

THE ACCESSIBILITY TRAP

MARYLAND'S
INVISIBLE
WATER CRISIS



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Disclaimers

This report does not constitute solicitation or provision of legal advice. All information is up-to-date as of *December 2018*.

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The Center for Water Security and Cooperation engages in research in five key thematic areas. This report is designed to achieve the mission of these thematic areas by focusing on:



ADVANCING WATER SECURITY



ACTUALIZING THE RIGHT TO WATER



MAKING LAW ACCESSIBLE

For information on DRINC and our other programs, please visit www.ourwