types of government-owned utilities, pursuant to S.D. Codified Laws § 7-25A-7(21), counties have the authority to establish improvement districts to acquire, construct, operate, and maintain water and wastewater utilities. Further, S.D. Codified Laws § 7-25A-7(15) authorizes the governing board of districts to establish user charges or fees necessary for the conduct of district activities and services, and S.D. Codified Laws § 7-25A-38 stipulates that such "rates, fees, rentals, and charges shall be just and equitable and uniform for users of the same class."[339]

There are, thus, no regulations in South Dakota that *explicitly* prohibit or authorize low-income customer assistance programs (CAPs) funded by customer revenues. However, if municipalities attempt to implement such programs for wastewater services, they may be subject to legal challenge based on a determination of whether or not the rates are "equitable and in propor-

337. The others are Georgia, Michigan, Minnesota, North Dakota, and the District of Columbia.

338. Pursuant to the same statute, "the board may adopt, by resolution, reasonable rules and regulations for utility services supplied by the municipally owned public utilities under its control and management." S.D. Codified Laws § 9-39-23.

339. This statute goes on to state that all rates and charges shall produce revenues, together with any other assessments, taxes, revenues, or funds available or pledged for such purpose, at least sufficient to cover operation and maintenance expenses, pay all bonds and interest charges, and provide for any other funds which may be required under the resolution or resolutions authorizing the issuance of bonds. However, it does not strictly limit the use of revenues for these purposes. S.D. Codified Laws § 7-25A-38.

tion to the services rendered."[340] Additionally, county-owned water and wastewater utilities may be limited in their ability to provide rate-funded low-income CAPs by the requirement that the rates and charges of these entities be "equitable and uniform for users of the same class."

340. In addition, 10 of South Dakota's 310 cities, including 5 of the 10 largest cities, operate pursuant to home rule charter. These cities likely have even more authority to establish low-income customer assistance programs.

Tennessee

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

Commission-Regulated Utilities

The Tennessee Regulatory Authority (TRA) regulates private water and wastewater companies. It gains its jurisdiction over such entities from Tenn. Code. Ann. § 65-4-104, § 65-5-110, and § 65-5-101.[341] TRA does not regulate municipal-owned water and wastewater utilities.[342]

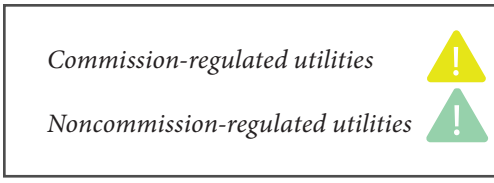
Commission-regulated utilities in Tennessee are prohibited from charging "unjust, unreasonable, unduly preferential or discriminatory" rates.[343] The TRA gains exclusive power to fix "just and reasonable rates" by Tenn. Code Ann. § 65-5-101. In addition, under Tenn. Code Ann. § 65-5-103, TRA has the power to review rate changes. Based on the statutory limitations articulated above, commission-regulated utilities would potentially need TRA approval to implement low-income customer assistance programs (CAPs) funded by rate revenues. Additionally, the prohibition on rates that are "unduly preferential or discriminatory" would likely hold the greatest potential for legal challenge to such programs.

Noncommission-Regulated Utilities

Municipal-owned water and wastewater utilities, not regulated by TRA, gain power to own and operate water and wastewater utilities and to charge rates for such utility services from Tenn. Code Ann. § 7-35-401. Additionally, under Tenn. Code Ann. § 7-35-414, the rates imposed by the municipalities must be "just and equitable."

Tenn. Code Ann. § 7-82-302 provides public utility districts with the power to own and operate water and wastewater utilities. With respect to rates, Tenn. Code. Ann. § 7-82-403 requires that rates implemented by the board of commissioners of a public utility district be "reasonable," and Tenn. Code. Ann. § 7-82-402 allows a customer to contest the rates before the board of commissioners on the basis that the rates are too high or too low and, therefore, unreasonable.[344]

Therefore, for government-owned water and wastewater utilities, the ability to implement low-income CAPs funded by rate revenues is limited only by the "just and equitable" rate requirement for municipalities and the "reasonableness" rate requirement for public utility



State Population (2016):	6,651,194
Median Annual Household Income (2015):	$45,219
Poverty Rate (2015):	17.6%
Typical Annual Household Water and Wastewater Expenditures (2015):	$504

Tennessee has 473 community water systems (CWS), of which 51 are privately owned and 340 serve populations of 10,000 or fewer people.

Tennessee has 253 publicly owned treatment works facilities (POTWs), of which 174 treat 1 MGD or less.

224,593 people are served by privately owned CWS; 6,517,803 are served by government-owned CWS; and 3,963,731 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$4.2 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

341. Under Tenn. Code Ann. § 65-4-101, public utilities are defined as "every individual, co-partnership, association, corporation, or joint stock company, its lessees, trustees, or receivers, appointed by any court whatsoever, that own, operate, manage or control, within the state, any water services."
342. Tenn. Code Ann. § 7-34-106, § 7-34-102.
343. Tenn. Code Ann. § 65-4-114, § 65-5-104.
344. Additionally, Tenn. Code. Ann. § 7-82-102 provides a rate review process to be applied in all counties or districts by a utility management review board. Specifically, the law allows for the review board to review the rates of a public utility district upon receipt of a petition signed by at least 10 percent of the public utility district's customers. However, the statute does not provide that the rates must fit any specified criteria, other than that they must be in compliance with the rules provided under the chapter addressing utility districts, which require only "reasonable" rates.

districts.

It is also worth mentioning that in its environmental health and safety statutes, Tennessee provides explicit protection for low-income customers who are directly affected by rate increases due to necessary changes and improvements to water and wastewater facilities to meet water quality standards. Specifically, Tenn. Code Ann. §68-221-1009 specifies the duties of wastewater financing boards, which assist with water and wastewater utilities' financing of efforts to meet water quality compliance goals. One such duty is to "[a]meliorate the burden of rate increases" due to such efforts, "borne by low-income customers of water systems and wastewater facilities through the establishment and administration of a rate subsidy program to the extent state appropriations are available."[345] Such a provision would help to protect low-income customers against major rate hikes due to the replacement of aging infrastructure, or replacement of pipes to assist with lead abatement.

345. Id.

Texas

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

Commission-Regulated Utilities

The Public Utility Commission of Texas (Texas PUC) regulates private water and wastewater companies pursuant to Tex. Water Code Ann. § 13.041. Texas PUC does not regulate municipal-owned water and wastewater utilities.

With respect to rates, under Tex. Water Code Ann. § 13.042, a municipality is given original jurisdiction over rates for any water or wastewater utility operating within its corporate boundaries, whether it is a private company or municipal-owned utility, so that those rates may be "fair, just, and reasonable." Under the same provision, municipalities may, by ordinance, elect to have the Texas PUC take original jurisdiction over rates set by private water and wastewater companies operating within their corporate boundaries.[346] Additionally, Texas PUC has original jurisdiction over rates set by municipal-owned utilities operating *outside* of the municipality's corporate boundaries.[347]

Under Tex. Water Code Ann. § 13.182, commission-regulated rates must be "just and reasonable" and cannot be "unreasonably preferential, prejudicial, or discriminatory, but shall be sufficient, equitable, and consistent in application to each class of consumers."[348] Additionally, Tex. Water Code Ann. § 13.189 prohibits commission-regulated utilities from granting "any unreasonable preference or advantage" to any person within any classification or from subjecting any person to any "unreasonable prejudice or disadvantage."

Commission-regulated utilities

Noncommission-regulated utilities 

State Population (2016):	27,862,596
Median Annual Household Income (2015):	$53,207
Poverty Rate (2015):	17.3%
Typical Annual Household Water and Wastewater Expenditures (2015):	$708

Texas has 4642 community water systems (CWS), of which 1,820 are privately owned and 4,308 serve populations of 10,000 or fewer people.

Texas has 551 publicly owned treatment works facilities (POTWs), of which 390 treat 1 MGD or less.

853,981 people are served by privately owned CWS; 25,560,008 are served by government-owned CWS; and 16,249,900 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$43.1 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Furthermore, a commission-regulated utility may not utilize "unreasonable differences as to rates of service either as between localities or as between classes of service." Finally, under Tex. Water Code Ann. § 13.190, commission-regulated utilities may not receive greater or lesser compensation for services than what is prescribed in the schedule of rates.

Thus, commission-regulated utilities seeking to implement low-income customer assistance programs (CAPs) funded by rate revenues must get approval from Texas PUC to utilize rates that differ from those prescribed in the rate schedule. Additionally, the language prohibiting the granting of any "unreasonable preference or advantage" to persons in the same service classifications is likely to hold the greatest poten-

346. Tex. Water Code Ann. § 13.042.

347. Under Tex. Water Code § 13.043, the Texas Public Utility Commission has appellate jurisdiction over rate decisions made for customers of (1) a nonprofit water supply or sewer service corporation created and operating under Chapter 67; (2) a utility under the jurisdiction of a municipality inside the corporate limits of the municipality; (3) a municipally owned utility, if the ratepayers reside outside the corporate limits of the municipality; (4) a district or authority created under Article III, Section 52, or Article XVI, Section 59, of the Texas Constitution that provides water or sewer service to household users; and (5) a utility owned by an affected county, if the ratepayer's rates are actually or may be adversely affected. For the purposes of this section ratepayers who reside outside the boundaries of the district or authority shall be considered a separate class from ratepayers who reside inside those boundaries.
Thus, for municipal-owned utilities, the municipality retains both original and appellate jurisdiction over rate challenges for rates within its corporate boundaries.

348. Furthermore, municipalities have to notify their customers in writing before they make any rate increases. Tex. Water Code Ann. § 13.045.

tial for legal challenges to such programs.

Noncommission-Regulated Utilities

As was mentioned above, noncommission-regulated utilities include private water and wastewater companies operating within a municipality's corporate boundaries for which the municipality has retained its original jurisdiction. Other than the general requirement that such rates should be "fair, just, and reasonable," municipalities have broad rate setting authority for such utilities. However, given the rights of customers to appeal any rate determinations to Texas PUC, the commission would still make the final determination as to whether a rate is allowable.

For municipal-owned utilities operating within corporate boundaries, Texas PUC does not have original or appellate jurisdiction over rates. Rather, under Tex. Loc. Gov't Code Ann. § 552.001, municipalities are granted authority to own and operate water and wastewater utilities in a manner that protects the interests of the municipality. In *Gillam v. City of Fort Worth*,[349] the Texas court held that "whether differences in rates between classes of customers of municipal water works are to be made, and, if so, the amount of the differences, are legislative rather than judicial questions and are for the determination of the governing bodies of the municipalities. The presumption is in favor of the legality of the rates established by the rate-making authority, and courts may interfere only in clear cases of illegality." The court further cited to an abundance of previous Texas case law in reiterating that "[i]t is well established that a municipal corporation operating its water works or other public utility has the right to classify consumers under reasonable classification based upon such factors as the cost of service, the purpose for which the service or product is received, the quantity or amount received, the different character of the service furnished, the time of its use or *any other matter* which presents a substantial difference as a ground of distinction."[350]

Thus, for private water and wastewater companies operating under a municipality's rate setting jurisdiction, the implementation of low-income CAPs funded by rate revenues would be subject to ultimate approval by Texas PUC, much as is the case with commission-regulated utilities. For municipal-owned utilities, their rate setting authority is broad, and the language of the courts suggests a strong deference to the municipality's legislative role in rate setting. Thus, unless a court were to find a low-income CAP to be clearly illegal or unreasonable, such a program would likely be permitted.

349. Gillam v. City of Fort Worth, 287 S.W.2d 494, 497 (Tex. App. 1956).
350. Id.

Utah

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

Commission-Regulated Utilities

Under Utah Code Ann. § 54-4a-1 and § 54-4-1, the Utah State Department of Commerce Division of Public Utilities (DPU) and the Utah Public Service Commission (PSC) regulate private water and wastewater companies. The DPU "makes recommendations to the Utah Public Service Commission for ratemaking purposes" and is an independent party representing the broad public interest.[351] The PSC ensures "safe, reliable, adequate, and reasonably priced utility service" and "conducts hearings and investigations of utility company operations in order to determine just and reasonable rates for service."[352] Neither the DPU nor PSC regulates the rates or services of government-owned water or wastewater utilities.

Objectives for the DPU are established under Utah Code Ann. § 54-4a-6, which stipulates that the DPU shall provide information and recommendations that allow the PSC to "provide for just, reasonable, and adequate rates" and to "prevent undue discrimination in rate relationships." Utah Code Ann. § 54-4-4.1 allows the PSC to adopt "any method of rate regulation that is…in the public interest, and just and reasonable."[353] Utah Code Ann. § 54-3-1 further defines the scope of "just and reasonable" as including but not limited to "the cost of providing service to each category of customer, *economic impact of charges on each category of customer*, and on the well-being of the state of Utah; methods of reducing wide periodic variations in demand of such products, commodities or services, and means of encouraging conservation of resources and energy."

Although these statutes provide some room for interpretation with respect to allowable rate models, Utah Code Ann. § 54-3-7 prohibits commission-regulated utilities from refunding any portion of rates, or extending to any person any form of agreement, or privilege "except such as are regularly and *uniformly* extended to all corporations and persons." Furthermore, Utah Code Ann. § 54-3-8 states that commission-regulated utilities may not "make or grant any preference or advantage to any person" with regard to rates, nor "establish or maintain any unreasonable difference as to rates... between classes of service." According to *Mountain States Legal Foundation v. Utah Public Service Commission*,[354] this includes extending a lower electrici-

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	3,051,217
Median Annual Household Income (2015):	$60,727
Poverty Rate (2015):	12.3%
Typical Annual Household Water and Wastewater Expenditures (2015):	$595

Utah has 473 community water systems (CWS), of which 154 are privately owned and 416 serve populations of 10,000 or fewer people.

Utah has 107 publicly owned treatment works facilities (POTWs), of which 84 treat 1 MGD or less.

95,168 people are served by privately owned CWS; 2,860,617 are served by government-owned CWS; and 1,111,777 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$4.5 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

351. "About the Division of Public Utilities," Utah State Department of Commerce Division of Public Utilities.
352. "History," Utah Public Service Commission.
353. See American Salt Co. v. W.S. Hatch Co., 748 P.2d 1060, 1063 (Utah 1987) (establishing that a just and reasonable rate as "one that is sufficient to permit utility to recover its costs of service and earn reasonable return for its enterprise").
354. Mountain States Legal Found. v. Utah Pub. Serv. Comm'n, 636 P.2d 1047, 1057 (Utah 1981). Specifically, the Utah Supreme Court held that although the legislature may not have flatly precluded "senior citizen rates" for electricity, the Public Service Commission's findings in support of a "senior citizen rate" were inadequate as a matter of law, where the commission's decision was based solely on the general proposition that senior citizens, on average, receive less gross income and consume less power than the general residential class. Id. at 1057.

ty service rate to senior citizens based only on evidence that senior citizens generally have lower incomes and generally use less electricity.

Thus, for commission-regulated utilities, the statutes prohibiting the granting of preferences or advantages in terms of rates, and the uniformity requirement articulated above, hold the greatest potential barriers to implementation of low-income customer assistance programs (CAPs) funded by rate revenues. However, the overarching language framing the rate setting role of the DPU and PSC appears to encourage consideration of the economic impacts of rates on low-income customers.

Noncommission-Regulated Utilities

As a home rule state, government-owned water and wastewater utilities in Utah have broad authority to set rates. The statute permitting municipalities to establish rates for water service, Utah Code Ann. § 10-8-22, is very terse, stating only that "they may fix the rates to be paid for the use of water furnished by the city." Utah Code Ann. § 10-7-14 further states that "every city and town may enact ordinances, rules and regulations for the management and conduct of the waterworks system owned or controlled by it." No state statutes prohibit other forms of government-owned utilities, such as water improvement districts, from providing low-income CAPs or cross subsidies.

Thus, with no limiting requirements for rate setting, government-owned utilities seem to have broad authority to implement low-income CAPs funded by rate revenues, subject to local law. As detailed in the U.S. EPA's 2016 compendium, *Drinking Water and Wastewater Utility Customer Assistance Programs*, the Granger-Hunter Improvement District, a water and wastewater utility serving approximately 120,000 customers in central Salt Lake County, currently offers a bill discount to income-qualifying service men and women serving full-time active military duty. In addition, Salt Lake City Public Utilities currently offers a bill discount CAP to customers who qualify for the Salt Lake County tax abatement program. Both of these programs are funded through consumer revenues.

Vermont

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

Commission-regulated utilities ⚠

Noncommission-regulated utilities ⚠

State Population (2016):	624,594
Median Annual Household Income (2015):	$55,176
Poverty Rate (2015):	11.5%
Typical Annual Household Water and Wastewater Expenditures:	N/R

Vermont has 420 community water systems (CWS), of which 243 are privately owned and 413 serve populations of 10,000 or fewer people.

Vermont has 87 publicly owned treatment works facilities (POTWs), of which 73 treat 1 MGD or less.

66,672 people are served by privately owned CWS; 383,585 are served by government-owned CWS; and 337,145 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$0.7 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Vermont Department of Public Service (PSD) and the Public Service Board (PSB) regulate private water companies in Vermont. Both entities gain jurisdiction over such companies from Vt. Stat. Ann. tit. 30, § 203(3). The PSD advocates for consumers and the public interest while making recommendations on all private water company petitions filed with the PSB, and the PSB has formal authority to grant, deny, or modify petitions of those companies. Government-owned water and wastewater utilities are exempt from regulation by the PSD or the PSB.

Under Vt. Stat. Ann. tit. 30, § 203(3), the PSB and PSD have general supervision over private water companies engaged in the collection, sale, and distribution of water for domestic purposes. Further, Vt. Stat. Ann. tit. 30, § 209, grants the PSB jurisdiction to hear, determine, render judgment, and make orders and decrees regarding rates "when unreasonable or in violation of law." Going into more detail regarding the nature of rates, Vt. Stat. Ann. tit. 30, § 218 provides that, "[w]hen, after opportunity for hearing, the rates, tolls, charges, or schedules are found unjust, unreasonable, insufficient, or unjustly discriminatory, or are found to be preferential or otherwise in violation of a provision of this chapter," the PSB may order and substitute just and reasonable rates.[355] Under the same statutory provision, the PSB is required to set certain telephone utility rates in order to enable the state to participate in the Federal Communications Commission's Lifeline program, which assists low-income customers with telecommunications bills.[356] Additionally, the statute further provides that the PSB, on its own motion or upon petition of any person, may approve a rate schedule that provides reduced rates for low-income electric utility consumers "better to assure affordability."[357] There is, however, no similar provision in the Vermont statutes providing for reduced rates for low-income water or wastewater customers.

Thus, for commission-regulated water utilities, any low-income customer assistance program (CAP) funded by rate revenues would need to be approved by the PSB. Additionally, such a program could be subject to legal challenges on the basis that the rates are "discriminatory" or "preferential."

Noncommission-Regulated Utilities

Municipalities[358] in Vermont, which are not regulated

355. See also Petition of Milton Water Corp., 218 A.2d 710, 713 (Vt. 1966) (holding that the Public Service Board has the power and duty to prevent unjust discrimination in rates charged by a public utility in this state and to substitute rates found to be just and reasonable for those found to be unjustly discriminatory).
356. Vt. Stat. Ann. tit. 30, § 218.
357. Vt. Stat. Ann. tit. 30, § 218.

358. Municipality is defined to include "a city, town, town school district, incorporated school or fire district or incorporated village, and all other governmental incorporated units." Vt. Stat. Ann. tit. 1, § 126.

by the PSD or the PSB, are permitted to establish rates for the supply of water under Vt. Stat. Ann. tit. 24, § 3311. Although the statutory language itself does not require that the rates meet any standard, the Vermont Supreme Court has interpreted this provision to mean that municipal-owned water utilities have "broad authority to determine what kinds of uses they will charge (such as, for example, reserved allocations), and whether they will charge based on annual fees or meter service."[359] Further, the court held "water rates are entitled to a presumption of reasonableness, and [the Court] will defer to the municipal corporation as long as the rates are nondiscriminatory, and are not arbitrary and capricious."[360] With respect to wastewater utilities, municipalities in Vermont are permitted to establish rates under Vt. Stat. Ann. tit. 24, § 3615. Although this statutory provision also does not provide any explicit standards for the rates, the Vermont Supreme Court has interpreted the language to require that the wastewater rates be "fair, equitable and reasonable."[361]

Therefore, for noncommission-regulated water utilities, their jurisdiction to set rates is broad, and their potential to implement low-income CAPs funded by rate revenues would likely be limited only by the requirement that rates must be reasonable, nondiscriminatory, and not arbitrary or capricious. Likewise, for noncommission-regulated wastewater utilities, their ability to implement such CAPs seems to be limited only by the requirement that rates be fair, equitable, and reasonable.

359. Vermont North Props. v. Vill. of Derby Center, 102 A.3d 1084, 1100 (Vt. 2014).
360. Id. (citing Handy v. City of Rutland, 598 A.2d 114, 118 (Vt. 1990)).
361. Handy v. City of Rutland, 598 A.2d 114, 118 (Vt. 1990).

Virginia

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

Commission-regulated utilities

Noncommission-regulated utilities

Commission-Regulated Utilities

The Virginia State Corporation Commission (SCC), established by the Virginia Constitution, regulates private water and wastewater companies.[362] The SCC does not regulate government-owned utilities.[363]

Under Va. Code Ann. § 12.1-12, the SCC is charged with the duty of regulating the rates, charges, services, and facilities of all private water and wastewater companies.[364] Additionally, Va. Code Ann. § 56-234 requires every commission-regulated utility to furnish reasonably adequate service and facilities at "reasonable and just" rates, further requiring such utilities to "charge uniformly all persons, corporations or municipal corporations using service under like conditions."[365] If, after an investigation, the SCC determines that the rates of any commission-regulated utility operating in the commonwealth are found to be "unjust, unreasonable, insufficient, or unjustly discriminatory" or to be "preferential or otherwise in violation of any provisions of law," under Va. Code Ann. § 56-235, the SCC shall have the power to fix and order "just and reasonable" rates.[366]

Thus, commission-regulated water and wastewater utilities seeking to implement low-income customer assistance programs (CAPs) funded by rate revenues could face legal challenges under the requirement that any rate classifications be uniform, or if the SCC determines that rates for low-income customers are preferential.

State Population (2016):	8,411,808
Median Annual Household Income (2015):	$65,015
Poverty Rate (2015):	11.5%
Typical Annual Household Water and Wastewater Expenditures (2015):	$818

Virginia has 1,127 community water systems (CWS), of which 590 are privately owned and 1,057 serve populations of 10,000 or fewer people.

Virginia has 232 publicly owned treatment works facilities (POTWs), of which 164 treat 1 MGD or less.

462,707 people are served by privately owned CWS; 6,490,561 are served by government-owned CWS; and 5,449,344 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$13.1 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Noncommission-Regulated Utilities

Localities[367] in Virginia operate under Dillon's Rule[368] Localities have jurisdiction to operate water supplies and water production, as well as preparation, distribution, and transmission systems and facilities, under Va. Code Ann. § 15.2-2143, which requires fees and charges to be "fair and reasonable." Additionally, Va. Code Ann. § 15.2-2119 states that fees and charges for water and wastewater services provided by localities

362. Va. Const. art. IX, § 1; Va. Code Ann. § 56-35.
363. Va. Code Ann. § 56-1.
364. See Po River Water and Sewer Co. v. Indian Acres Club of Thornburg, Inc., 495 S.E.2d 478, 481 (Va. 1998) (holding that the state constitution and Virginia code give the Virginia State Corporation Commission (SCC) a constitutional and statutory duty to fix just and reasonable public utility rates).
365. An exception is made in Va. Code Ann. § 56-234 for a public utility implementing a voluntary rate or rate design test or experiment, if it is approved by the SCC and if it is necessary to protect the public interest.
366. See Roanoke Gas Co. v. State Corp. Comm'n, 300 S.E.2d 785, 786-87 (Va. 1983) (holding that the question of whether adjustments should be made in a commission-regulated utility's rates is within the broad discretion of the SCC).

367. Locality is defined as a county, city, or town as the context may require. Additionally, municipality and municipal corporation are defined to relate only to cities and towns. Va. Code Ann. § 15.2-102.
368. See City of Richmond v. Confrere Club of Richmond, Virginia, Inc., 387 S.E.2d 471, 473 (Va. 1990) (holding that in Virginia, local governments "possess and can exercise only those powers expressly granted by General Assembly, those necessarily or fairly implied therefrom, and those that are essential and indispensable").

shall be "practicable and equitable."

In *Town of Leesburg v. Giordano*,[369] the Virginia Supreme Court addressed the process for challenging the rates imposed by a locality, holding that "setting rates and fees for [wastewater] and water services is a nondelegable legislative function" and that an ordinance establishing such rates is afforded a presumption of reasonableness. The courts have further held that legislative action is "reasonable" if the matter is "fairly debatable," which is achieved when "the evidence offered in support of the opposing views would lead objective and reasonable persons to reach different conclusions."[370] Additionally, the burden of proof for a locality proving that its rate legislation is fairly debatable is less than a preponderance of the evidence.[371] In *Town of Leesburg*, the town of Leesburg was charging a 100 percent surcharge to its out-of-town customers, which was challenged as unreasonable. The town presented bare bones testimony, which the court found sufficient to meet the low threshold of being "fairly debatable," and the rate structure was upheld.[372]

Thus, noncommission-regulated utilities have broad authority to set rates for water and wastewater services, limited only by the requirements that the rates be fair, reasonable, practicable, and equitable. Additionally, if a low-income CAP funded by rate revenues were challenged as unreasonable, the locality implementing the rates would only have to prove that the rates were reasonable under the "fairly debatable" analysis, discussed above.[373]

369. Town of Leesburg v. Giordano, 701 S.E.2d 783, 787-88 (Va. 2010).
370. Id. at 788.
371. Id.
372. Id. at 790-91.
373. Despite the seemingly broad rate setting authority for localities (compared to other states), high-profile customer assistance programs, such as Richmond's MetroCare Program, are funded by general fund appropriations rather than direct rate revenues, providing the city with additional protection.

Washington

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

Commission-regulated utilities	GO
Noncommission-regulated utilities	GO

State Population (2016):	7,288,000
Median Annual Household Income (2015):	$61,062
Poverty Rate (2015):	13.3%
Typical Annual Household Water and Wastewater Expenditures (2015):	$853

Washington has 2,265 community water systems (CWS), of which 1,620 are privately owned and 2,145 serve populations of 10,000 or fewer people.

Washington has 247 publicly owned treatment works facilities (POTWs), of which 175 treat 1 MGD or less.

625,241 people are served by privately owned CWS; 6,565,075 are served by government-owned CWS; and 5,928,671 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$13.2 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

The Washington Utilities and Transportation Commission (WUTC) regulates private wastewater companies and water companies that have 100 or more connections or that charge more than $557 a year per customer.[374] The WUTC does not regulate government-owned utilities.[375] Commission-regulated utilities can request approval from the WUTC to provide reduced rates to "low-income senior customers and low-income customers."[376] Under the same provision, "expenses and lost revenues as a result of these discounts shall be included in the company's cost of service and recovered in rates to other customers." Of additional importance, Wash. Rev. Code § 80.28.100 prohibits private water and wastewater companies from granting any special rate or rebate, or from receiving greater or less compensation from any person than is received from any other person for "doing a like or contemporaneous service with respect thereto under the same or substantially similar circumstances or conditions," except as authorized in Title 80 (above) of the statutes. Furthermore, Wash. Rev. Code § 80.28.090 prohibits any private water and wastewater company from granting any undue or unreasonable preference or advantage to any customer or from subjecting any customer to any undue or unreasonable prejudice or disadvantage.

Thus, despite the prohibitions against commission-regulated utilities granting discriminatory rates or granting preferences or advantages to certain customers, Wash. Rev. Code § 80.28.068 appears to give commission-regulated utilities express authorization to implement low-income customer assistance programs (CAPs) funded by rate revenues, so long as the WUTC grants them an exception to do so.

Noncommission-Regulated Utilities

Government-owned utilities, which are not regulated by the WUTC, are granted explicit authority to implement low-income CAPs funded by rate revenues.[377] Furthermore, the eligibility requirements for these programs are not defined by statute, which means that government-owned utilities can select their own criteria to determine which customers may access assistance.[378]

374. "Water," Washington Utilities and Transportation Commission.
375. The WUTC also does not regulate homeowner associations or persons providing water to their tenants as part of the business of renting or leasing.
376. Wash. Rev. Code § 80.28.068. The statute specifically addresses an "electrical or gas company," but it also provides for any "other party to a general rate case hearing" and its chapter title is "Gas, Electrical, and Water Companies." Id.
377. Wash. Rev. Code § 74.38.070. See also Wash. Rev. Code § 35.92.020(5) (for city and municipal-owned utilities), § 35.67.020(5) (for city wastewater services), § 36.94.140(4) (for counties).
378. However, to ensure uniformity in its determinations, the government-owned utilities or governing board of the area should set definitions that the utility can follow when determining eligibility. See "Utility Discounts and Financial Assistance Programs," Municipal Research and Services Center.

Cities, towns, and counties can also waive connection or tap fees for low-income customers, "pursuant to a program established by ordinance."[379] Furthermore, water and wastewater districts can adjust or delay rates for low-income customers, but they must publish such rates in their district and must offer the adjusted or delayed rates to all low-income customers in their service area.[380]

Thus, Washington statutes provide explicit authority for government-owned utilities to offer low-income CAPs funded by rate revenues, subject to various structural or procedural rules.

379. Wash. Rev. Code § 35.92.380, § 36.94.370.
380. Wash. Rev. Code § 57.08.014. In addition, government-owned utilities may allow deferred payment plans to customers with temporary financial difficulties, and water and wastewater authorities have statutory permission to solicit voluntary donations. See Wash. Rev. Code § 54.52.010, § 57.46.010.

West Virginia

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

Commission-regulated utilities

Noncommission-regulated utilities

State Population (2016):	1,831,102
Median Annual Household Income (2015):	$41,751
Poverty Rate (2015):	18.0%
Typical Annual Household Water and Wastewater Expenditures:	N/R

West Virginia has 468 community water systems (CWS), of which 113 are privately owned and 444 serve populations of 10,000 or fewer people.

West Virginia has 266 publicly owned treatment works facilities (POTWs), of which 230 treat 1 MGD or less.

477,528 people are served by privately owned CWS; 1,035,168 are served by government-owned CWS; and 1,095,860 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs: $4.3 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Commission-Regulated Utilities

All water and wastewater service providers are regulated to some extent by the Public Service Commission of West Virginia (WVPSC). The WVPSC regulates any person, persons, association, or municipality engaged in the business of producing, furnishing, transporting, distributing, or selling water for any purpose held to be a public service.[381] However, W. Va. Code § 24-1-1(j) further provides that "water and [wastewater] utilities that are political subdivisions of the state providing separate or combined services and having at least four thousand five hundred customers and annual gross revenues of $3 million or more are most fairly and effectively regulated by the local governing body with respect to rates."[382] Thus, the WVPSC regulates all private water companies and government-owned water and wastewater utilities in West Virginia but has limitations on its jurisdiction over rates set by government-owned water and wastewater utilities meeting certain size and revenue thresholds.

Under W. Va. Code § 24-3-2, all commission-regulated utilities are prohibited from granting any special rate, rebate, or drawback, as well as from receiving a greater or less compensation than it receives or offers to any other person "for doing a like and contemporaneous service under the same or substantially similar circumstances and conditions." Additionally, commission-regulated utilities are prohibited from giving any "undue or unreasonable preference or advantage" to any customer or from subjecting any customer to any "undue or unreasonable prejudice or disadvantage."

However, the same provision, W. Va. Code § 24-3-2(b), states that the anti-discrimination constraints articulated above should not be construed to prevent the WVPSC from "[a]uthorizing a private water utility to voluntarily implement a rate design featuring reduced rates and charges for service to qualifying low-income residential customers." Specifically, in accordance with W. Va. Code § 24-2A-5, reduced rates can be offered to private water company residential customers who receive any of the following benefits:
Social Security Supplemental Security Income (SSI)
Temporary Assistance for Needy Families (TANF)
Temporary Assistance for Needy Families-Unemployed Parent Program (TANF-UP)
Assistance from the Supplemental Nutrition Assistance Program (SNAP), if they are 60 years of age or older.[383]

381. W. Va. Code § 24-1-2.

382. The statute further limits the Public Service Commission of West Virginia's regulatory jurisdiction over such government-owned water and wastewater utilities to that provided expressly in the rest of Chapter 24 of the West Virginia statutes.

383. The reduced rate is required to be a set percentage not more than 20 percent less than the regular rate. W. Va. Code § 24-2A-5. Rates cannot be lowered for otherwise qualifying people if they are living in the house of a person who does not qualify. W. Va. Code § 24-2A-5. Of additional importance, West Virginia allows for a tax credit to "water utilities" that offer services at reduced rates to qualified low-income residential customers. W. Va. Code § 11-13-3f.

Thus, all commission-regulated water and wastewater utilities are subject to the same anti-discrimination language, which could provide a basis for a legal challenge to low-income customer assistance programs (CAPs) funded by rate revenues. However, an exception is carved out which gives private water companies direct authority to implement such CAPs.

Noncommission-Regulated Utilities

As was previously mentioned, government-owned water and wastewater utilities that have at least 4,500 customers and annual combined gross revenues of $3 million or more have authority to set their own rates. Specifically, W. Va. Code § 24-2-3 provides that such government-owned water and wastewater utilities may establish their own rates, provided that in the event that the WVPSC determines after a hearing that such rates are "unjust, unreasonable, insufficient, or unjustly discriminatory," the commission may fix by order "reasonable" rates.

Additionally, under W. Va. Code § 24-2-4b(b), all rates set by noncommission-regulated government-owned water and wastewater utilities "shall be just, reasonable, applied without unjust discrimination between or preference for any customer or class of customer and based primarily on the costs of providing these services." Additionally, the same statute provides that "[a]ll rates and charges shall be based upon the measured or reasonably estimated cost of service and the equitable sharing of those costs between customers based upon the cost of providing the service received by the customer, including a reasonable plant-in-service depreciation expense."

In sum, government-owned water and wastewater utilities not regulated by the WVPSC with respect to rates would be most limited in their ability to implement low-income CAPs by the language requiring that rates be based on cost of service and by the prohibition against using unjust preferences for any customer or class of customers.

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 ⚠

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.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$12.9 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

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.[384] 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 rates and service to any city, village or town where light, heat or water is furnished to the city, village or town under any contract or arrangement, to the same extent that the public service commission has jurisdiction where that service is furnished directly to the public."

Additionally, the PSCW regulates 5 of the almost 600 wastewater utilities in Wisconsin.[385] Wis. Stat. § 196.03 requires that the charges made by any public utility be "reasonable and just." Wis. Stat. § 196.22 further requires that no public utility may charge more or less compensation for any service rendered than it charges, demands, collects, or receives from any other person for a like service. Wis. Stat. § 196.604 prohibits any person from knowingly soliciting or receiving "any rebate, concession, or discrimination from a public utility." Finally, Wis. Stat. § 66.0809 requires that municipal public utility rates must be "uniform for like service in all parts of the municipality."

Although the Wisconsin courts have not answered the exact question of whether a low-income customer assistance program (CAP) funded by rate revenues would be allowed under the strong statutory language laid out above, in 2002, the court ruled against a similar type of subsidization. In *City of Madison v. Pub. Serv. Comm'n of Wisconsin*, the court reviewed a PSCW denial of Madison's request for a rate increase, which would have been used to subsidize the cost of replacing the remaining customer-owned lead laterals in the city.[386] The court held that "review of the [PSCW's] decision is limited to determining whether it was arbitrary or capricious and whether the [PSCW's] findings of fact are supported by substantial evidence

384. Wisconsin is the only state in which all municipal-owned water utility rates are regulated by a state utility commission.

385. Wis. Stat. § 66.0819(3) provides that a city, town, or village which owns both a water utility and a wastewater utility may by ordinance consolidate the utilities into a "single public utility," which is then regulated by the Public Service Commission of Wisconsin (PSCW).

386. City of Madison v. Pub. Serv. Comm'n of Wisconsin, 644 N.W.2d 293 (Wis. Ct. App. 2002).

in the record."[387] Thus, the PSCW had only to prove that it had a rational basis for denying the city's request. 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."[388] The court found that the PSCW's conclusion was rational and, therefore, upheld its denial of the rate request.

Thus, considering the strong statutory language that prohibits commission-regulated utilities from charging different rates to customers receiving similar services, as well as a relatively recent case that highlights how both the PSCW and state courts interpret such statutory requirements, it is unlikely that commission-regulated utilities can currently implement low-income CAPs funded by rate revenues.

Noncommission-Regulated Utilities

The PSCW does not regulate *most* wastewater utilities in Wisconsin. According to the PSCW, wastewater utility regulation is primarily a "voluntary decision on the part of the municipality."[389] Instead, under Wis. Stat. § 66.0821, local governing bodies are responsible for setting rates for noncommission-regulated wastewater utilities.[390] However, if there are customer complaints or rate disputes against any wastewater utility, the PSCW has the authority to get involved, per Wis. Stat. § 66.0821(5)(a).[391] Specifically, the statute provides that when a customer complains to the PSCW that rates are unreasonable or unjustly discriminatory, the PSCW shall hold a public hearing. If the PSCW then determines that the rates *are* unreasonable or unjustly discriminatory, it shall fix and impose just and reasonable rates.

Thus, although given much broader freedom to set its own rates, a noncommission-regulated wastewater utility which implements a low-income CAP funded by rate revenues could still face a potential challenge on the basis that the program results in rates that are unreasonable or unjustly discriminatory, and it would subsequently have to contend with a PSCW determination on such a challenge.

387. Id.
388. Id.
389. "Does the PSC regulate sewer utilities?," Public Service Commission of Wisconsin.
390. Although private wastewater companies would be regulated by the PSCW, there are no such companies currently in Wisconsin.
391. "Introduction to Water Rates," Public Service Commission of Wisconsin (2015).

Wyoming

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

Commission-Regulated Utilities

The Wyoming Public Service Commission (WPSC) currently regulates the rates and services of private water companies. The WPSC does not regulate wastewater utilities, municipal-owned utilities,[392] or water and wastewater districts.[393]

With respect to commission-regulated utilities, Wyo. Stat. Ann. § 37-3-101 requires WPSC to establish rates that are "just and reasonable." Wyo. Stat. Ann. § 37-2-121 further maintains that rates cannot be "inadequate or unremunerative,[394] or . . . unjustly discriminatory, or unduly preferential." However, this statute also allows commission-regulated utilities to "apply to the commission for its consent to use innovative, incentive or nontraditional rate making methods" and further states that "the commission may consider and approve proposals which include any rate, service regulation, rate setting concept, economic development rate, [or] service concept . . . which can be shown by substantial evidence to support and be consistent with the public interest."[395] Additionally, Wyo. Stat. Ann. §37-3-101 prohibits public utilities from charging different rates for the same service except that the commission may determine that rates may vary depending on "the need for universally available and affordable service."[396]

Thus, commission-regulated utilities could potentially implement low-income customer assistance programs (CAPs) funded by rate revenues, if such programs are approved by WPSC as meeting "the need for universally available and affordable service."

Commission-regulated utilities

Noncommission-regulated utilities

State Population (2016):	585,501
Median Annual Household Income (2015):	$58,840
Poverty Rate (2015):	11.5%
Typical Annual Household Water and Wastewater Expenditures (2016):	$864

Wyoming has 316 community water systems (CWS), of which 195 are privately owned and 307 serve populations of 10,000 or fewer people.

Wyoming has 96 publicly owned treatment works facilities (POTWs), of which 83 treat 1 MGD or less.

64,769 people are served by privately owned CWS; 402,845 are served by government-owned CWS; and 398,244 are served by POTWs.

Estimated Long-Term Water and Wastewater Infrastructure Needs:	$0.5 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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

Noncommission-Regulated Utilities

Wyoming cities, towns, and counties largely operate under general law, meaning that their powers are limited to those expressly provided by the state legislature. Pursuant to Wyo. Stat. Ann. § 15-7-401, cities and towns that operate water or wastewater utilities may establish a board of commissioners, and Wyo. Stat. Ann. § 15-7-407 and § 15-7-508 expressly provide the board with authority to fix rates for water and wastewater services. Wyo. Stat. Ann. §15-7-509 states that charges by cities and towns for wastewater services "shall be fixed at a rate which equitably distributes cost among users." However, Wyo. Stat. Ann. § 15-7-407 states that boards of municipal-owned water and

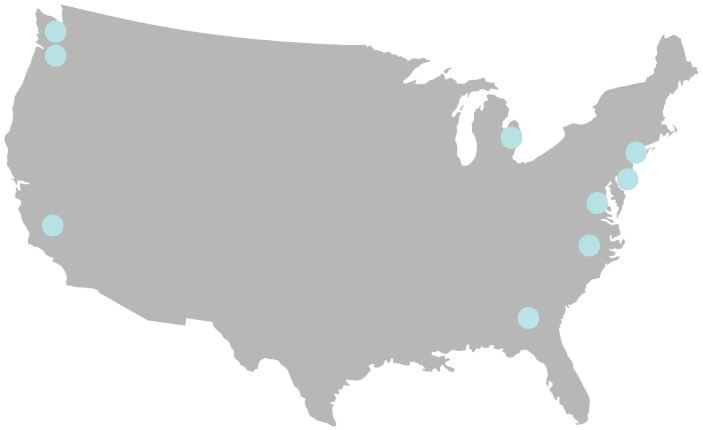
392. Wyo. Stat. Ann. § 37-1-101 defines municipality as any "town, city, county, or other political subdivision of the state."
393. Wyo. Stat. Ann. § 37-1-101(a)(vi)(H).
394. Unremunerative means bringing little or no profit or income.
395. Wyo. Stat. Ann. § 37-2-121.
396. Great Western Sugar Co. v. Johnson, 624 P.2d 1184, 1187 (Wyo. 1981)(finding that for commission-regulated utilities, "rates for all classes need not be the same, and mere fact that rates are different does not of itself reflect unfair discrimination or preferential treatment"). However, the rate difference in question was charged to cover additional cost of service attributable to a specific customer class.

wastewater utilities are allowed to fix special rates for "the governing body of the city or town for public purposes, or to organized institutions of charity, or to any person who is eligible for assistance under W.S. 39-11-109(c)(ii) through (vii)," which includes elderly and disabled customers meeting income and asset eligibility requirements, but not all low-income customers.

Thus, municipal-owned utilities have express authority to provide low-income CAPs for elderly and disabled customers who meet asset and income eligibility requirements.[397] State statutes do not expressly authorize water and wastewater districts and utilities operated by counties in Wyoming to provide low-income CAPs funded by customer revenues. Because these utilities operate under general law, they may not be able to provide such programs.

397. Currently, the City of Evanston, which operates under general law, offers a bill discount program to any principal resident who is 65 years and older, with no income or asset requirements. (This appears to contradict the asset eligibility requirements put forth in Wyo. Stat. Ann. § 39-11-109(c)(ii)–(vii).).

Case Studies



Case Study #1: City of Atlanta Department of Watershed Management, Georgia

Care and Conserve: The Progression Towards Using Rate Revenues for an Affordability Program

Background

Atlanta has among the highest water and wastewater rates in the country. Pricing is influenced by decades of infrastructure rehabilitation needs and two related federal consent orders. The Care and Conserve program was established in 1995.[398] The City of Atlanta Department of Watershed Management (DWM) also has a senior discount program for customers older than 65 with a maximum annual income of $25,000.[399] Over time, the city has developed new sources of funding for its affordability program, including the use of rate revenues beginning in 2013.

About the DWM

Atlanta's DWM was formed in 2002 to manage drinking water, wastewater, and stormwater utilities. The city provides water services to approximately 1.2 million people (more than 150,000 active accounts) and wastewater services to approximately 712,000 people (89,000 active accounts). Atlanta's service area covers approximately 650 square miles. Care and Conserve, the city's low-income customer assistance program (CAP), serves approximately 450 low-income customers annually.[400] Atlanta bills on a monthly basis, and bills are combined for drinking water and wastewater.

About Care and Conserve

Care and Conserve provides both financial assistance and plumbing repairs to low-income customers. The eligibility criteria include the customer having an income of 200 percent (plus $500) of the poverty index as defined by the Federal Office of Management and Budget.[401] The city previously worked with a nonprofit partner, but since 2015 all financial payment assistance eligibility is processed in-house by DWM. The financial assistance program includes **water loss adjustments**, in the form of leak vouchers up to $3,000. **Temporary assistance** is also provided in the form of bill payment assistance of up to $1,000. The total amount of assistance per customer is determined on a case-by-case basis.

The plumbing assistance program provides free leak detection and repair and replaces high-flow fixtures that may lead to high water bills. Relevant limits, such as no more than two low-flow toilets installed, are imposed. Also, any repairs exceeding $2,500 must receive special permission by the department before proceeding.

Legal Framework

The Georgia statutes and state constitution provide for broad rate setting authority, however, the Gratuities Clause[402] of the Georgia Constitution has raised concern about the ability of water and wastewater utilities in the state to use rate revenues to fund low-income CAPs. Perhaps due to this concern, rate revenues was not an original source of funding for Care and Conserve. From 1995 until around 2010, the financing sources for the program were private donations, foundation grants, Community Development Block Grants, and eventually revenues from cellular tower leasing.[403] Around 2011, royalties from the service line warranty program, as well as customer donations through the bill payment process, were added as financing sources. Since then, strong business arguments have been incorporated into the city codes for why financing Care and Conserve from rate revenues does not violate the Gratuities Clause. In 2013, the city code was amended to allow "water and sewer revenues of the City's drinking water and wastewater system" to fund Care and Conserve.[404] As a result, in 2016, $1 million was added to Care and Conserve from the city's water and wastewater revenue (via the renewal and extension fund).[405] The specific "findings" in this city

398. http://www.southeastenergy.org/programs/
399. http://www.atlantawatershed.org/how-do-i/get-a-senior-citizen-discount/
400. Pers. comm. with Maisha Land, Director, Care and Conserve Program, City of Atlanta (March 3, 2017).

402. Ga. Const. art. IX, § 1, par. VIII.
403. http://www.efc.sog.unc.edu/sites/www.efc.sog.unc.edu/files/CustomerAssistance_Langston.pdf
404. http://atlantacityga.iqm2.com/Citizens/FileOpen.aspx?Type=4&ID=1406
405. http://atlantacityga.iqm2.com/Citizens/FileOpen.aspx?Type=4&ID=21433

ordinance lay the groundwork for defending against the Gratutities Clause criticism. The ordinance outlines how assisting low-income customers provides a "direct and substantial benefit to the drinking water and wastewater system" by retaining customers, reducing bad debt, and so forth. It states that this low-income CAP enhances the city's ability to operate utilities in "an economical manner and on a revenue producing basis." The city estimates that the financial assistance portion of Care and Conserve collects approximately $14,000 of customer revenue for every $42,000 of bill payment assistance issued on approved past due Care and Conserve accounts.[406]

Apart from making the financial case for an affordability program, in Atlanta City Code § 6-306, the city establishes its authority to "annually appropriate and donate money, derived from taxation, contributions, or otherwise, for and to any corporation, company, association, or institution **for purely charitable purposes**."[407]

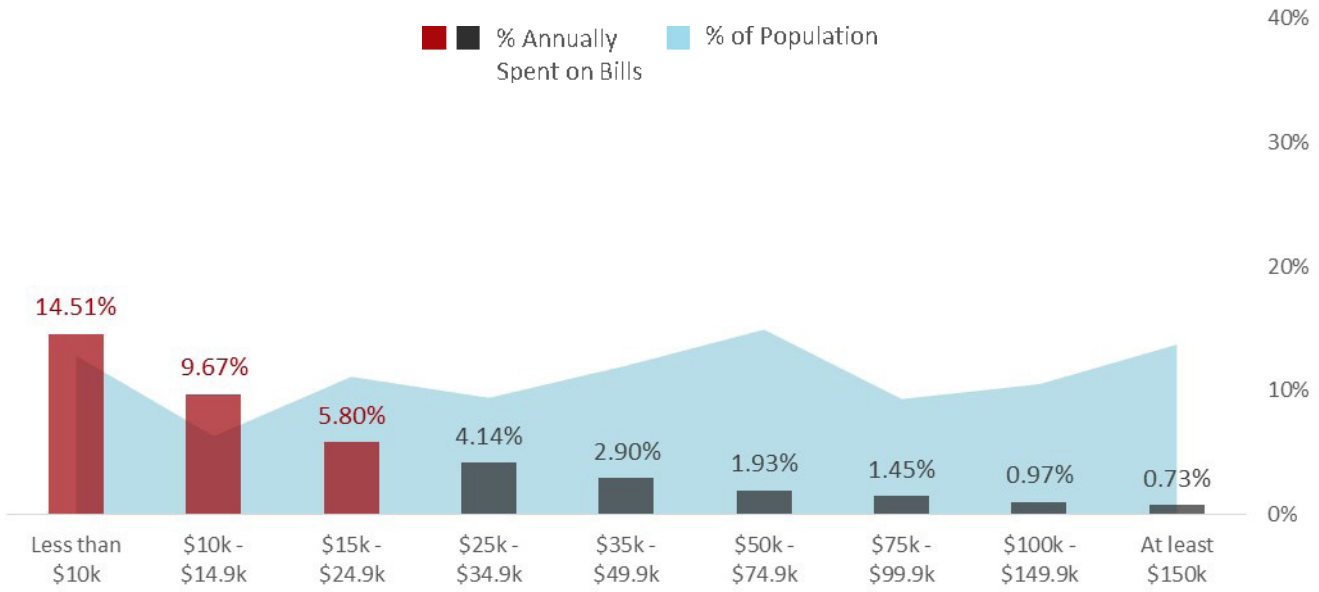
This has been used to further defend Care and Conserve's use of rate revenues against concerns related to the Gratuities Clause, since it allows the City to use the funds for "charity."

Affordability Assessment for Atlanta

Figure 4. shows the household income distribution of Atlanta in blue, with the percentage of income residential customers with different incomes would spend on water if they used 5,000 gallons/6.7 ccf. For example, a customer in the $10,000–$14,999 bracket will spend at least 9.67 percent of their income on water and wastewater services.

Figure 4. Affordability of Water & Wastewater Rates in Atlanta Assessed at 5,000 Gallons/ Month and 2015 Income Levels*

Under 2017 Rates



* These charts were generated from the "Water and Wastewater Residential Rates Affordability Assessment Tool" created by the Environmental Finance Center at UNC Chapel Hill. This free tool can be accessed at http://www.efc.sog.unc.edu/reslib/item/water-wastewater-residential-rates-affordability-assessment-tool

406. Pers. Comm. with Maisha Land-Wood.
407. http://www.atlantaga.gov/modules/showdocument.aspx?documentid=10018

The following table 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 averages.

Figure 5. Affordability for Low-Income Customers in Atlanta

	Atlanta, 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 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 Stamps/SNAP benefits	**17.5%**	15.2%	13.0%

Sources:

- U.S. Census Bureau's American Community Survey, obtained from American FactFinder, Income tab, Selected Economic Characteristics table from American Community Survey.
- U.S. Census Bureau's American Community Survey, obtained from American FactFinder, B25118: Tenure By Household Income In The Past 12 Months.
- Atlanta Department of Watershed Management, 2016 Water-Sewer Rates Fact Sheet

Case Study #2: California Water Service, California

Low-Income Rate Assistance: Funding Low-Income Customer Assistance Programs with Rate Surcharges

Background

California may have the most complex water customer assistance legal environment of any state in the country. It is one of the few states in the country that has formally recognized and advocated for the "human right to water."[408] Conversely, it is also one of the few states where perceived limitations on creating certain types of government-owned utility customer assistance programs (CAPs) are set forth in the state constitution rather than in general statutes. Finally, California is one of the few states where the state's utility commission, California Public Utilities Commission (California PUC), actively "encourages" its large private water and wastewater companies to create comprehensive rate-funded assistance programs, which has led to the creation of many of the country's largest rate funded CAPs. Programs, such as Low-Income Ratepayer Assistance (LIRA) established by California Water Service (Cal Water), currently provide recurring financial assistance to thousands of low-income customers across the state.

About Cal Water

Cal Water is the largest private water company in California and the third largest publicly traded private water company in the country. It provides almost 500,000 customer accounts with water across approximately 20 separate service areas (districts) throughout California.[409] The utility is regulated by the California PUC, which must review and approve all of its rates and rate-supported programs. Cal Water collected $541,795,000 in revenue from its customers in 2015.[410] Cal Water's largest district, Bakersfield, generated more than $70 million in revenue and its smallest district, Grand Oaks, generated $18,873. Cal Water primarily provides water service to its customers who depend on on-site systems or municipalities and other wastewater agencies to provide wastewater services to their customers.

About LIRA

As of 2015, 87,105 (18 percent) of Cal Water's 472,658 customer accounts were enrolled in LIRA.[411] LIRA customers receive a fixed monthly discount equal to 50 percent of the 5/8 x ¾-inch meter service charge for their district. For example, LIRA customers in Bakersfield receive a credit of $7.90 each month equal to 50 percent of the district's $15.79 base charge.[412] Each district has its own approved rate schedule in place and, therefore, its own unique LIRA discount. Base charges for districts range from approximately $10.00 to over $50.00.[413] LIRA customers must complete an enrollment application and must recertify their eligibility every two years (every four years if handicapped or elderly).[414]

Eligibility for LIRA is linked to eligibility for other social assistance programs, such as the Low Income Home Energy Assistance Program and National School Lunch Program. In addition, LIRA applicants must declare their income in order to certify that they meet additional income requirements based on the size of their family. For example, a family of four must have an income less than $48,600. Cal Water maintains a centralized administrative unit to process applications and manage the program.

LIRA is funded through a California PUC approved surcharge or tariff paid by all of Cal Water's customers who are not enrolled in LIRA. Cal Water reported collecting approximately $12 million in surcharges through the LIRA tariff in 2015.[415] The approved surcharge as of January 2017 is calculated as 1.542 percent of the "basic water charge" a customer pays, which consists of their base service charge and variable charge for usage.[416]

408. https://www.law.berkeley.edu/files/Water_Report_2013_Interactive_FINAL(1).pdf
409. Prior to 2011, Cal Water had 24 ratemaking areas. Starting in 2011, there were 23. As of 2017, they now have 20.
410. 2015 California Water Service's Annual Report to the CPUC
411. 2015 California Water Service's Annual Report to the CPUC; "Customer accounts" includes both residential and non-residential accounts, but only residential customers can qualify for LIRA.
412. Retrieved from California Water Service website: Residential Metered Service Bakersfield
413. https://www.calwater.com/rates/rates-and-tariffs/
414. LIRA Application
415. 2015 California Water Service's Annual Report to the CPUC
416. Approved California Water Service LIRA Rate Schedule, Advice Letter No 2242, Decision D.16-12-042

Legal Framework

As was already mentioned, private water and wastewater companies in California are regulated by California PUC. Under Cal. Pub. Util. Code § 739.8, there is express statutory authorization for commission-regulated utilities to create low-income CAPs. Prior to implementing such CAPs, however, utilities must obtain approval from the commission to change rates. Currently all large private water companies in California have low-income CAPs. In stark contrast, recent constitutional amendments in California have been interpreted to limit government-owned utilities from using rate revenues to subsidize low-income CAPs. Thus, many government-owned utilities have opted to seek outside funding for CAPs to avoid potential legal challenges.

Affordability Assessment for Cal Water

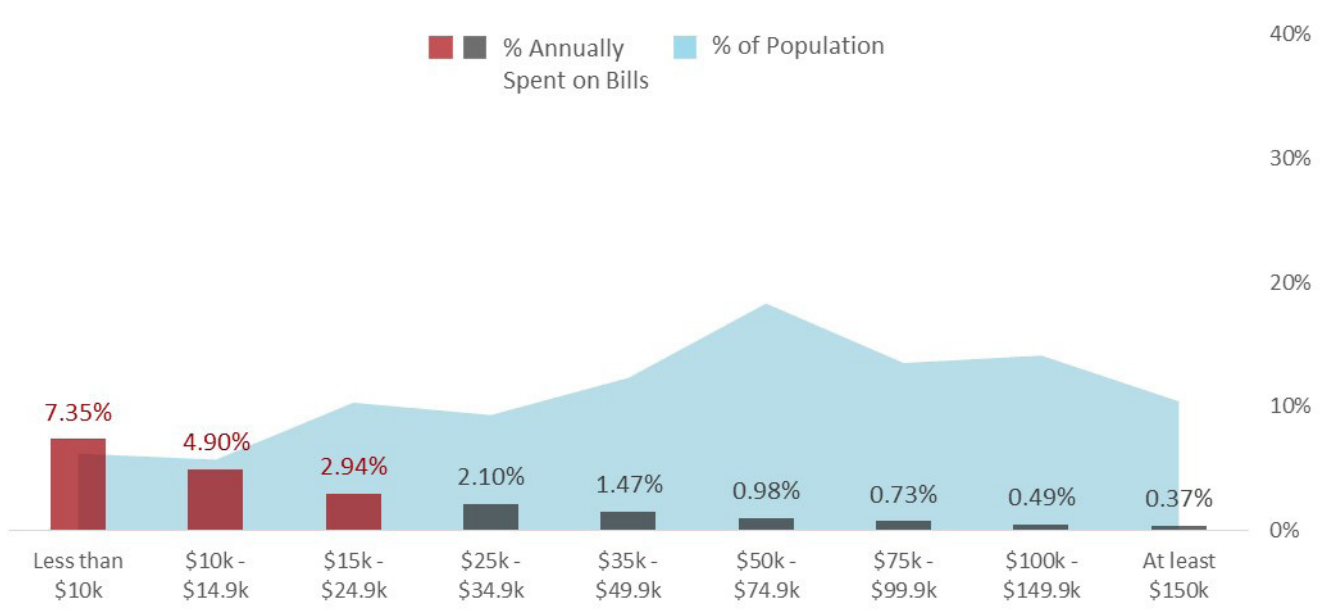
Cal Water has customers in communities across the state. Each community has its own unique rate structure.

The following affordability assessment focuses on Bakersfield because, as of 2015, it has the largest total number of customers (70,780) and the largest enrollment in LIRA (19,955).[417]

Affordability Assessment for Bakersfield without LIRA

Figure 6 shows the household income distribution of Bakersfield in blue, with the percentage of income residential customers with different incomes would spend on water if they used 11,200 gallons/15 ccf.[418] For example, a customer in the $10,000–$14,999 will spend at least 4.90 percent of income on water and wastewater services.[419, 420, 421]

Figure 6. Affordability of Water & Wastewater Rates in Bakersfield Assessed at 5,000 Gallons/ Month and 2015 Income Levels*



* These charts were generated from the "Water and Wastewater Residential Rates Affordability Assessment Tool" created by the Environmental Finance Center at UNC Chapel Hill. This free tool can be accessed at http://www.efc.sog.unc.edu/reslib/item/water-wastewater-residential-rates-affordability-assessment-tool

417. 2015 California Water Service's Annual Report to the CPUC
418. Representative customer use estimate from email Communication with California Water Service, May 10th, 2017
419. California Water Service website
420. Retrieved from American Fact Finder website, American Community Survey 2015: Bakersfield City, California
421. Retrieved from Bakersfield City Website: Sewer Billing

The following table shows key socioeconomic indicators for Bakersfield, 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 averages.[422]

Figure 7. Affordability for Low-Income Customers in Bakersfield

	Bakersfield, California in 2015	California in 2015	United States in 2015
Median Household Income	**$57,095**	$49,342	$53, 482
% Unemployment	**7.1%**	6.7%	5.8%
% Not in labor force	**35.3%**	36.7%	36.1%
% of all people with income below poverty	**19.8%**	18.5%	15.6%
% with Social Security income	**22.6%**	27.0%	29.3%
% with Supplemental Security income	**6.9%**	5.2%	5.3%
% with cash public assistance income	**5.4%**	1.9%	2.8%
% with Food Stamps/SNAP benefits	**14.0%**	15.2%	13.0%

Affordability Assessment for Bakersfield with LIRA

With LIRA, a typical eligible customer (11,200 gallons/15 ccf) will save $93.90 a year. Without the LIRA program, about 61 percent of the household customers will spend at least 2 percent of their income on water and wastewater services. With the LIRA program, about 52 percent of the households will spend at least 2 percent of their income on water and wastewater services.[423]

Sources:

- U.S. Census Bureau's American Community Survey, obtained from American FactFinder, Income tab, Selected Economic Characteristics table from American Community Survey.
- U.S. Census Bureau's American Community Survey, obtained from American FactFinder, B25118: Tenure By Household Income In The Past 12 Months.
- 2015 California Water Service's Annual Report to the California Public Utilities Commission.
- City of Bakersfield, Sewer Billing

422. American Fact Finder website, American Community Survey
423. LIRA Application

Case Study #3: Camden County Municipal Utilities Authority, New Jersey

Host Benefit for Camden City Residents

Background

Currently, municipal- and county-owned utilities in New Jersey are limited to providing low-income customer assistance to elderly and disabled residents who meet certain income requirements.[424] To provide a discount to a larger group of low-income customers, the Camden County Municipal Utilities Authority (CCMUA) implemented a "host community benefit" in the form of a bill discount for residents of Camden, the city where the utility's primary wastewater treatment plant is located.[425]

About CCMUA

CCMUA is a county-owned utility that provides wastewater services to the approximately 510,000 residents within Camden County. The county is located in the southwestern portion of New Jersey, across the Delaware River from Philadelphia, covering 226 square miles and containing 37 municipalities. The northwestern part of Camden County is part of the Delaware Basin, where water flows into the Delaware River via several large tributaries. This part of the county is densely populated and urban or industrial (or both). Camden, the county seat, is located at the northwestern tip of the county and is home to CCMUA's primary wastewater treatment plant, which treats 58 million gallons of wastewater per day. CCMUA send its customers a quarterly stand-alone bill for wastewater services. In Camden, nearly 40 percent of the population lives below the poverty line.

About the Host Community Benefit

New Jersey state law allows county- and municipal-owned wastewater authorities with treatment plants that are located within a city's boundaries to negotiate a host community benefit for residents and qualified entities within the city. Consistent with this law, CCMUA recently entered into a special arrangement with Camden to provide a host benefit in the form of a bill discount to city residents. Under this arrangement, CCMUA charges all Camden residents $220 per household per year for sewerage services, while charging the rest of Camden County $352 for the same services.

Although the host community discount benefits all Camden residents (including affluent residents), as demonstrated by the socioeconomic data in the charts that follow, Camden is one of the most economically challenged cities in the country. Therefore, providing the benefit in this manner comes very close to providing rate relief on an income basis, since the current host community benefit has the net effect of subsidized rates for a substantial number of low-income households.

CCMUA is able to provide this rates subsidy through the host community benefit based on the following:

- The utility implemented an environmental management system in order to improve efficiency and lower operations and maintenance costs. It also utilized the state revolving fund's low-interest loans in order to reduce the annual debt service costs on its capital expenses. As a result, CCMUA had the financial flexibility to provide the host community benefit to Camden residents without having to raise rates for the other 36 suburban municipalities in the county
- The distribution system has no direct benefit to Camden. Although CCMUA's regional wastewater treatment plant is located in Camden, the regional wastewater system that the CCMUA built to bring the wastewater flow from its other 36 suburban municipalities to the treatment plant does not benefit Camden. Thus, CCMUA reasoned that Camden should not participate in the full cost of operation and maintenance, or the full cost of debt service, of the utility.[426] CCMUA estimates that the percentage of operation and maintenance costs, and debt

424. The income requirement is that people aged 65 or older, and people with disabilities who have an income of less than $10,000 per year, exclusive of benefits from Social Security and pension, disability or retirement programs would qualify.

425. Per communication with Andy Kricun, the City of Camden originally owned the wastewater plant. CCMUA purchased it from the City in 1978 and then expanded and upgraded it to accommodate the other 36 towns. The host community benefit was provided from the early 1990s.

426. Pers. comm. via email, Andy Kricun, Executive Director/Chief Engineer, Camden County Municipal Utilities Authority (December 3, 2016).

service costs associated with the treatment plant versus to the entire utility (including the distribution system which does not benefit the city), is roughly proportional to the ratio of the $220 bill charged to Camden customers versus the $352 bill charged to the 36 suburban municipalities, as discussed previously
- The payment is received in lieu of taxes. The plant's property could be used by a private company that would pay taxes. Thus, the host community benefit is in lieu of the tax rates that the city is missing out on because CCMUA, as a governmental entity, does not pay taxes

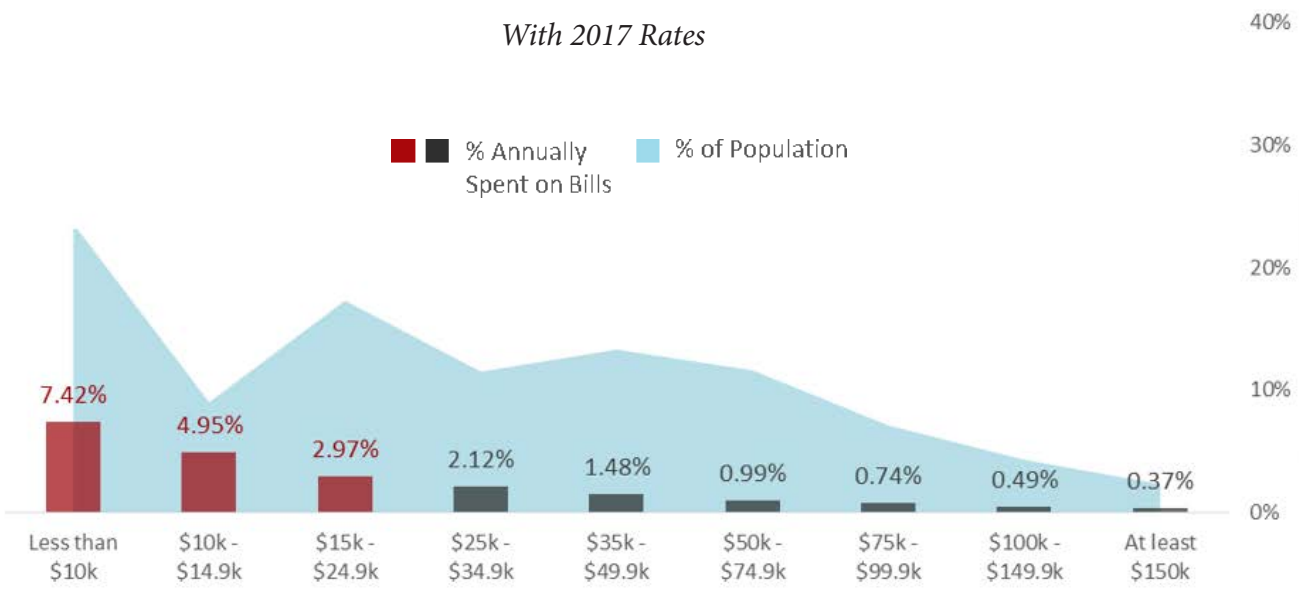
Legal Framework

N.J. Rev. Stat. § 40:14B-2 allows counties and municipalities to operate water and wastewater facilities and to charge for the services they provide through the establishment of a municipal authority. Under N.J. Rev. Stat. § 40:14B-21, municipal authorities are authorized to charge and collect rents, rates, fees, or other charges for the use, products, or services of water or wastewater utilities. State statutes require that these rates be uniform for the same type, class, and amount of use, as well as for similar products and services, with one exception. Specifically, Section 1 of P.L. 1992 c. 215, which is codified in N.J. Rev. Stat. § 40:14A-8.2, allows municipal and county authorities to establish reduced rates or total abatements for citizens who are senior, disabled, or both, and who meet certain income requirements. Although not specifically tied to income, N.J. Rev. Stat. § 40:14A-8.1 expressly authorizes county or municipal wastewater authorities whose operations plants are located within a city's boundaries to negotiate a host community benefit for qualified residents and qualified entities within the city. The law limits the host benefit to wastewater authorities.

Affordability Assessment for Camden

Figure 8 shows the household income distribution of Camden City in blue, with the percentage of income residential customers with different incomes would spend on water if they used 5,000 gallons/6.7 ccf. For example, a customer in the $10,000–$14,999 bracket will spend at least 4.95 percent of their income on water and wastewater services. It should be noted that Camden receives water and wastewater services from two different entities. CCMUA provides wastewater services, and American Water provides water ser-

Figure 8. Affordability of Water & Wastewater Rates in Camden City Assessed at 5,000 Gallons/ Month and 2015 Income Levels*



Note: This chart was updated on September 27, 2017, from a previous version that included statistics from all of Camden County, New Jersey.

* These charts were generated from the "Water and Wastewater Residential Rates Affordability Assessment Tool" created by the Environmental Finance Center at UNC Chapel Hill. This free tool can be accessed at http://www.efc.sog.unc.edu/reslib/item/water-wastewater-residential-rates-affordability-assessment-tool

vices as a contractor to the city.[427]

The following table shows key socioeconomic indicators for Camden County, 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 averages. As shown, Camden City has a much lower median household income (MHI) compared to the state of New Jersey or the United States as a whole. A much higher percentage of its residents are living in poverty and receiving public assistance.

Figure. 9 Affordability for Low-Income Customers in Camden City

	Camden City, New Jersey in 2015	New Jersey in 2015	United States in 2015
Median Household Income	**$25,042**	$72,062	$53, 482
% Unemployment	**11.1%**	6.4%	5.8%
% Not in labor force	**43.2%**	33.7%	36.1%
% of all people with income below poverty	**39.9%**	10.7%	15.6%
% with Social Security income	**25.5%**	29.2%	29.3%
% with Supplemental Security income	**16.4%**	4.3%	5.3%
% with cash public assistance income	**12.0%**	2.8%	2.8%
% with Food Stamps/SNAP benefits	**43.2%**	8.5%	13.0%

Note: This chart was updated on September 27, 2017, from a previous version that included statistics from all of Camden County, New Jersey.

Sources:

- U.S. Census Bureau's American Community Survey, obtained from American FactFinder, Income tab, Selected Economic Characteristics table from American Community Survey.
- U.S. Census Bureau's American Community Survey, obtained from American FactFinder, B25118: Tenure By Household Income In The Past 12 Months.
- Pers. comm. via email, Andy Kricun, Executive Director/Chief Engineer, Camden County Municipal Utilities Authority (December 3, 2016).

427. American Water does not offer a similar discount for drinking water service.

Case Study #4: Great Lakes Water Authority and the City of Detroit Water and Sewerage Department, Michigan

Water Residential Assistance Program: The Birth of One of the Nation's Largest and Most Comprehensive Utility-Managed Customer Assistance Programs.

Background

The affordability challenges facing low-income households in Detroit, Michigan, have received international attention, partially attributable to a highly publicized visit by UN officials who classified the affordability issues and the resulting service shutoffs due to late payments as human rights issues on par with other international human rights efforts.[428] The water affordability story in Detroit is intertwined with the long-term financial challenges experienced by its government, which culminated in the city declaring bankruptcy in July 2013. Thus, city, regional, and state leaders have had the opportunity to reevaluate the governance and finance structure of how regional water and wastewater services are provided in order to develop a thoughtful model that will address underlying government level financial needs, but also provide a robust well-funded customer assistance program (CAP). All of this was done within a fairly restrictive statewide rate setting legal framework that, similar to the framework of many states, was not crafted with modern affordability concerns in mind.

About Great Lakes Water Authority and Detroit Water and Sewerage Department

Historically, water and wastewater services in Detroit, and in large areas of surrounding Michigan, were provided by the Detroit Water and Sewerage Department (DWSD). In 2016, the governing structure changed such that DWSD remained as the retail operation responsible for water services and billing in Detroit, but the Great Lakes Water Authority (GLWA) now served as the wholesaler responsible for the management of water and wastewater production in several communities in southeastern Michigan, including Detroit. GLWA is comprised of the City of Detroit; the counties of Macomb, Oakland, and Wayne; and the State of Michigan.[429] GLWA does not own the facilities that it operates. Rather, there is a 40-year lease for which DWSD receives $50 million a year for infrastructure repairs and replacement. DWSD retains control over infrastructure and retail services to customers within the Detroit city limits. DWSD is an urban public utility, which provides water and wastewater services to approximately 680,000 people.[430] DWSD's service area covers approximately 139 square miles and more than 100 neighborhoods in Detroit.[431] DWSD uses monthly billing, and water, wastewater, and stormwater ("drainage charge") are combined on the same bill. One of the outcomes of the new organizational structure was a comprehensive CAP called the Water Residential Assistance Program (WRAP), which provides a variety of integrated financial assistance support to retail customers served by DWSD, as well as to communities throughout the GLWA service area.[432] It is estimated that 40 percent of the population of Detroit lives below the federal poverty line.

About WRAP[433]

In Detroit, WRAP serves approximately 5,500 low-income customers. A half percent of all GLWA revenue is dedicated to WRAP. The program was envisioned to generate approximately $4.5 million during its initial operation. At the outset, DWSD anticipated having $1.5 million to devote to the program. The program is designed to provide eligible low-income customers with bill discounts and conservation assistance. Specifically, WRAP freezes arrearages for a year; provides a $25 per month discount for one year, offers up to $700 toward past due balances, and conducts water conservation audits with up to $1,000 in minor home plumbing repairs. Additionally, DWSD is utilizing a new approach to help in reducing customer shutoffs. Customers who are currently enrolled in WRAP, or enrolled in a payment plan and who are in compliance with the plan, will not be disconnected.

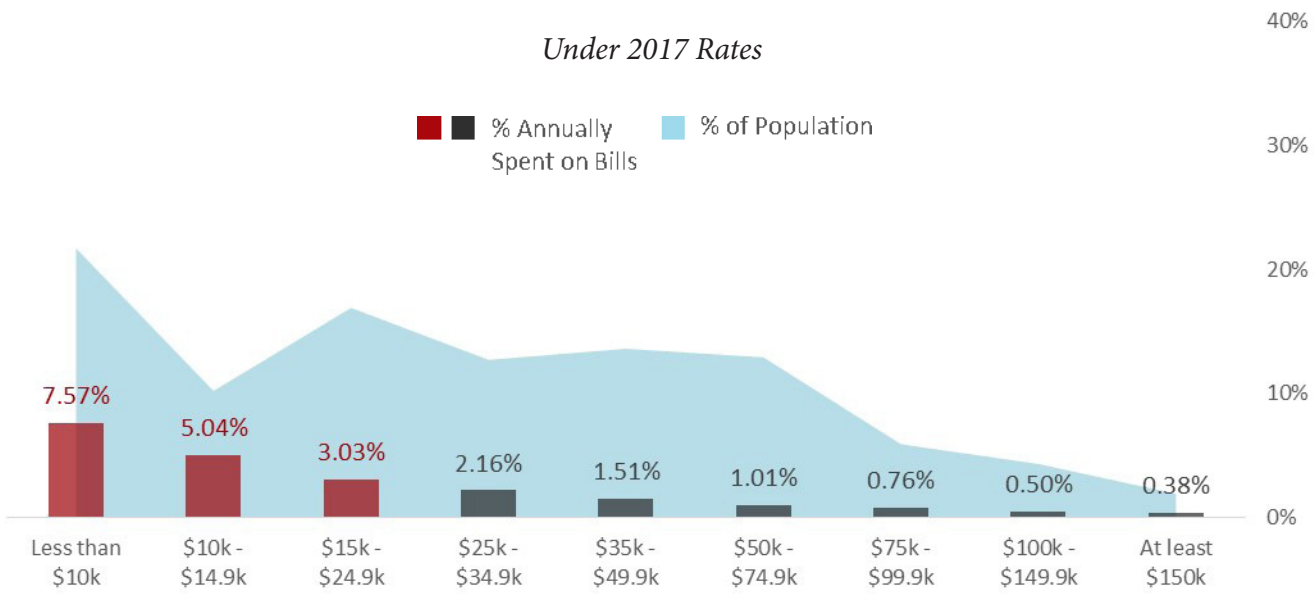
428. http://www.un.org/apps/news/story.asp?NewsID=49127#.WKQ14G8rKCg
429. http://www.glwater.org/
430. http://www.detroitmi.gov/Government/Departments-and-Agencies/Water-and-Sewerage-Department/About-DWSD
431. Personal Communication, Linda A. Clark, Public Affairs Officer, Detroit Water and Sewerage Department, on 03/08/17
432. Not all communities in the GLWA service area have elected to avail themselves of WRAP.
433. http://www.glwater.org/wp-content/uploads/2015/08/WRAP-FAQ-Residents-081415.pdf

Legal Framework

Michigan has a constitutional provision, the Headlee Amendment, and a state Supreme Court case which, combined, have created a restrictive legal framework for governmental entities, such as public utilities, to have to navigate when attempting to fund social programs. Specifically, the Headlee Amendment prohibits local governments from increasing taxes without voter approval. Further, the Michigan Supreme Court, in *Bolt v. City of Lansing*, articulated a three-prong test for differentiating between a tax and a fee. First, the court held that a user fee is meant for regulation, whereas a tax is meant to generate revenues.[434] Second, a user fee must be proportionate to the necessary cost of service.[435] Finally, the court held that unlike taxes, fees should be voluntary, meaning that people have the right to refuse use of the commodity.[436]

Past affordability programs considered by DWSD have been held up out of concern that such programs would be challenged under the Headlee Amendment. However, because affordability is such a huge concern in Michigan, and especially in Detroit, DWSD has continued to work on ways to fund CAPs that fit within this legal framework. Specifically, in 2015, a Blue Ribbon Panel on Affordability was convened by DWSD and supported by the Detroit City Council. The panel was tasked with coming up with solutions to address affordability concerns within this challenging legal environment. The Blue Ribbon Panel on Affordability report was published in February 2016. The report evaluated a number of options, including the establishment of a long-term recurring income-indexed rate structure; however, concerns about whether that type of program would be open to challenges helped lead to the final design of the program, which is based more on customer assistance than on differentiated rates. This income-indexed structure is under development and may go into effect near the end of 2018.

Figure 10. Affordability of Water & Wastewater Rates in Detroit Assessed at 5,000 Gallons/ Month and 2015 Income Levels*



* These charts were generated from the "Water and Wastewater Residential Rates Affordability Assessment Tool" created by the Environmental Finance Center at UNC Chapel Hill. This free tool can be accessed at http://www.efc.sog.unc.edu/reslib/item/water-wastewater-residential-rates-affordability-assessment-tool

434. Bolt v. City of Lansing, 459 Mich. 152, 160-62 (Mich. Sup. Ct. 1998) (citing Merrelli v St Clair Shores, 355 Mich. 575, 583-584 (1959)).
435. Bolt v. City of Lansing, 459 Mich. 152, 160-62 (Mich. Sup. Ct. 1998) (citing Bray v Dep't of State, 418 Mich. 149, 160 (1983)).
436. Bolt v. City of Lansing, 459 Mich. 152, 160-62 (Mich. Sup. Ct. 1998) (citing Jones v Detroit Water Comm'rs, 34 Mich. 273, 275 (1876)).

Affordability Assessment for Detroit

Figure 10 shows the income distribution of Detroit's customers in blue, with the percentage of income an average user (5,000 gallons/6.7 ccf) will spend on water and wastewater services. For example, an average user in the $10,000–$14,999 bracket will spend 6.07 percent of their income on water and wastewater services.

The following table shows key socioeconomic indicators for Detroit, with the state and national averages available for comparison. Values in red reflect that the indicator is "most stressed," as compared to both the state and national averages.

Figure 11. Affordability for Low-Income Customers in Detroit

	Detroit, Michigan in 2015	Michigan in 2014	United States in 2014
Median Household Income	**$25,764**	$49,087	$53, 482
% Unemployment	**13.2%**	7.0%	5.8%
% Not in labor force	**47.0%**	38.5%	36.1%
% of all people with income below poverty	**40.3%**	16.9%	15.6%
% with Social Security income	**33.6%**	33.0%	29.3%
% with Supplemental Security income	**15.0%**	6.1%	5.3%
% with cash public assistance income	**7.0%**	3.7%	2.8%
% with Food Stamps/SNAP benefits	**42.6%**	17.1%	13.0%

Sources:

- U.S. Census Bureau's American Community Survey, obtained from American FactFinder, Income tab, Selected Economic Characteristics table from American Community Survey.
- U.S. Census Bureau's American Community Survey, obtained from American FactFinder, B25118: Tenure By Household Income In The Past 12 Months.
- Detroit Water and Sewerage Department, Water and Sewer Drainage Rates 101.

Case Study #5: SUEZ Water and New York American Water, New York

Two Private Water Companies Include Affordability Programs within Their Current Rate Cases

Background

As is discussed in the New York summary, some New York municipalities and government-owned water and wastewater utilities have created low-income customer assistance programs (CAPs) funded by rate revenues. However, no private utilities in New York have implemented similar programs. That being said, two private water companies are in the process of creating and obtaining approval for low-income CAPs. Specifically, both SUEZ Water and New York American Water recently included low-income CAPs in their rate cases for 2017.

About SUEZ Water and New York American Water

SUEZ Water is a private water company, previously known as United Water, which provides water services to approximately 500,000 people in New York. SUEZ's service area encompasses four counties (Rockland, Orange, Westchester, and Tioga). New York American Water is also a private water company, providing water services to approximately 370,000 people in New York. New York American Water's service area encompasses seven counties (Nassau, Ulster, Putnam, Sullivan, Washington, Orange, and Westchester).

About the Proposed Low-Income CAPs

Both SUEZ and New York American Water have included proposals for low-income CAPs in present rate cases. However, the proposals for each program are very different.

In its rate case to the New York Public Service Commission (PSC), SUEZ Water included a proposal for a "Low Income Rebate Program." The proposal stated that within six months of the order adopting the rate proposal, SUEZ would create a more formal proposal, based on stakeholder input and comments, which would aim to address all of the following:

- A method to identify low income customers
- The proposed number of rebates and dollar amount per rebate, demonstrating that the dollar value of the rebate and associated water savings is cost-effective on a dollar per MGD saved basis
- A timeline for the roll-out of the program
- The proposed total budget of the program[437]

Additionally, SUEZ provided that the budget for the program would be funded either through the System Improvement Charge or, at the company's discretion, deferred to the next rate case. In January, 2017, New York PSC entered an order approving the three-year rate plan laid out in the SUEZ rate case.

In addition to the rebate program, the New York Public Service Commission directed SUEZ in its Order approving the rate case, to work with Staff and interested stakeholders to design a program to deliver low-income discounts to income eligible customers. The Commission specifically directed SUEZ to work with local community based organizations, social service agencies and the local electric and gas utility to minimize the costs of administering the program. SUEZ was given nine-months from the January, 2017 order to submit a proposal for the low-income discount program.

As of May, 2017, SUEZ had not yet submitted a follow-up proposal with the specifics for the low-income rebate program or the low-income discount program.

Unlike SUEZ Water, New York American Water included the specifics for its proposed low-income CAP in the body of its rate case. Specifically, the company provided that the low-income program will go into effect within 60 days of the commission's order approving its rates. Customers are deemed eligible based on

437. See Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of SUEZ Water New York Inc. for Water Service, Case No. 16-W-0130 (N.Y. Pub. Serv. Comm'n 2017).

previous approval for Medicaid or the Low-Income Home Energy Assistance Program benefits. A third-party will be used to verify eligibility. Approved customers will receive a monthly bill discount for a year, in the amount of a credit equal to their meter charge (up to the 1" price). New York American Water further provides that the budget for the program will be capped at $80,000 per rate year, "and will be recovered through the revenue requirement."

If approved, it will be the first of its kind in NY for a regulated water utility. Qualifying customers will receive a discount on their water bill equal to their monthly fixed service charge (up to $17.74 per month).

The company will be utilizing a third-party administrator from NY that has experience operating such programs for gas and electric utilities.

New York American Water's rate case is still pending, and the public comment period concluded April 7th.

Legal Framework

Like many states, New York has a seemingly restrictive statutory framework for private water companies regulated by New York PSC. Specifically, state law provides that no commission-regulated utility shall charge or receive[438] a greater or less compensation for water than it receives "from any other person or corporation for doing a like and contemporaneous service with respect thereto under the same or substantially similar circumstances or conditions." Additionally, private water companies are prohibited from making or granting "any undue or unreasonable preference or advantage to any person, corporation or locality, or to any particular description of service in any respect whatsoever."

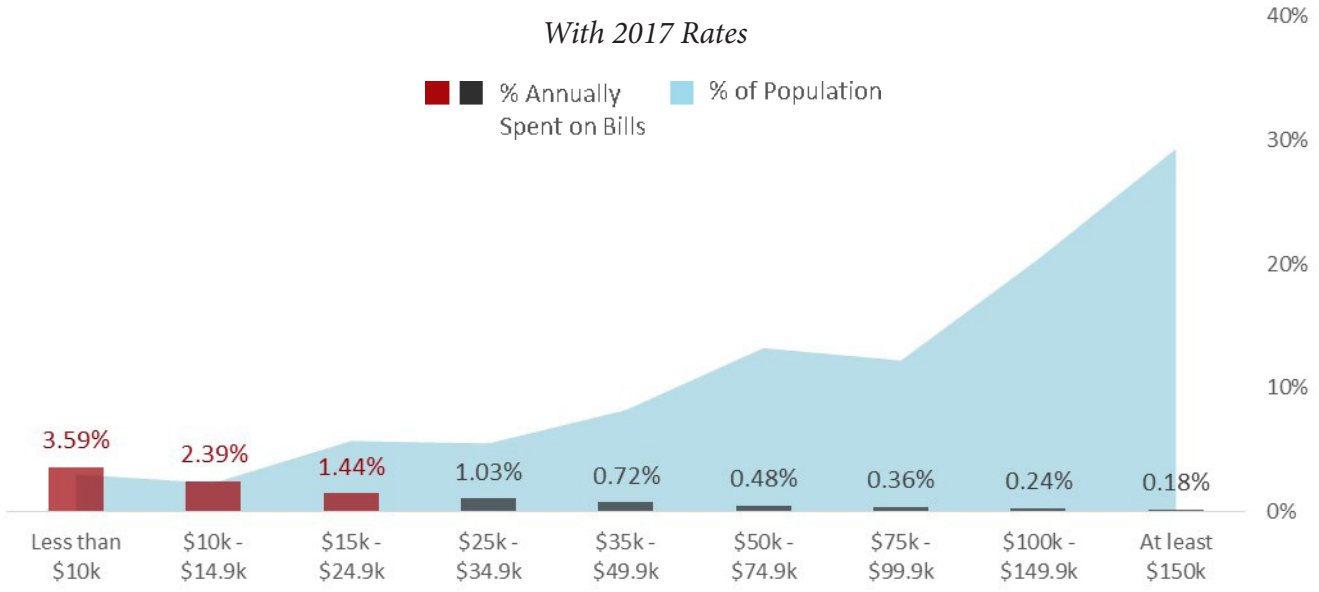
Language almost identical in nature has been interpreted by public service commissions in other states to serve as a prohibition on the use of rates for low-income CAPs funded by rate revenues. Thus, the success of these two private utility low-income CAPs will very likely set a precedent for how other commission-regulated water companies can go about creating similar programs in the future.

Affordability Assessment for NYAW (Nassau County)

Affordability Assessment for Nassau County Without the Cap

Wastewater was not included in this analysis. Custom-

Figure 12. Affordability of Water & Wastewater Rates in Nassau County Assessed at 5,000 Gallons/Month and 2015 Income Levels*



* These charts were generated from the "Water and Wastewater Residential Rates Affordability Assessment Tool" created by the Environmental Finance Center at UNC Chapel Hill. This free tool can be accessed at http://www.efc.sog.unc.edu/reslib/item/water-wastewater-residential-rates-affordability-assessment-tool

438. By any special rate, rebate, drawback or other device.

ers who are not on a septic system pay for wastewater services through an assessment linked to their property.[439] New York American Water also has multiple rate structures in Nassau County. The analysis used the rates that apply to the "Former Lynbrook District/Long Island American Water, Mill Neck."[440] Figure 12 shows the income distribution of Nassau County in blue, with the percentage of income an average user (5,000 gallons/670 ccf of water and wastewater) will spend on water services. For example, a user at 5,000 gallons in the $10,000–$14,999 will spend at least 2.39 percent of their income on water services. Note: This chart uses county wide census data; that is, it assumes that the income distribution of the company's Nassau County customers is similar to the countywide distribution.[441]

The following table shows key socioeconomic indicators for Nassau County, 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 averages.

Figure 13. Affordability for Low-Income Customers in Nassau County

	Nassau County, New York in 2015	New York in 2014	United States in 2014
Median Household Income	**$99,465**	$59,269	$53, 482
% Unemployment	**4.2%**	5.2%	5.8%
% Not in labor force	**34.7%**	36.5%	36.1%
% of all people with income below poverty	**6.2%**	16.7%	15.6%
% with Social Security income	**34.3%**	29.5%	29.3%
% with Supplemental Security income	**3.5%**	6.3%	5.3%
% with cash public assistance income	**1.69%**	3.4%	2.8%
% with Food Stamps/SNAP benefits	**5.1%**	15.4%	13.0%

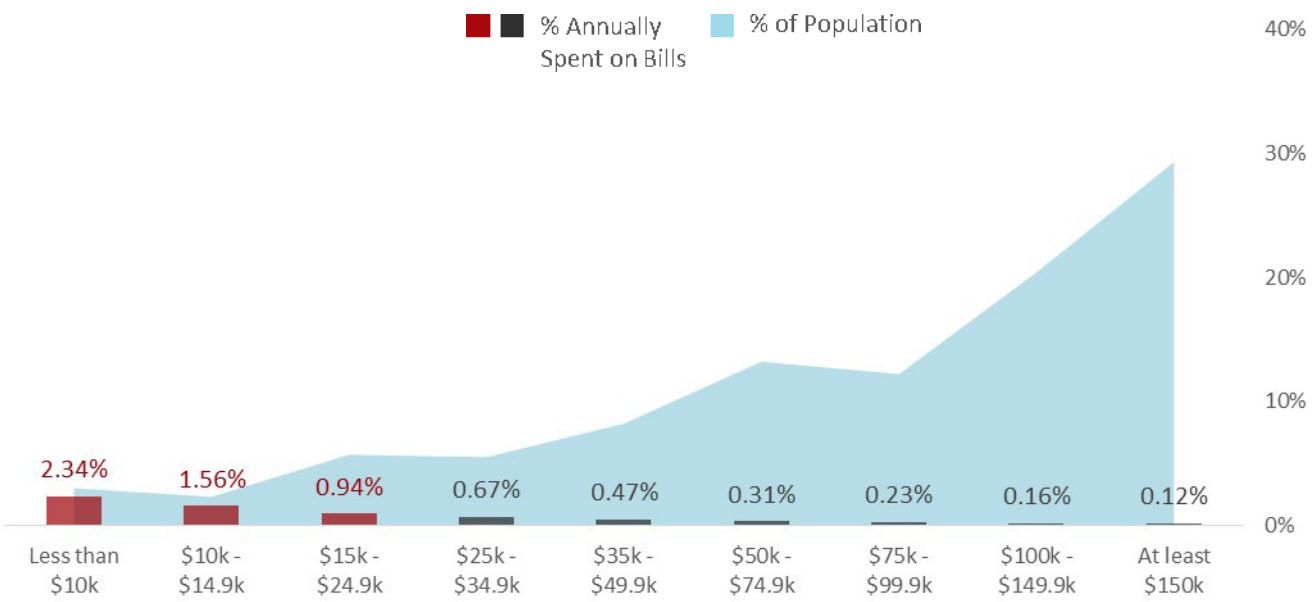
439. Retrieved from Nassau County Sewer and Stormwater Finance Authority and Long Island News
440. Retrieved from New York American website: Your Water Rates.
441. Retrieved from American Fact Finder website, American Community Survey 2015: Nassau county, New York and New York American website: Rate case for assorted communities in Nassau County.

Affordability Assessment for Nassau County with the Proposed CAP

New York American Water has proposed an affordability program where qualifying customers can receive a bill discount on water services to 100 percent of the service charge for a 5/8" x 3/4" meter. With the program, a customer with a 5/8" meter who is eligible for the program will save $12.50 a month, $150 over a full year. Without the program, around 8.3 percent of the population would spend at least 2 percent of their income on water service (assuming usage at 5,000 gallons), but with the program only 3.0 percent of the population will.

Figure 14. Affordability of Water & Wastewater Rates in Nassau County Assessed at 5,000 Gallons/ Month and 2015 Income Levels*

Under Affordability Progtram



* These charts were generated from the "Water and Wastewater Residential Rates Affordability Assessment Tool" created by the Environmental Finance Center at UNC Chapel Hill. This free tool can be accessed at http://www.efc.sog.unc.edu/reslib/item/water-wastewater-residential-rates-affordability-assessment-tool

Percent of household income spent on bills	Minimum percent of households paying that amount, assuming residential customer income distribution mirrored that of ALL HOUSEHOLDS	
	Current rates	Alternative rates
2%	5.3%	3.0%
3%	3.0%	0.0%
4%	0.0%	0.0%
5%	0.0%	0.0%
10%	0.0%	0.0%

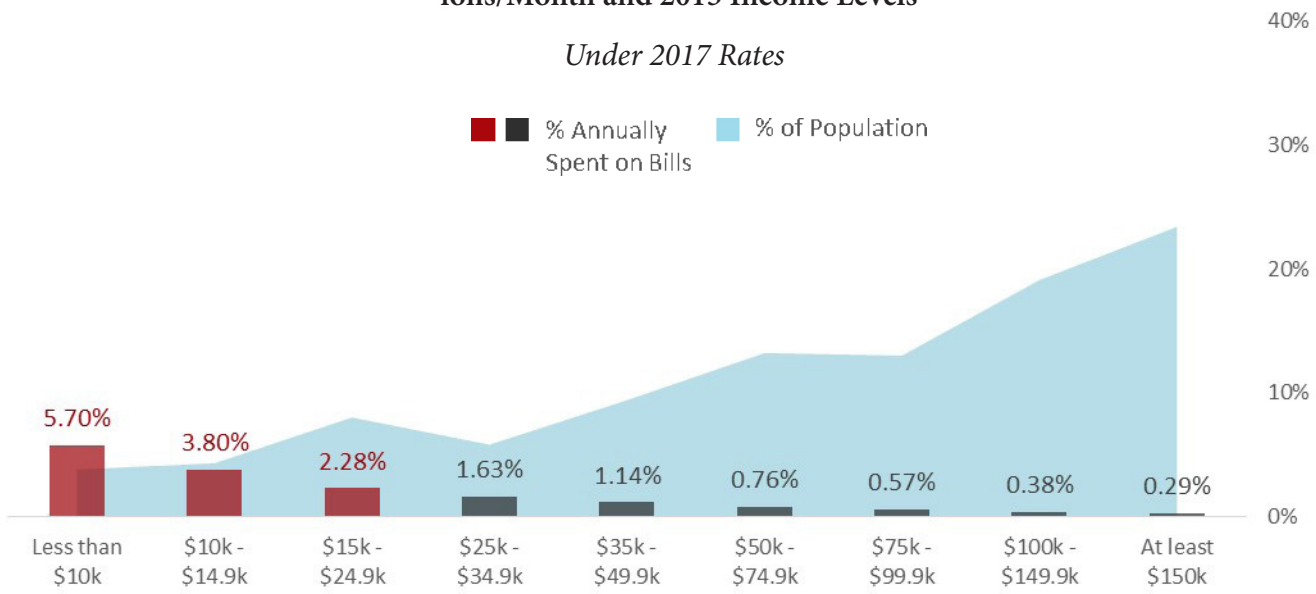
Affordability Assessment for SUEZ Water (Rockland County)

Affordability Assessment for Rockland County, without a CAP

To maintain consistency with the NYAW assessment, wastewater was also not included in this analysis. As of February 1, 2017, all single family residential customers in New York pay the same rates.[442] The figure that follows shows the income distribution of Rockland County in blue, with the percentage of income an average user (5,000 gallons/670 ccf of water and wastewater) will spend on water services. For example, a user at 5,000 gallons in the $10,000–$14,999 will spend at least 3.80 percent of their income on water services.[443]

Note: As in the NYWA assessment, this analysis assumes that the income distribution of SUEZ's Rockland County customers is comparable to the income distribution of the county as a whole. However, because SUEZ serves the vast majority of Rockland County residents,[444] this is a safe assumption.

Figure 15. Affordability of Water & Wastewater Rates in Rockland County Assessed at 5,000 Gallons/Month and 2015 Income Levels*



* These charts were generated from the "Water and Wastewater Residential Rates Affordability Assessment Tool" created by the Environmental Finance Center at UNC Chapel Hill. This free tool can be accessed at http://www.efc.sog.unc.edu/reslib/item/water-wastewater-residential-rates-affordability-assessment-tool

442. Retrieved from SUEZ NY website: Rates and Regulations

443. Retrieved from American Fact Finder website, American Community Survey 2015: Rockland county, New York and SUEZ Website: Single Family Residential Rates

444. Retrieved from The Journal News website: "Rockland water rate hike cut by state regulators"

The table that follows shows key socioeconomic indicators for Rockland County, 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 averages.

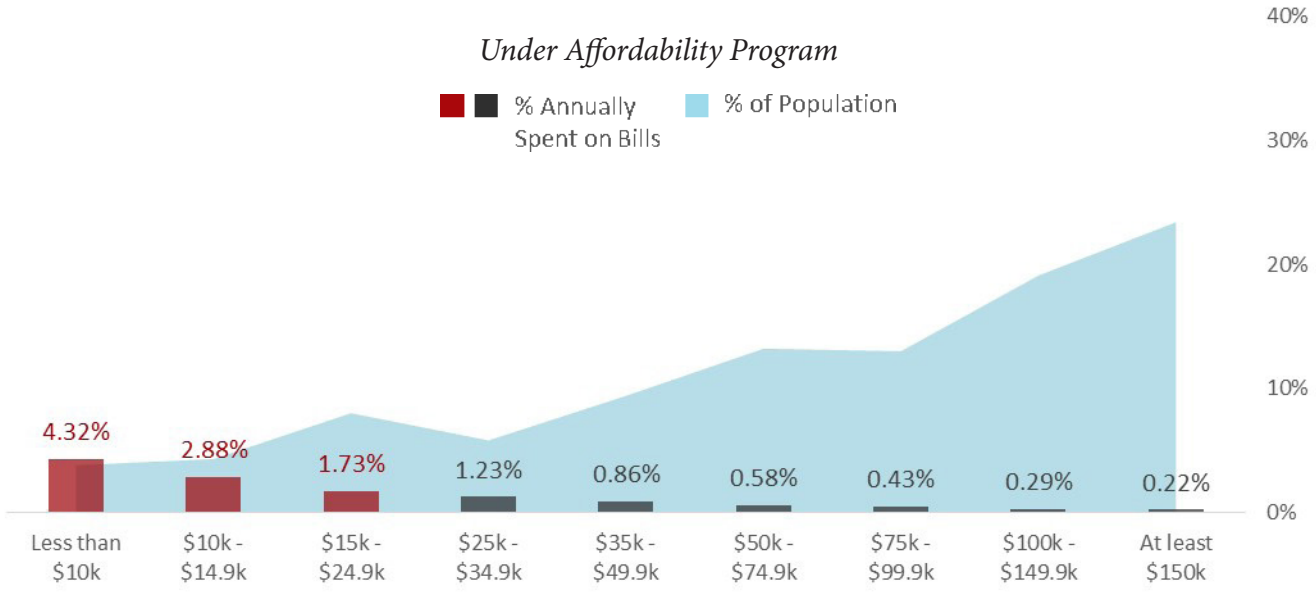
Figure 16. Affordability for Low-Income Customers in Rockland County

	Rockland County, New York in 2015	New York in 2014	United States in 2014
Median Household Income	**$84,855**	$59,269	$53, 482
% Unemployment	**5.2%**	5.2%	5.8%
% Not in labor force	**34.4%**	36.5%	36.1%
% of all people with income below poverty	**14.6%**	16.7%	15.6%
% with Social Security income	**31.6%**	29.5%	29.3%
% with Supplemental Security income	**4.0%**	6.3%	5.3%
% with cash public assistance income	**1.9%**	3.4%	2.8%
% with Food Stamps/SNAP benefits	**11.06%**	15.4%	13.0%

Affordability Assessment for Rockland County with a Possible CAP

Because SUEZ has not yet set out the specifics of its proposed CAP, the analysis that follows examines the impact if it employs a CAP identical to New York American Water. With the CAP, a customer with a 5/8" meter who is eligible for the program will save $138.84 a year.[445] Without the program, around 3.8 percent of the population (at average use) would spend at least 5 percent of their income on water, while with the CAP, 0 percent of the population would. Additionally, about 31 percent of the population would spend at least 2 percent of their income on water without the CAP, while 15.7 percent would spend at least 2 percent of their income on water with the CAP.

Figure 16. Affordability of Water & Wastewater Rates in Rockdale County Assessed at 5,000 Gallons/Month and 2015 Income Levels*



* These charts were generated from the "Water and Wastewater Residential Rates Affordability Assessment Tool" created by the Environmental Finance Center at UNC Chapel Hill. This free tool can be accessed at http://www.efc.sog.unc.edu/reslib/item/water-wastewater-residential-rates-affordability-assessment-tool

Percent of household income spent on bills	Minimum percent of households paying that amount, assuming residential customer income distribution mirrored that of ALL HOUSEHOLDS	
	Current rates	Alternative rates
2%	16.1%	8.1%
3%	8.1%	3.8%
4%	3.8%	3.8%
5%	3.8%	0.0%
10%	0.0%	0.0%

445. See Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of SUEZ Water New York Inc. for Water Service, Case No. 16-W-0130 (N.Y. Pub. Serv. Comm'n 2017); Retrieved from SUEZ NY website: Single Family Residential Rates

Sources:

- U.S. Census Bureau's American Community Survey, obtained from American FactFinder, Income tab, Selected Economic Characteristics table from American Community Survey.
- U.S. Census Bureau's American Community Survey, obtained from American FactFinder, B25118: Tenure By Household Income In The Past 12 Months.
- Document laying out NYAW's proposed affordability program.
- Nassau County Sewer and Stormwater Finance Authority 2017 Budget
- New York American Water website, Your Water Rates
- New York American Water website: Rate case for assorted communities in Nassau County.
- SUEZ NY, How Rates are Determined
- Journal News website: "Rockland water rate hike cut by state regulators".

Case Study #6: City of Portland Water Bureau, Oregon

Financial Assistance—A Longstanding, Multi-Pronged Approach to Addressing Affordability

Background

Since 2012, the typical collective water, wastewater, and stormwater bill in Portland has risen by 20 percent.[446] The steady rate increases have been due in part to the city's investment in major infrastructure projects, including a $1.4 billion Big Pipe project, which launched in 1991 and was intended to prevent stormwater discharge into waterways.[447] Such consistent rate increases have created an environment where affordability of water and wastewater services is of particular concern.

About the Portland Water Bureau

The Portland Water Bureau (PWB) is an urban public utility that provides retail water services to roughly 597,000 customers in 164,500 residential households. PWB's retail service area currently encompasses 143.3 square miles. PWB uses quarterly billing for water and wastewater services. It is estimated that the PWB system provides services to 7,000 low-income customers.[448]

About the Financial Assistance Programs

PWB offers numerous financial assistance programs for its low-income customers. Most notably, PWB offers a bill discount program, which was established in 1995. It is administered by PWB in conjunction with the Bureau of Environmental Services. PWB's bill discount program provides eligible single-family residential accounts with a credit of $50.70 on the water portion of the bill and $91.34 on the wastewater or stormwater management charges portion of the bill. This discount results in a savings of $142.04 on a 90-day bill. Customers with only a wastewater account receive a discount of $79.99 on a 60-day bill. The discount amounts are established each fiscal year by the Portland City Council.

To qualify for the bill discount, a PWB customer's household income must be at or below 60 percent of the state median income. Customers who meet the income criteria can contact a local Community Service Center to get help in applying or can apply directly to PWB.

In addition to the bill discount, PWB offers other affordability services, including arrearage/debt forgiveness programs, crisis assistance, and financial assistance for fixture repair and replacement, as well as a utility safety net program that offers emergency financial assistance for customers experiencing employment, medical, or other personal emergencies.

Legal Framework

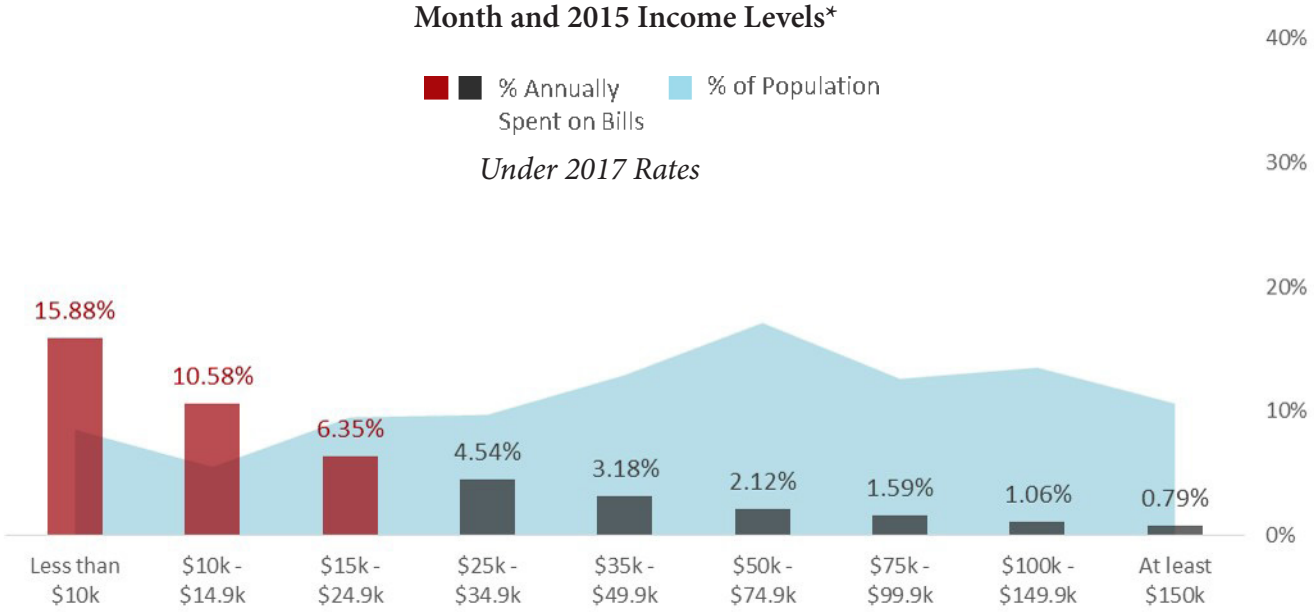
Under Oregon state law, there is very little restriction on the establishment of rates by utilities not regulated by the Oregon Public Utility Commission. Additionally, Oregon has a strong home rule environment, and Portland has its own home rule charter. Given that there is no preemptive or otherwise restrictive language laid out in the general state law, Portland has been relatively free to establish its own rate making policies for its city water and wastewater utilities. The City of Portland operates the Portland Utility Board (PUB), a nine-member citizen oversight body, which is in part responsible for overseeing PWB's rate setting for water services. The PUB advises the Portland City Council, and then, as previously mentioned, the city council establishes the discounted amounts for the bill discount financial assistance program each fiscal year. In fact, the rate setting process is laid out by ordinance and includes specific provisions that require the discounts above to be included. The bill discount program, thus, is funded through general rate revenues.

446. "A $100 Monthly Utility Bill in Portland? Yes."
447. Id.
448. Personal Communication with Brad Blake, Program Coordinator, Portland Water Bureau on 02/24/17

Affordability Assessment for Portland

The following chart shows the household income distribution of Portland in blue, with the percentage of income residential customers with different incomes would spend on water and wastewater services if they used 5,000 gallons/6.7 ccf. For example, a customer in the $10,000–$14,999 bracket will spend at least 10.58 percent of their income on water and wastewater services.

Figure 17. Affordability of Water & Wastewater Rates in Portland Assessed at 5,000 Gallons/ Month and 2015 Income Levels*



* These charts were generated from the "Water and Wastewater Residential Rates Affordability Assessment Tool" created by the Environmental Finance Center at UNC Chapel Hill. This free tool can be accessed at http://www.efc.sog.unc.edu/reslib/item/water-wastewater-residential-rates-affordability-assessment-tool

Figure 18 shows key socioeconomic indicators for Portland, 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 averages.

Figure 18. Affordability for Low-Income Customers in Portland

	Portland, Oregon in 2015	Oregon in 2014	United States in 2014
Median Household Income	**$55,003**	$50,521	$53, 482
% Unemployment	**5.9%**	6.6%	5.8%
% Not in labor force	**30.5%**	37.5%	36.1%
% of all people with income below poverty	**18.0%**	16.7%	15.6%
% with Social Security income	**23.3%**	31.6%	29.3%
% with Supplemental Security income	**4.8**	4.5%	5.3%
% with cash public assistance income	**4.2%**	3.9%	2.8%
% with Food Stamps/SNAP benefits	**19.6%**	19.1%	13.0%

Sources:

- U.S. Census Bureau's American Community Survey, obtained from American FactFinder, Income tab, Selected Economic Characteristics table from American Community Survey
- U.S. Census Bureau's American Community Survey, obtained from American FactFinder, B25118: Tenure By Household Income In The Past 12 Months.
- Portland Water Bureau, Rates and Charges.
- Portland Environmental Services, Fiscal Year 2016-2017 Sewer Rates.

Case Study #7: City of Raleigh Public Utilities Department, North Carolina

Utility Customer Assistance Program: A Local Government Partnership Overcomes Legal Limitations

Background

Government-owned utilities in North Carolina do not have express authority for establishing low-income customer assistance programs (CAPs) funded by rate revenues. At the same time, "cost of service" rate setting statutory provisions have been interpreted by some legal experts as limiting direct cross subsidization between rate classes. For this reason, North Carolina water and wastewater utilities have been reluctant to implement income-indexed rates, bill discounts, or income eligibility driven temporary assistance funds. Several utilities have created modest CAPs that are funded primarily from nonutility or nongovernmental revenue, such as Orange Water and Sewer Authority's "Care to Share" program. These programs tend to be small in size and have capacity to assist only a limited number of customers each year. In 2016, the City of Raleigh partnered with several other local governments to design a customer assistance program that would comply with what it interpreted as being permissible, but which would still be able to provide significant assistance.

In March 2016, the Raleigh City Council authorized staff to develop a CAP.[449] Raleigh recognized that the financial challenges facing some of its utility customers were significant, were not being addressed by existing social programs, and likely could not be adequately addressed by a purely voluntary program. Raleigh also recognized that providing assistance to utility customers would provide cost benefits to the entire community by reducing staff costs and lost revenues associated with disconnections. In December 2016, the city council formally approved a new Utility Customer Assistance Program (UCAP) that would be funded through approximately $215,000 in general local government revenues from the City of Raleigh and the City of Garner, a neighboring community that has residents who receive services from Raleigh's utility.

About CORPUD

Raleigh is the county seat of Wake County and the capital of North Carolina. The City of Raleigh Public Utilities Department (CORPUD) is a regional water and wastewater service provider that is owned and governed by Raleigh. The utility provides service to approximately 550,000 people who reside within Raleigh's city limits and in a number of surrounding Wake County municipalities.[450] Raleigh and Garner have appropriated funds that have the capacity to serve 895 customer accounts. Six months after launching the program, approximately 400 low-income customers have enrolled and are receiving assistance.[451] The CORPUD service area covers approximately 194 square miles. CORPUD bills on a monthly basis for water and wastewater services. Some CORPUD customer bills also include charges for other services such as solid waste and stormwater. Raleigh maintains interlocal agreements with the governments of the other municipalities that it serves. These agreements govern different aspects of rate setting, utility expansion, and expenditures.

About UCAP

UCAP provides up to $240 per year of one-time financial assistance to utility customers who meet established criteria. Each of the local governments that have residents served by CORPUD are given the opportunity to participate in the program by providing general fund revenue into a centrally managed program. During the first year of the program, only Raleigh and Garner chose to participate, providing $200,000 and $14,173 respectively. The program is implemented through a partnership with multiple governmental agencies. CORPUD advertises the program on its website, on utility bills, and through customer service staff. Wake County Human Services (WCHS) is responsible for processing applications and carrying out eligibility screening for the program at its offices. WCHS may also notify eligible customers seeking other social assistance of the UCAP's existence. The eligibility requirements are similar to those of the federal Low-

449. City of Raleigh, City Council Meeting Notes The City Council of the City of Raleigh met in a regular session at 1:00 p.m. on Tuesday, November 15, 2016

450. https://www.raleighnc.gov/home/content/Departments/Articles/PublicUtilities.html

451. City of Raleigh, Correspondence with Author April 4, 2017.

Income Heating and Energy Assistance Program, which is also locally implemented by WCHS. In order to be eligible, utility customers must have incomes less than 130 percent of the federal poverty level and be past due on their accounts or otherwise economically distressed. Once a customer's eligibility for UCAP has been determined, WCHS notifies CORPUD and $240 is credited to the customer's account.

Legal Framework

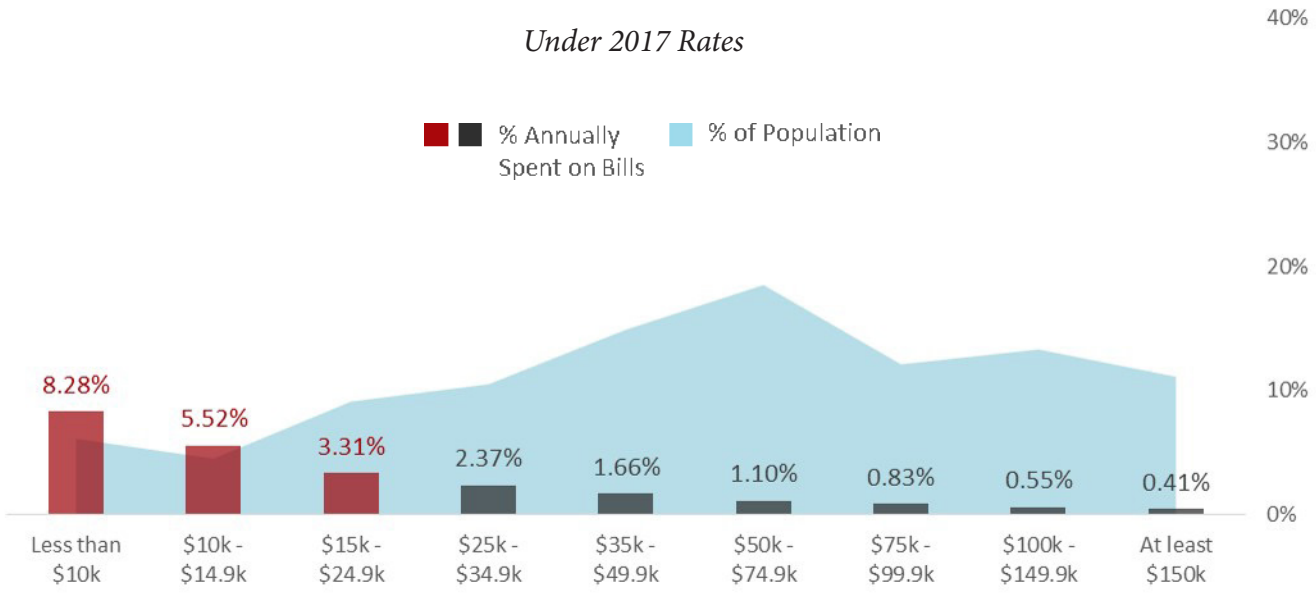
North Carolina statutes provide general guidance on how rates should be set and provide utilities with the authority to vary rates based on classes of service.

Under common law, classes of service and, therefore, the rates customers pay, are tied to factors that affect the cost of serving a customer rather than general attributes of the customer that do not affect cost (e.g., income, age, and so forth).[452] Legal specialists have strictly interpreted this cost of service requirement to limit indirect rate differentiation that would arise if revenue involuntarily collected from one customer was used to fund an emergency or temporary assistance payment program that was only eligible to customers who meet income eligibility criteria.[453] As a result of these limitations, utilities in North Carolina have avoided implementing any type of income indexed rates or temporary assistance programs funded with rate revenues.

Affordability Assessment for Raleigh

The annual bill for a customer who uses 5,000 gallons a month is $828. The annual bill increases to $1,249 for customers who use 8,000 gallons a month. The chart that follows shows the household income distribution of Raleigh in blue, with the percentage of income residential customers with different incomes would spend on water and wastewater services if they used 5,000 gallons/6.7 ccf. For example, a customer in the $10,000–$14,999 bracket will spend at least 5.52 percent of their income on water and wastewater services.

Figure 19. Affordability of Water & Wastewater Rates in Raleigh Assessed at 5,000 Gallons/ Month and 2015 Income Levels*



* These charts were generated from the "Water and Wastewater Residential Rates Affordability Assessment Tool" created by the Environmental Finance Center at UNC Chapel Hill. This free tool can be accessed at http://www.efc.sog.unc.edu/reslib/item/water-wastewater-residential-rates-affordability-assessment-tool

452. http://canons.sog.unc.edu/utility-rate-discounts-can-a-local-government-cut-its-utility-customers-a-break/
453. Id.

The following table shows key socioeconomic indicators for Raleigh, 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 averages. For Raleigh, no indicators are "most stressed."

Figure 20. Affordability for Low-Income Customers in Raleigh

	Raleigh, North Carolina in 2015	Raleigh in 2014	United States in 2014
Median Household Income	**$55,398**	$46,693	$53, 482
% Unemployment	**5.0%**	6.6%	5.8%
% Not in labor force	**29.2%**	36.8%	36.1%
% of all people with income below poverty	**16.0%**	17.6%	15.6%
% with Social Security income	**18.7%**	30.4%	29.3%
% with Supplemental Security income	**3.2%**	4.9%	5.3%
% with cash public assistance income	**1.3%**	2.0%	2.8%
% with Food Stamps/SNAP benefits	**9.8%**	14.4%	13.0%

Sources:

- U.S. Census Bureau's American Community Survey, obtained from American FactFinder, Income tab, Selected Economic Characteristics table from American Community Survey.
- U.S. Census Bureau's American Community Survey, obtained from American FactFinder, B25118: Tenure By Household Income In The Past 12 Months.
- Raleigh Public Utilities, "Utility Rates, Deposits & Other Charges."

Case Study #8: City of Seattle Public Utilities, Washington

Utility Discount Program and Emergency Assistance Program: Cross Subsidies Expressly Allowed by State Law

Background

Seattle is growing rapidly, ranking in the top five big cities for population growth for three years in a row (2012–15). Because of the rapid and continued growth, the cost of living in Seattle has been rising sharply, and city leaders are concerned about addressing low-income populations migrating out of the city.[454] Fortunately, unlike in most other states, the statutory code in Washington expressly allows for water and wastewater utilities to offer assistance programs to low-income customers.

About SPU

Seattle Public Utilities (SPU) is an urban public utility providing water and wastewater services to approximately 700,000 people. SPU's service area covers approximately 85 square miles. The low-income customer assistance programs (CAPs) serve approximately 32,000 households.[455] SPU bills on a bi-monthly basis, and bills are combined for drinking water, wastewater, drainage, garbage, and recycling.

About UDP and EAP

SPU has two distinct low-income CAPs.

The Utility Discount Program (UDP) provides a bill discount of 50 percent of the SPU bill for customers with an income at or below 70 percent of the state median income. The Emergency Assistance Program (EAP) provides temporary assistance and debt forgiveness for single-family customers in the form of up to 50 percent off the unpaid bill up to a maximum of $392.

A noteworthy aspect of the UDP is that it provides a bill discount to tenants who do not receive a water bill. SPU works with Seattle City Light to provide combined utility credits on those customers' electricity bills. Though City Light is a separate department, it shares the same billing system as SPU. (At the utility level, SPU rationalizes that a landlord who receives the bill for water, wastewater, and solid waste passes on this cost to the tenants. Because part of each tenant's rent includes this cost, SPU provides assistance to the tenant to cover the relevant portion of the rent.)

Of additional importance, for customers who do receive a bill directly from SPU, the income threshold is based on household size. For customers not billed directly by SPU, a single legislatively specified credit amount is designated depending on the type of dwelling: single-family, duplex, or multi-family.

Legal Framework

In Washington, local government-owned utilities are expressly granted permission under the statutory code to implement discounts for low-income customers and elderly low-income customers.[456] Low-income assistance can be considered as part of the cost of service in developing rate structures. In addition to rate revenues, water and wastewater authorities have statutory permission to solicit voluntary donations.[457] UDP expansion is included in mayor's "Affordability Initiative."

UDP is described as "a cross-subsidy whereby rates for all non-qualifying rate payers of each utility are increased to make up for the foregone revenue resulting from discounts provided to qualifying ratepayers under the program."[458]

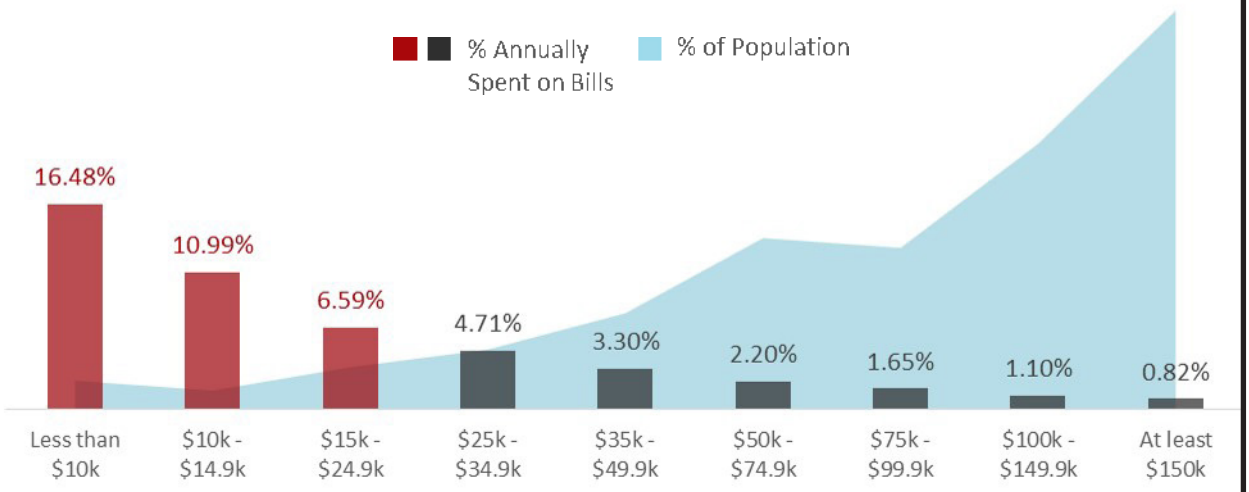
454. Berahzer, Stacey, "Four Factors that Allow One Utility to Provide Financial Assistance to People Who Don't Even Have a Water Account", EFC at UNC School of Government, 2016. http://efc.web.unc.edu/2016/09/15/financial-assistance-people-without-water-account/
455. Personal communication with Tracey Rowland, Program Manager, Low Income Customer Programs, Seattle Public Utilities on 3/6/17
456. See RCW § 74.38.070; RCW § 35.92.020(5) for city and municipal utilities; RCW § 35.67.020(5) for city sewerage services, RCW § 36.94.140(4) for counties.
457. See RCW § 54.52.010; RCW § 57.46.010.
458. http://seattle.legistar.com/View.ashx?M=F&ID=4460646&GUID=99AC6822-431B-4C40-8007-97F4F9A7ABCF

Affordability Assessment for Seattle

Figure 21 shows the household income distribution of Seattle in blue, with the percentage of income residential customers with different incomes would spend on water and wastewater services if they used 5,000 gallons/6.7 ccf. For example, a customer in the $10,000–$14,999 bracket will spend at least 10.99 percent of their income on water and wastewater services.

Figure 21. Affordability of Water & Wastewater Rates in Seattle Assessed at 5,000 Gallons/ Month and 2015 Income Levels*

Under 2017 Rates



* These charts were generated from the "Water and Wastewater Residential Rates Affordability Assessment Tool" created by the Environmental Finance Center at UNC Chapel Hill. This free tool can be accessed at http://www.efc.sog.unc.edu/reslib/item/water-wastewater-residential-rates-affordability-assessment-tool

The following table shows key socioeconomic indicators for Seattle, 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 averages. For Seattle, no indicators are "most stressed."

Figure 22. Affordability for Low-Income Customers in Seattle

	Seattle, Washington in 2015	Washington in 2014	United States in 2014
Median Household Income	**$70,594**	$49,342	$53, 482
% Unemployment	**4.1%**	6.7%	5.8%
% Not in labor force	**27.5%**	36.7%	36.1%
% of all people with income below poverty	**13.5%**	18.5%	15.6%
% with Social Security income	**19.5%**	27.0%	29.3%
% with Supplemental Security income	**3.8%**	5.2%	5.3%
% with cash public assistance income	**3.0%**	1.9%	2.8%
% with Food Stamps/SNAP benefits	**10.1%**	15.2%	13.0%

Sources:

- U.S. Census Bureau's American Community Survey, obtained from American FactFinder, Income tab, Selected Economic Characteristics table from American Community Survey.
- U.S. Census Bureau's American Community Survey, obtained from American FactFinder, B25118: Tenure By Household Income In The Past 12 Month.
- Seattle Public Utilities http://www.seattle.gov/util/MyServices/Rates/WaterRates/index.htm.

Case Study #9: DC Water and Sewer Authority, District of Columbia

Customer Assistance Program: A High Profile Utility Sets Trends in Low-Income Assistance

Background

Like many older urban areas, DC Water faces challenges with aging infrastructure. The District also faces consent decrees. However, the utility has created a reputation for taking innovative approaches to address these challenges. For example, in 2015, the utility worked with the federal government to modify its 2005 consent decree to incorporate green infrastructure. Part of the utility's success as an industry trend-setter is due to its dynamic and very vocal Chief Executive Officer and General Manager, George Hawkins, who started with the utility in 2009. Affordability for low-income customers has been one of his touchstones. As the nation's capital, DC receives a lot of media attention. Dynamic leadership is helping to put a positive spin on that attention.

About DC Water

DC Water and Sewer Authority (DC Water) is an urban public utility in the District of Columbia that provides retail water and wastewater services to 672 million residents and 17.8 million annual visitors. Additionally, DC Water provides wastewater treatment for an additional 1.6 million people in suburban Maryland and Virginia. DC Water has a service area of approximately 725 square miles. DC Water bills customers on a monthly basis, and bills include "charges for water usage, sewer usage, customer metering, impervious area, and a water system replacement fee."[459]

About the Customer Assistance Program

DC Water's low-income assistance program, entitled CAP, is administered by the District's Department of the Environment (DDOE) Energy Office. CAP provides eligible customers with a credit for the first 400 cubic feet of water used each month, which equates to about 3,000 gallons of water and to roughly half of the typical residential customer's monthly use. This discount results in a savings of around $38 per month. Residential CAP customers also get a credit for the Water System Replacement Fee, which results in an additional savings of $6.30 on the average monthly bill.

The qualification for CAP is based on family size and income, and it uses the same process as the federal Low-Income Heating and Energy Assistance Program (LIHEAP). If a customer has already qualified for LIHEAP, he or she is automatically eligible for CAP. If not, customers have to provide proof of income and age, as well as a current utility bill. Additionally, participants must certify that they are aware of water conservation measures to participate in the program. The program lasts for a year after which customers are required to reapply.

Because CAP is essentially mandated by statute (as discussed in the following section), it is funded with general rate revenues.

In addition to CAP's bill discount, DC Water offers other affordability services, such as a lifeline rate, extended payment plans, and temporary assistance for customers in times of financial emergencies.

Legal Framework

Under D.C. Code § 34-2202.16(b-1)(1)-(2), DC Water "shall offer financial assistance programs to mitigate the effect of any increases in retail water and sewer rates on low-income residents of the District, including a low-impact design incentive program." This provision not only allows for affordability programs to be funded with rate revenues, but *requires* such programs to be put in place.

Notably as a reflection of the District's general policy of assisting low-income residents with water and wastewater costs, in addition to the discount currently provided by CAP, on December 1, 2016, the DC Water Board of Directors approved an expansion of CAP, which will allow participants to be eligible for a 50 percent credit on the Clean Rivers Impervious Area Charge (CRIAC). The CRIAC is a wastewater fee that takes into account the amount of impermeable surface on a property. When this new discount goes into effect, currently set for May 2017, CAP customers will receive a total discount of $55.78, which is more than half of

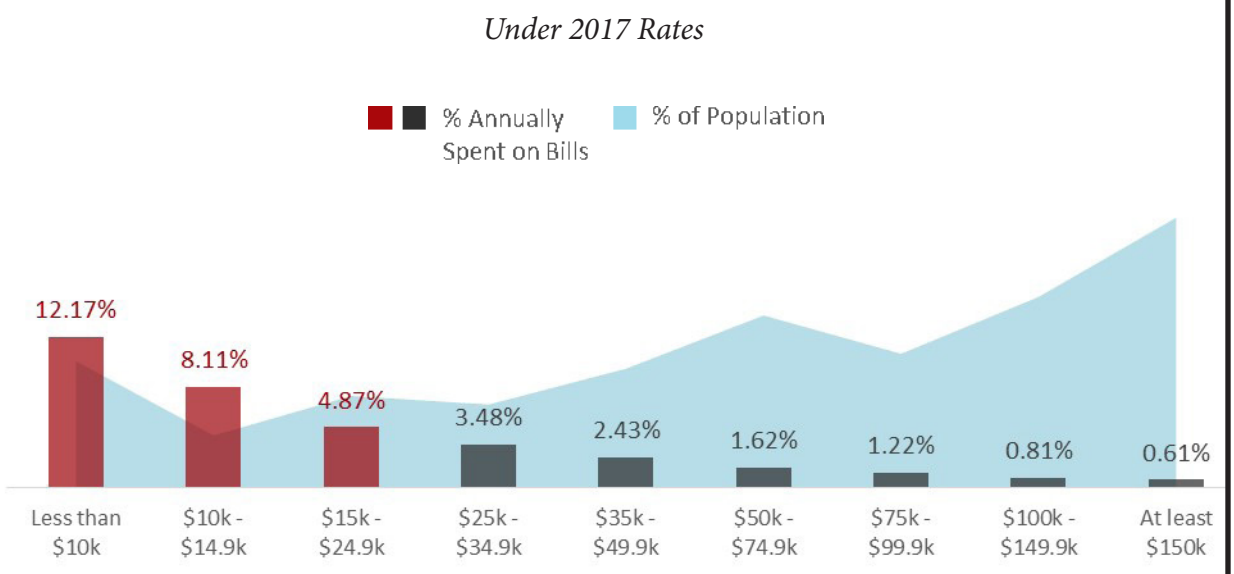
459. https://www.dcwater.com/rates-and-metering

the average monthly bill.

Affordability Assessment for Washington D.C.

The chart that follows shows the household income distribution of the District of Columbia in blue, with the percentage of income residential customers with different incomes would spend on water and wastewater services if they used 5,000 gallons/6.7 ccf. For example, a customer in the $10,000–$14,999 bracket will spend at least 8.11 percent of their income on water and wastewater services.

Figure 23. Affordability of Water & Wastewater Rates in Washington D.C. Assessed at 5,000 Gallons/Month and 2015 Income Levels*



* These charts were generated from the "Water and Wastewater Residential Rates Affordability Assessment Tool" created by the Environmental Finance Center at UNC Chapel Hill. This free tool can be accessed at http://www.efc.sog.unc.edu/reslib/item/water-wastewater-residential-rates-affordability-assessment-tool

Figure 24 shows key socioeconomic indicators for the District of Columbia, with the national averages available for comparison. Values in red indicate that the indicator is "most stressed," as compared to the national averages.

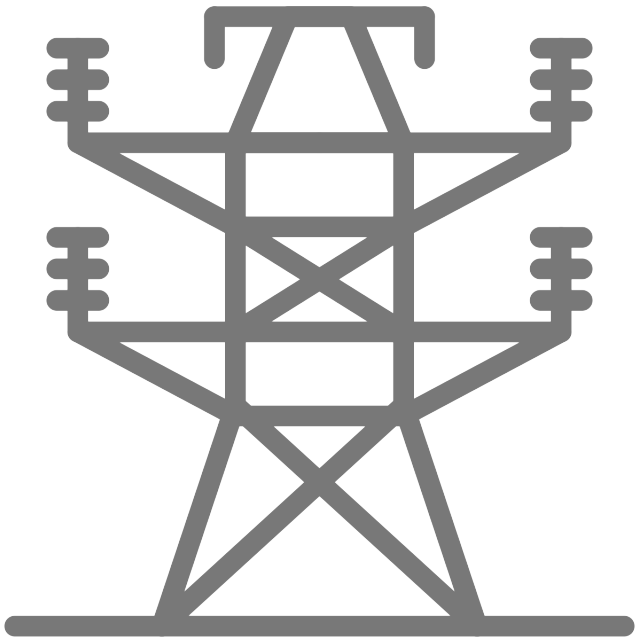
Figure 24. Affordability for Low-Income Customers in Washington D.C

	Washington D.C. in 2015	Washington D.C. in 2014	United States in 2014
Median Household Income	**$47,527**	$49,342	$53, 482
% Unemployment	**7.5%**	6.7%	5.8%
% Not in 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 Stamps/SNAP benefits	**17.5%**	15.2%	13.0%

Sources:

- U.S. Census Bureau's American Community Survey, obtained from American FactFinder, Income tab, Selected Economic Characteristics table from American Community Survey.
- U.S. Census Bureau's American Community Survey, obtained from American FactFinder, B25118: Tenure By Household Income In The Past 12 Months.
- District of Columbia Water and Sewer Authority https://www.dcwater.com/customercare/rates.cfm#effectiverates.

Potential Model Program Elements from Other Utility Sectors



Introduction

This section describes how the water and wastewater utility sector can broaden CAP offerings by adopting certain approaches and financing strategies from energy and telecommunications utilities. Rates for energy (e.g., natural gas and electricity) and telecommunications services have traditionally been much higher than those for water and wastewater services. Therefore, those utilities have already broached the issue of affordability.[460]

The federal government has created customer assistance programs (CAPs) for low-income households through varying legislative initiatives and policies related to energy and telecommunications. Several water and wastewater utilities have already borrowed best practices from these other utility sectors. For example, Detroit's Water Residential Assistance Program uses the practice of payment plans for arrearages which include some debt forgiveness, an approach common among energy utilities. As detailed below, these methodologies, along with suggestions for expanded legislation, may help water and wastewater utilities address low-income affordability issues.

Federal Level

Overview of Main Federal Regulations and Laws Affecting Low-Income CAPs

Energy

The following are the major pieces of national legislation that relate to energy assistance for low-income customers.

Low-Income Home Energy Assistance Program (LIHEAP). Title XXVI of the Omnibus Budget Reconciliation Act of 1981 established LIHEAP. It is one of the largest bill assistance programs available to low-income households. It provides regular funding and emergency contingency funds, both of which can be used for heating and cooling services, crisis assistance, weatherization, administration, and improvement of home energy reliance.[461,462] Pursuant to the act, states must, as a prerequisite to receiving funding, provide an assurance that the greatest benefits go to households with the lowest incomes and the highest energy bills relative to income.

Weatherization Assistance Program (WAP). The U.S. Department of Energy created WAP to assist low-income households by increasing energy efficiency and ensuring health and safety. By law, congressional appropriations are granted to the Department of Energy to fund weatherization initiatives, energy audits, and equipment repairs.[463]

Clean Power Plan (CPP). President Obama and the U.S. Environmental Protection Agency introduced the CPP in 2015. The plan includes the Clean Energy Incentive Program (CEIP), which provides incentives for early investment in energy efficient technologies for low-income communities. However, as of April 2017, the U.S. Supreme Court had not issued a ruling on the constitutionality of the CPP, but has effectively halted implementation. EPA has also signaled that it intends to revise or repeal some or all of the CPP.

Telecommunications

The following are the major pieces of national legislation that relate to telecommunications assistance for low-income customers.

Universal Service Fund. Under the Telecommunications Act of 1996, the goal to provide universal telephone service was modified to include advanced services such as high-speed Internet. The Federal Communications Commission (FCC) established the Universal Service Fund, which includes four programs to implement the act: Connect America Fund (also known as High-Cost Support); Lifeline; Schools and Libraries; and Rural Health Care. Of these four, the two most relevant for water and wastewater model CAPs are as follows:

- *High-Cost Support.* "High-Cost Support (now known as the Connect America Fund) provides support to certain qualifying telephone compa-

460. American Water Works Association, Water Rates, Fees, and Charges, page 216. 2017 (Denver: American Water Works Association 2017).

461. Perl, 2013; U.S. Department of Health and Human Services, 2014.
462. The percentage of Low-Income Home Energy Assistance Program funding that can be devoted to weatherization, as well as to the administration of the program, is limited by statute.
463. U.S. Department of Energy, 2016.

Table 1. Summary of Energy and Telecommunications Federal Assistance Programs

Program	Federally Directed Funding Mechanism	FY 2016 Allocations	Number of Households Served	Average Amount Allocated per Household	Percent Eligible Households
Low-Income Home Energy Assistance Program (LIHEAP)	Congressional appropriations	$3.4 billion[I]	6,190,882[II]	$502/year[III,IV]	30%[XI,XII]
Weatherization Assistance Program (WAP)	Congressional appropriations	$213.8 million[V]	340,158[X,VI]	$2,500 to $6,500[X,VII]	54%[X,XIII]
Universal Service Fund	Telecommunications company contributions	$7.8 billion[VIII,IX]			

I. U.S. Department of Health and Human Services, Office of Community Services: Administration for Children and Families, LIHEAP Fact Sheet.
II. Refers to 2015.
III. Perl, Libby, LIHEAP: Program and Funding (Congressional Research Service 2013).
IV. Refers to 2009.
V. U.S. Department of Energy, About The Weatherization Assistance Program.
VI. Refers to 2010.
VII. Year not specified.
VIII. Universal Service Administrative Company, Frequently Asked Questions—Universal Service.
IX. Fiscal year 2014 allocations.
X. Berahzer, Stacey, Four Factors that Allow One Utility to Provide Financial Assistance to People Who Don't Even Have a Water Account, EFC at UNC School of Government, 2016.
XI. Coates' Canons: NC Local Government Law, Utility Rate Discounts – Can a local government cut its utility customers a break?
XII. Id.

nies that serve high-cost areas, thereby ensuring that the residents of these regions have access to reasonably comparable service at rates reasonably comparable to urban areas."[464]

- *Low-Income Support.* Also called Lifeline, this program assists low-income customers by helping to pay for monthly telecommunications charges so that services are more affordable. Customers apply for Lifeline-supported service through their local telecommunications company or a designated agency. This company or agency then seeks reimbursement from Lifeline for the revenue it forgoes in providing discounted service to eligible low-income consumers.[465]

In terms of federal programs, the U.S. Department of Agriculture, Appalachian Regional Commission, Economic Development Administration, Office of Special Education and Rehabilitative Services, Health Resources and Services Administration, and Department of Housing and Rural Development all also offer various telecommunications affordability programs. The federal programs described above have designated funding sources, either from general tax revenues or from taxes or fees specifically dedicated to the assistance program. However, apart from general utility allowances related to subsidized housing,[466] there is no federal regulation or federal funding specific to affordability in the water and wastewater sector.

Adaptations in the Telecommunications Sector

The telecommunications industry has been perhaps the epitome of new technologies and changes in use patterns over recent decades. The industry has had to

464. Federal Communications Commission, Universal Service—Federal Communications Commission.
465. Federal Communications Commission, Getting Started—Lifeline Program.
466. Other than HUD "utility allowances" to public and assisted housing, there are utility allowances to housing subsidized through the federal Low-Income Housing Tax Credit and through the federal HOME program, as well as utility allowances for other federally subsidized housing (e.g., through Community Development Block Grants).

adapt its programs to meet the changing needs of customers. In 1985, Lifeline simply provided a discount on telephone service to low-income customers. However, "universal service,"[467] where "all Americans should have access to communications services" is a cornerstone of the FCC. So, by 2016, the Lifeline Modernization Order added broadband Internet service as one of the supported services in an attempt to bridge the digital divide. Also, the number of mobile voice minutes supported is scheduled to increase from 500 in December 2016 to 1,000 minutes by December 2018.[468]

The water and wastewater sector has been experiencing many changes as well. "Defining a Resilient Business Model for Water Utilities,"[469] describes the "new normal" under which the sector operates. This includes rising water and wastewater rates and lower per capita water use. To adjust, the report highlights how some utilities are experimenting with new types of rate structures. For example, water-related costs are showing up on more water and wastewater bills in the form of "stormwater fees" or "watershed protection fees."[470] News headlines about disconnections violating human rights (somewhat analogous to the FCC's "universal access" principle) and utility cover-ups of lead-contaminated drinking water also influence the emerging reality of water and wastewater management. The overall effect is an increase in what most households are spending on water-related services. The sector will need to be adaptive in creating and tweaking programs, similar to steps taken by the FCC, in order to address the new face of affordability.

Water and Wastewater

There is no federal regulation or federal funding associated with affordability in the water and wastewater sector. The federal government could consider designing and funding a national water, wastewater, and stormwater[471] affordability program. The discrepancy between national policies on energy versus water is not unique to the United States. Ofwat, the entity that regulates water and wastewater in England and Wales, has shared a similar observation that "[the Government] needs to establish a clear framework to deliver its desired outcome on the affordability of water. For example, in the energy sector the Government has taken a lead on fuel poverty, defining the problem, setting targets and establishing programmes and financial support to help customers manage their bills."[472, 473]

Perhaps related to the absence of federal regulations and associated funding streams for water and wastewater programs, states have not been very active on the issue either. In order to receive the federal funds for programs such as LIHEAP, states are driven to have certain provisions and regulations in place.

State Level

Absence of State Regulations and Laws Addressing Low-Income Water and Wastewater Affordability

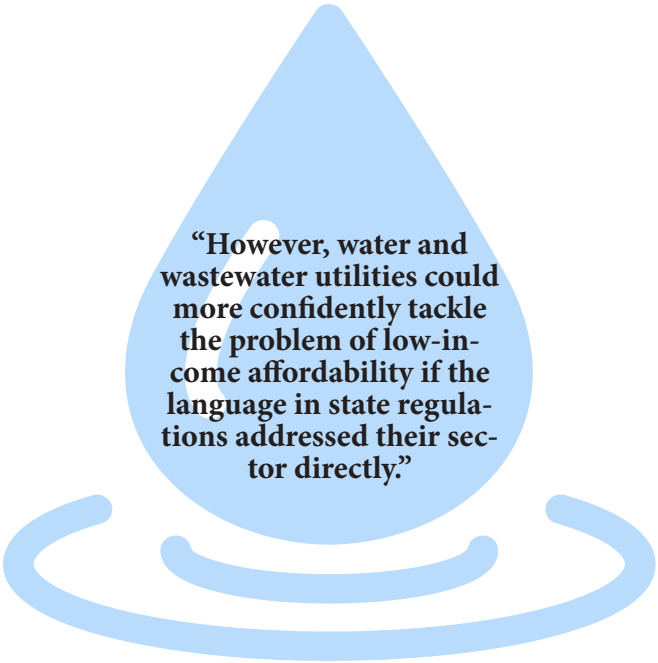
In reviewing state-level regulations related to affordability, the authors find that many states have specific guidelines and requirements for assistance to low-income energy utility customers. This is echoed in the American Water Works Association's M1 2017 manual, which states that "[n]early every state regulatory commission has addressed the issue of affordable energy bills and the ability of low-income customers to pay those bills." Curiously, these state-level guidelines seldom explicitly include water and wastewater utility customers. As an example, the Vermont Public Service Board (PSB), under Vt. Stat. Ann. tit. 30, § 203(3), is required to set certain telephone utility rates in order to enable the state to participate in the FCC's Lifeline, a program that assists low-income customers with telecommunications bills. Additionally, the statute provides that the Vermont PSB may approve a rate schedule that provides reduced rates for low-income electric utility consumers "better to assure affordability." Similar to so many other states, there is, however, no similar provision in the Vermont statutes providing for reduced rates for low-income water or wastewater customers. In some circumstances, it has been assumed that because these guidelines refer to utilities, they can be interpreted to extend to water and wastewater. However, water and wastewater utilities

467. Federal Communications Commission, Universal Service—Federal Communications Commission.
468. Federal Communications Commission, Lifeline Program for Low-Income Consumers—Federal Communications Commission.
469. Hughes, Jeffery A; Mary Tiger; Shadi Eskaf; Stacey Isaac Berahzer; Sarah Royster; Christine Boyle; and Dayne Batten.
470. City of Raleigh, Utility Rates, Deposits & Other Charges
471. Related to stormwater management, in December 2016, DC Water added that participants in its customer assistance program (CAP) would be eligible for a 50% credit on the Clean Rivers Impervious Area Charge (CRIAC). This credit meant an additional $11.12 off the average monthly bill for CAP customers.
472. Ofwat 2010, 44, Response to Walker Report.
473. American Water Works Association, "Water Rates, Fees, and Charges" 2017, Denver: American Water Works Association, 2016.

could more confidently tackle the problem of low-income affordability if the language in state regulations addressed their sector directly. Silence in the statutes can be permission or prohibition depending on the context, scope of general authority, and interpretation by both state commissions and judiciaries, making the boundaries unclear for designing CAPs. As the case studies in this report show, some utilities are therefore using creative solutions to develop CAPs.

Suggestions on how States can be More Explicit on Affordability Program Parameters

This report focuses on using rate revenues to fund CAPs. Capturing non-consumer monies for CAPs is one way for water and wastewater utilities to generate funding without fear of transgressing any state limitations on cross-subsidies. However, states interested in being more explicit about the parameters of water and wastewater CAPs funded through rate revenues may consider making some of the following changes:



"However, water and wastewater utilities could more confidently tackle the problem of low-income affordability if the language in state regulations addressed their sector directly."

- Simply **add "water and wastewater" to some of the existing areas of state law** where energy or telecommunications affordability is discussed. (States should look at their relevant state laws that reflect the differences between the sectors to make sure that this translates properly.)

- **Express whether "affordability" or "low-income customers" can be assisted using utility rate revenues**. This fundamental question has been the focus of this report because, especially for utilities with large low-income populations, funding apart from rate revenues may not be adequate to fully address affordability issues.[474] The City of Atlanta provides a good example. For many years, Atlanta used foundation grants, individual donations, service line insurance funds, and so forth but eventually the city tapped into rate revenues for its CAP in 2016.

On the question of using rate revenues, Washington State provides a clear example of a statutory code that expressly provides, and even recommends, that water and wastewater utilities use rate revenues to fund CAPs.[475] Low-income customer assistance is considered as part of the cost of service in developing rate structures.[476]

On the other hand, Arkansas provides an example of a state where there is relatively clear indication that rate revenues is not to be used for funding CAPs. Ark. Code Ann. § 14-199-101 states that the use of "surplus revenues" is limited to a list of specific purposes. Low-income CAPs for water and wastewater utilities is not on that list, implying that these utilities do not have authority to use rate revenues to finance these programs. Case law in Arkansas also highlights that commission-regulated utilities are not allowed to use rate revenues to fund CAPs either.[477] The court held that the Arkansas Public Service Commission did not have the authority to require or approve rates designed to fund

474. The Customer Assistance Program Cost Estimation Tool (CAPCET), an Excel-based tool, can help determine how much a customer assistance program (CAP) may cost for a specific utility. The CAPCET and accompanying tutorial video are available at http://www.waterrf.org/resources/pages/PublicWebTools-detail.aspx?ItemID=24.

475. *See* RCW § 74.38.070; RCW § 35.92.020(5) for city and municipal-owned utilities, RCW § 35.67.020(5) for city wastewater services, and RCW § 36.94.140(4) for counties.

476. States, such as Maine, Massachusetts, New York, New Jersey, Pennsylvania, and Ohio, all have utilities that have adopted consumer-funded programs without the state providing explicit statutory authorization.

477. Arkansas Gas Consumers, Inc., v. Arkansas Pub. Serv. Comm'n, 354 Ark. 37, 61, 118 S.W.3d 109, 124 (2003).

CAPs. Although this case involved a natural gas utility, it applies to all commission-regulated utilities, and it included strong language that low-income customer assistance "is a question of state and federal legislation."

- **Adjust payment plan obligations.** This method is one of the more common ways to respond to inability to pay. For example, states can place ceilings on the monthly installment payment to improve collections. In addition, extending the length of payment plans, allowing renegotiated payment plans upon default, or both, are approaches that have been adopted to improve collections.

  In essence, programs directed at improving payment patterns and practices of low-income customers are more likely to be found to be acceptable decisions by rate-setting bodies, while continuing to act within traditional regulatory principles. The Pennsylvania Public Utility Commission (PUC) has based its low-income energy affordability programs, for example, on the finding that they "provide alternatives to traditional collection methods for low-income, payment troubled customers. . .[and are] designed to be a more cost-effective approach for dealing with issues of customer inability to pay than are traditional collection methods."[478]

- **Adopt an arrearage management program.** In approving arrearage or debt forgiveness as part of a suite of low-income CAPs, for example, the Pennsylvania PUC stated such a program was needed to allow low-income customers "to pay their bills in full and to keep their service. . . to address realistically these customers' problems and to stop repeating a wasteful cycle of consecutive, unrealistic payment agreements that cannot be kept, despite the best of intentions, followed by service termination, then restoration, and then more unrealistic agreements."[479]

  Some states are also allowing customers to choose their payment date. Many low-income households are very dependent on their next paycheck to cover their utility bills. Allowing these customers to choose the date that their bill is due can help them in managing their finances. PUCs in Oregon and Arkansas have adopted this choice in billing date option. In Oregon, energy utilities cannot impose a late fee on a residential customer unless the customer was offered the option of selecting his or her own bill date. Arkansas's "extended due date policy" allows some customers to ask utilities to change the payment due date to match their receipt of income.[480]

Utility Level

While designing the CAP at the utility level is not the focus of this document, there are a couple of ideas related to fees and delinquent charges that a utility can contemplate:

- **Consider waiving late fees and reconnection fees.** Charging low-income customers late fees and reconnection fees may exacerbate a genuine affordability problem. To address this, in some states, gas and electric companies, for example, have restricted use of late fees.[481] A related option is for the utility to not charge late fees on arrearages that fall below a certain dollar threshold.

- **Consider waiving security deposits for customers demonstrating a financial hardship.** The eligibility criteria for a CAP is an important part of program design by the utility. Hardship can be demonstrated by showing that the customer receives assistance through designated public assistance programs.[482] Hardship can also be established through a demonstration that the customer is, or is part of a

478. Policy Statement on Customer Assistance Programs (CAP), Docket No. M-00920345, at 2 (July 2, 1992). The Pennsylvania Public Utility Commission's (PUC) decision was supported by the PUC's Bureau of Consumer Services, which had reported: "The Bureau's position is that ratepayers are already bearing significant costs attributable to the problems of payment troubled customers and uncollectible balances. Further, BCS believes that incorporating the following recommendations into utility operations will lead to a more rational and cost effective use of existing resources. Over time, proper implementation of the recommendations may result in a reduction of total utility costs." Bureau of Consumer Service, Final Report on the Investigation of Uncollectible Balances, Docket No. I-900002, at 120 (February 1992).

479. Pennsylvania Pub. Util. Comm'n v. Columbia Gas of Pennsylvania, R-891468, Final Order, at 159 (September 19, 1990).

480. National Consumer Law Center 30–42 (2014), http://www.nclc.org/images/pdf/pr-reports/report-water-affordability.pdf

481. Examples include Massachusetts, New Hampshire and Wisconsin (Mass. Gen. Laws ch. 164, § 94D, N.H. Code Admin. R. Puc § 1203.03(g); see also Wis. Adm. Code PSC § 185.36(1)(b).

482. N.H. Code Admin. R. Puc § 1203.03(g); see also Wis. Adm. Code PSC § 185.36(1)(b).

household with, a person whose circumstances threaten a deprivation of the necessities of life for himself or herself or dependent children of his or her household if payment of a security deposit is required.[483]

- **Consider family or household size as an eligibility factor.** The Family Electric Rate Assistance[484] program in California provides a 12 percent electric bill discount for income-qualified households of three or more people.[485] Many water and wastewater utilities have adopted increasing block rates structures in order to encourage water conservation and efficiency. However, such a rate design can negatively affect large families (i.e., higher amounts of water use may not represent discretionary use). For utilities with these types of rate structures in particular, considering the number of children or members of a household may be an important factor in designing affordability programs. In order to keep the conservation incentive, a utility may cap the level of usage for this type of low-income CAP. Water budget billing is one consideration in addressing the issue as well.

  Most water and wastewater utilities are not well equipped to verify family size, or other common eligibility criteria such as income level. Such activities are not in the utilities' main line of business. Instead, these sort of administrative or support services are ideally made the responsibility of a charitable or human service partner organization within the community being served. Utility partnership with a well-respected organization can also help to boost the reputation of the utility within the community.

483. Conn. Agencies Regs. § 16-11-68(b); see also New York Comp. Codes R. & Regs. tit. 16, § 11.l12(f); see also Ohio Admin. Code 4901:1-17-03(A)(4).
484. California Public Utilities Commission, *CARE/FERA Programs*, http://www.cpuc.ca.gov/General.aspx?id=976.
485. The number of children in a household is one of the eligibility criteria for the national WaterSure program in England and Wales.

Potential Model Program Elements from Other Countries

Governments around the world are increasingly concerned with the costs of providing water and wastewater services to their citizens. This issue generally focuses on ensuring that the "true cost" of providing these services is reflected in the rates.[486] However, water service managers, working for nations, states, cities, and private water companies, focus more on the affordability of water and wastewater services. Examining ongoing affordability efforts in other countries can provide insightful lessons for federal, state, and local governments in the United States that are attempting to address affordability issues.

Efforts in Spain, as well as in England and Wales, illustrate that the crucial first step when developing customer assistance programs (CAPs) is to identify individuals who may face vulnerability in paying water and wastewater service rates. These model countries demonstrate how the United States, at all levels of government, could consider a more comprehensive approach for determining vulnerable individuals. The most common method for determining eligibility for CAPs involves some measure of income as its baseline criteria; however, as is discussed below, affordability programs in Spain, England, and Wales are also available to large families and to individuals afflicted with a medical condition requiring high water use. Additionally, to improve access to affordability programs, the U.S. government could draw on the example set forth in England and Wales and consider federal legislation that requires all water managers to provide some type of CAP.

Spain

As a member state of the European Union, Spain's water use and utility rate policies are guided in part by the EU Water Framework Directive (WFD).[487] The WFD requires member states to develop specific plans for management of water resources with the primary underlying principle of true or actual cost recovery.[488] In Spain, no national plan governing water utilities with respect to water use and rate setting has been adopted, leaving the WFD as the overarching governing policy.[489]

Additionally, Articles 25 and 26 of Law 7 grant jurisdiction over urban water supply, sanitation, and wastewater treatment to municipalities, in a manner similar to how home rule functions in some U.S. states.[490] Water utilities can be managed directly by municipalities or indirectly through cooperative agreements including commercial companies and public–private partnerships. Although they have different governing structures, the United States can learn from Spain's local government control of water utilities and affordability measures, particularly if CAPs continue to be developed only at the state and local level.

Given the breadth of local government control in rate setting, water utility rates vary widely in the ratio between fixed and variable fees, the number of variable fee blocks, the boundaries of the blocks, and the unit price of each block.[491] Although water use and rate setting policy is driven by recovering the true cost of providing water services, access to water services is considered a right of general interest.[492] Spain touts near universal access to urban water services and some of the lowest water utility rates in developed countries.[493] A major reason for the low water utility rates is that the public budget usually finances investment and maintenance costs of wholesale water services, meaning the water utility rates in Spain are not intended to—nor do they—truly cover all the costs of providing the services.[494] Rates for all water utilities must be approved by the public administration, which for 96 percent of Spanish municipalities is a municipal council.[495] Furthermore, rates must be fair and equitable and viewed as fair and equitable by different users.[496] On average, the urban water utility bill represents approximately 0.8 percent of annual expenditure of Spanish households.[497]

Despite the low cost of water services, affordability remains an impediment to accessing water for some, particularly given the ongoing economic crisis in Spain.[498] Municipal control of water use and rate setting has led to a number of methods being used to address affordability,[499] some of which U.S. states with

486. Note that although "rates" is the more common term in the U.S., many other countries, including England and Wales and Spain, more often use the term "tariff."
487. "Urban Water Tariffs in Spain," 1463.
488. Id.
489. Id.
490. "Urban Water Tariffs in Spain," 1459.
491. Urban Water Tariffs in Spain," 1461.
492. Though not a human right, "Urban Water Tariffs in Spain," 1473.
493. "Urban Water Tariffs in Spain," 1470.
494. "Urban Water Tariffs in Spain," 1464.
495. "Urban Water Tariffs in Spain," 1460.
496. "Urban Water Tariffs in Spain," 1457.
497. "Urban Water Tariffs in Spain," 1470.
498. Id.
499. "Urban Water Tariffs in Spain," 1470–73.

municipalities operating under home rule could follow. For example, some municipalities provide guaranteed access to a minimum vital supply of water. El Prat de Llobregat uses a solidarity fund to guarantee access to 150 liters (or 40 gallons) per person per day.[500] This minimum guaranteed water supply is somewhat comparable to municipal-owned water utilities in the United States, where some minimal consumption (or "subsistence block") is provided with the fixed charge. Additionally, in other Spanish municipalities, water cut-offs for families are prohibited.[501] The most successful and common CAP developed and approved by municipalities is a rate rebate, or bill discount, for large families (defined as families of five or more members).[502] Rate rebates aim to alleviate perceived inequity caused by variable or volumetric fees and offer assistance to people who are more likely to face vulnerability.

Sources:

- John Boland, "Consumer Tariffs: How Can Theory Guide Us?", OECD, http://www.oecd.org/env/resources/40014525.pdf
- Francisco González-Gómez, Miguel A. García-Rubio, and Jorge Guardiola, "Introduction: Water Policy and Management in Spain," International Journal of Water Resources Development 28, no. 1 (2012): 3-11, doi:10.1080/07900627.2012.640604.
- "OECD Expert Meeting on Sustainable Financing for Affordable Water Services: from Theory to Practice.", OECD, http://www.oecd.org/env/resources/40016024.pdf
- Anne Oliver, "Pricing water services: economic efficiency, revenue efficiency and affordability.", OECD, http://www.oecd.org/env/resources/40014604.pdf
- USAID & Evensen Dodge International, "OECD Expert Meeting on Sustainable Financing for Affordable Water Services: from Theory to Practice. Alliance for Subnational Infrastructure Financing., OECD, http://www.oecd.org/env/resources/40016024.pdf

England and Wales

Since 1989, water and wastewater utility services in England and Wales have been operated by private water companies and regulated by Ofwat, a central economic regulator. The Water Industry Act (enacted in 1991 and substantially revised in 1999) provides the overarching regulatory framework for water utility policies. The EU Water Framework Directive also affects water utilities, but the impending exit of England and Wales from the EU may change the impact of this international law on service requirements. More than 60 percent of water bills in England and Wales are calculated based on property value, not by using a metering device, which is a major difference from the near universal use of meters in the United States.[503] The average household water bill contains a combination of charges for potable water supply, wastewater, surface water runoff, and highway drainage and annually costs an average of $483, though there can be substantial regional variations.[504] Although privatization and lower occurrence of meters are important differences between these countries and the United States, the United States can gain insight from some of their legislative initiatives.

Water customers in England and Wales, as compared to customers in other Organisation for Economic Co-operation and Development countries, hold one of the highest levels of debt due to unpaid bills. Several factors play into this debt level but maybe none more so than affordability. Since the privatization of water services in 1989, water utility rates have risen by 40 percent, excluding rises due to inflation.[505] Although England and Wales do not offer a comprehensive support program for vulnerable people who cannot pay their water and wastewater bills, the countries' governments have protected access to water as a right of common interest and, more recently, implemented specific CAPs. The Water Industry Act of 1999 prohibited private water companies from disconnecting water and wastewater services to households for nonpayment of bills. The ban on disconnections guarantees some form of access to water and wastewater services, but, even for customers who choose not to, or who are

500. "Urban Water Tariffs in Spain," 1471.
501. "Urban Water Tariffs in Spain," 1473.
502. "Urban Water Tariffs in Spain," 1471.
503. Water UK, Metering – get the facts, http://www.water.org.uk/consumers/metering.
504. For instance, customers of South West Water perennially face the highest bills for water services. From 2012–13, these water customers paid an average of $209 more than customers in other similar areas. "Affordable Water," DEFRA, 8 (2011); http://www.ccwater.org.uk/waterissues/currentkeywaterissues/affordability/.
505. "Affordable for all," Ofwat, 3.

unable to pay their bills, access comes at the cost of indebtedness and credit harm. Additionally, the Floods and Water Management Act in 2010 enabled private water companies to introduce local customer-funded social rates (or affordability programs). This legislative change significantly freed private water companies to provide cross subsidies in the development of CAPs by using rate revenues to subsidize low-income customers' rates.[506]

WaterSure, a national program that is implemented locally by private water companies, is one of the most commonly used CAPs in England and Wales. Benefitting more than 42,900 households in 2011,[507] the WaterSure scheme allows low-income customers with a high essential use of water to have their bills capped at the utility's average bill regardless of the amount of water used by their household. WaterSure is the only CAP that Ofwat mandates all private water companies provide to their customers. Receiving benefits from WaterSure involves a two-step eligibility process. First, any member of the household must receive benefits from other specific assistance programs (such as Universal Credit, Jobseeker's allowance, housing benefit, income support, and so on). This first eligibility requirement mimics the eligibility requirements based on household income used by some CAPs in the United States. Second, any member of the household needs to have a medical condition which necessitates high use of water or be in receipt of child benefits for three or more children under age 19 living in the household. The second eligibility requirement makes WaterSure a unique example of an affordability program that targets not only the financially vulnerable, but specifically those whose vulnerability is exacerbated by having certain medical conditions or a large family with children. An additional, and quite limiting requirement for WaterSure eligibility is that the household must have metered water services.[508] Under a 2010 amendment to the Floods and Water Management Act, private water companies are permitted to fund, and have funded, their individual WaterSure programs through cross subsidization of bills paid by other utility customers.[509] The government estimates that WaterSure customers benefited from an average discount of $150 on their water bills and $156 on their wastewater bills at an average cost of an extra $0.61 per year to the bills of noneligible households.[510]

Sources:

- "Affordable for all: How can we help those who struggle to pay their water bills?", Ofwat, http://www.ofwat.gov.uk/wp-content/uploads/2016/01/prs_inf_afford.pdf
- Changes to WaterSure as a result of the introduction of Universal Credit.", Department for Environment, Food and Rural Affairs, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82677/watersure-condoc-121018.pdf
- "Customer assistance.", Ofwat, http://www.ofwat.gov.uk/households/customer-assistance/
- "What is Watersure?" ,The Consumer Council for Water, http://ccwater.custhelp.com/app/answers/detail/a_id/406

506. Consumer Council for Water, Affordability of Water and Sewerage Bills, http://www.ccwater.org.uk/waterissues/currentkeywaterissues/affordability/.
507. "Changes to WaterSure as a result of the introduction of Universal Credit," DEFRA, 6 (2011).
508. This requirement is less relevant to U.S. utilities.
509. "Changes to WaterSure as a result of the introduction of Universal Credit," DEFRA, 6 (2011).
510. Id.

Appendix A: Types of Water and Wastewater Rate Structures

The vast majority of water and wastewater utilities in the United States have rate structures that are classified as "Uniform," "Increasing Block," or "Decreasing Block." Each of these three types usually has two components. The first is a "base charge" that is fixed per billing period, regardless of the amount of water used, or wastewater generated. The second part of these three rate structures is the "volumetric charge." Uniform rates charge the same price for every 1,000 gallons of water. Increasing Block structures, also called Inclining Block, are rate structures where the utility charges a higher price at larger volumes of water and are usually geared toward water conservation and efficiency. For example, a utility might charge $4.00 per 1,000 gallons for the first 5,000 gallons and $8.00 per thousand gallons for all subsequent usage. Decreasing Block structures, also called Declining Block, operate on the same principle, but in reverse. In these structures, the price of water per 1,000 gallons decreases at larger volumes of water. Relatively few water and wastewater utilities charge a "flat fee," independent of volume of water used, for water and wastewater service.

When it comes to providing CAPs, there are a few rate-related variations to note. First, a utility can establish a separate rate structure for low-income customers, where they pay less for the same amount of water compared to "regular" customers. This situation is sometimes referred to as a "variable rate," meaning that there is more than one rate structure. This can be confusing because the term "variable" is also widely used in the industry to refer to the "volumetric" charge described above.

There is also a distinction between income-based qualification processes and income-based rate structures. Many existing CAPs have income-based qualification processes to identify who qualifies to participate in the CAP. Once qualified, these low-income customers often get a comparable bill discount, regardless of their specific income (e.g., 40 percent discount in the case of Cleveland Division of Water). This is distinct from an income-based rate structure, such as is being explored by the Philadelphia Water Department, where each residential customer's bill is based on actual household income. Therefore, different low-income customers would pay different amounts for the same volume of water or wastewater, dependent on each customer's income. This report does not distinguish much between these two approaches, but instead focuses more on whether rate revenues can be used to fund either variation of approach.

Appendix B: States by Authorization for Affordability Programs Using Rates Revenue

State	Commission regulation of investor-owned utilities	Commission regulation of government owned utilities	Commission-Regulated: Ability to implement customer assistance programs funded by ratepayer revenues	Noncommission-Regulated: Ability to implement customer assistance programs funded by ratepayer revenues
Alabama	yes	no	⚠	⚠
Alaska	yes	no	⚠	⚠
Arizona	yes	no	⚠	⚠
Arkansas	yes	no	STOP	STOP
California	yes	no	GO	STOP
Colorado	yes	no	STOP	⚠
Connecticut	yes	no	⚠	⚠
Delaware	yes	no	⚠	⚠
Florida	yes	no	⚠	⚠
Georgia	no	no	N/A	⚠
Hawaii	yes	no	⚠	⚠
Idaho	yes	no	⚠	⚠
Illinois	yes	no	⚠	⚠
Indiana	yes	some	⚠	⚠
Iowa	yes	no	⚠	⚠
Kansas	yes	no	GO	⚠

GO	**Explicitly Authorized**
⚠	**No express authority**, but nothing in the statutes or case law seems to limit an entity from implementing a program
⚠	Something in the statutes or case law, such as ambiguous language, limiting terminology, cost of service requirements, etc., suggests the **potential for challenges**
STOP	**Specifically prohibited**

Kentucky	yes	no		
Louisiana	yes	no		
Maine	yes	yes		
Maryland	yes	no		
Massachusetts	yes	no		
Michigan	no	no	N/A	
Minnesota	no	no	N/A	
Mississippi	yes	no		
Missouri	yes	no		
Montana	yes	no		
Nebraska	yes	no		
Nevada	yes	no		
New Hampshire	yes	no		
New Jersey	yes	no		
New Mexico	yes	no		
New York	yes	no		
North Carolina	yes	no		
North Dakota	no	no	N/A	
Ohio	yes	no		
Oklahoma	yes	no		
Oregon	yes	no		
Pennsylvania	yes	yes		
Peurto Rico	no	no	N/A	
Rhode Island	yes	yes		
South Carolina	yes	no		

South Dakota	no	no	N/A	
Tennessee	yes	no		
Texas	yes	under appeal		
Utah	yes	no		
Vermont	yes	no		
Virginia	yes	no		
Washington	yes	no		
Washington D.C.	N/A	no	N/A	
West Virginia	yes	yes		
Wisconsim	yes	yes		
Wyoming	yes	no		

Appendix C: Explanation of Data Sources for Statistics Section in State Summaries

Sample State Summary Text Box

Alabama

(A) **State Population (2016):** 4,863,300

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

(C) **Poverty Rate (2015):** 18.8%

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

(E) 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.

(F) **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, 2016 Safe Drinking Water Information System, 2011 Drinking Water Infrastructure Needs Survey, and 2012 Clean Watersheds Needs Survey. See Appendix C for more details.

(A) – **State Population** was sourced from the U.S. Census Bureau. Annual estimates of residential population as of July 1, 2016, were utilized. According to the U.S. Census Bureau, "the estimates are based on the 2010 Census and reflect changes to the April 1, 2010 population due to the Count Question Resolution program and geographic program revisions."[511]

(B) – **Median Household Income** was sourced from the U.S. Census Bureau *2011–2015 American Community Survey 5-Year Estimates*. Median household income is representative of 2015 median household income in the past 12 months (in 2015 inflation-adjusted dollars).[512]

(C) – **Poverty Rate** was sourced from the U.S. Census Bureau *2011–2015 American Community Survey 5-Year Estimates*. Poverty rate is representative of the 2015 percentage of individuals below the poverty level for the population whose poverty status was determined for the given state. The poverty level for the country as a whole in 2015 was 15.5%.[540]

(D) – **Typical Annual Household Water and Wastewater Expenditures** were calculated from one of three main sources of data depending on the state: the 2015–17 Environmental Finance Center at the University of North Carolina at Chapel Hill's rates surveys and Financial Sustainability and Rates Dashboards, the 2015 *Consumer Expenditure Survey* from the U.S. Bureau of Labor Statistics (BLS),[513] and the 2016 *Water and Wastewater Rate Survey* from the American Water Works Association (AWWA) in coordination with Raftelis Financial Consultants, Inc. (RFC).[514]

When calculating the typical water and wastewater expenditures from the Environmental Finance Center at the University of North Carolina at Chapel Hill's rates surveys and Financial Sustainability and Rates Dashboards, water and wastewater expenditures are indicative of the average customer payment for and wastewater services at the "inside" city rates (where applicable) using 5,000 gallons per month (except SC: 5,610 gallons/month). On a state-by-state basis, data varies by date (rates range from the years 2015–17) and sample size (approximately 150–500 utilities).

From the *Consumer Expenditure Survey*, 2015 Public Use Microdata collected from the BLS Interview Survey was utilized. In this database, "Water and Other Public Services" is the area that most relates

511. United States Census Bureau. "Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2016." American Fact Finder. 2014. Web.

512. United States Census Bureau. "Selected Economic Characteristics 2011-2015 American Community Survey 5-Year Estimates." American Fact Finder. 2015. Web.

513. Bureau of Labor Statistics. "Consumer Expenditure Survey: Public-Use Microdata (PUMD)." United States Department of Labor, 2017. Web.

514. American Water Works Association. "2012 Water and Wastewater Rate Survey." American Water Works Association. 2013. Web.

to water and wastewater use. The corresponding Universal Classification Codes used from the general area of "Water and Other Public Services" were "water and sewerage maintenance- renter," and "water and sewerage maintenance – owned home; portion of management fees for utilities in condos and coops (non-vacation)." The *Consumer Expenditure Interview Survey Public Use Microdata User's Documentation* states, "Section 4, Part D collects expenditures on fuels and utilities for the household residence and other owned properties as well as rented vacation properties, including electricity, natural gas, other fuels, water service, sewer maintenance, garbage collection, and cable television or satellite service."[515] The specific metrics are indicative of quarter time periods; therefore, typical annual water and wastewater expenditures were calculated accordingly. Typical water and wastewater expenditures are representative of a weighted average, or the amount customers pay for water and wastewater services. The *Consumer Expenditure Survey* does not specify amount of water used per month. On a state-by-state basis sample size ranges from approximately 5–400 respondents.

As a disclaimer, the BLS does not calculate or publish state-level expenditures. The *Consumer Expenditure Survey* releases annual public use microdata, which contains state identifying information. For confidentiality reasons, some state codes have been made anonymous for some or all sampled consumer units within that state. The BLS notes that the *Consumer Expenditure Survey* was not designed to produce precise state level estimates and is subject to large variances. Additionally, state level population estimates made in the *Consumer Expenditure Survey* may also vary from true state level population.

Typical water and wastewater expenditures calculated from the AWWA in coordination with RFC were taken from the *2016 Water and Wastewater Rate Survey*. Typical water and wastewater expenditures are representative of the amount customers pay for approximately 7,480 gallons per month at the "inside" city rate. On a state-by-state basis sample size ranges from 5–10 utilities.

As stated in the AWWA/RFC survey, sorting the sample by state does not necessarily yield comparable and representative results due to small sample size. Therefore, discrepancies may exist.

Typical water and wastewater expenditures were not reported for the following states: Idaho, Montana, New Hampshire, North Dakota, Rhode Island, South Dakota, Vermont, and West Virginia.

(E) **– Community Water System and Publicly Owned Treatment Works** statistics were sourced from the *2016 Safe Drinking Water Information System* (Quarter 2)[516] and the *2012 Clean Watersheds Needs Survey*,[517] respectively. (Within the text box, community water systems [CWS] statistics are developed from a regulatory-based focus. Therefore, CWS statistics are more closely aligned with populations served; this is especially important for small water utilities, as these entities are more often aligned with affordability concerns. Conversely, publicly owned wastewater treatment works [POTWs] statistics are more closely aligned with the amount of wastewater treated or flow by currently operating collection systems because these factors are more pertinent to the regulation of wastewater.)

State population may vary in comparison to CWS and POTWs population served due to sampling date. As explained above, the different sources of data in this text box have different publication dates. State population and population served may also differ because some water and wastewater utilities cross state boundaries. The number of POTWs is defined as the currently active number of facilities in operation, whereas the population served is defined as the present residents actually receiving treatment. Therefore, populations may vary. Discrepancies may also exist due to double counting of populations that share or overlap in population service areas receiving treatment. For example, some wholesale utilities double count number the people who are being served by a retail utility purchasing water from the wholesale utility. Furthermore, according to the U.S. Environmental Protection Agency (EPA), statistics supplied by the EPA should be used as estimates and should not be used as precise measurements. The EPA states that inaccuracies do exist and

515. United States Department of Labor. "2015 Users' Documentation Interview Survey Public-Use Microdata (PUMD) Consumer Expenditure." Bureau of Labor Statistics Division of Consumer Expenditure Survey (2016). Web.

516. United States Environmental Protection Agency. "SDWIS Federal Reports Search." Environmental Protection Agency. 2016. Web.

517. United States Environmental Protection Agency. "CWNS 2012 Data and Reports." Environmental Protection Agency. 2012. Web.

that data may be misreported.

South Carolina did not participate in the EPA's *2012 Clean Watersheds Needs Survey*. Therefore, the number of POTWs and other associated data were not reported.

(F) **– EPA Estimated Long-Term Water and Wastewater Needs** statistics were taken from two separate EPA reports. Water infrastructure needs were sourced from the *2011 Drinking Water Infrastructure Needs Survey and Assessment: Fifth Report to Congress*. State 20-year needs were reported in January 2011 dollars.[518] Wastewater infrastructure needs were sourced from the *2012 Clean Watersheds Needs Survey: Report to Congress*. State 20-year needs were reported in January 2012 dollars.

518. United States Environmental Protection Agency. "Drinking Water Infrastructure Needs Survey and Assessment: Fifth Report to Congress." 2013. Web.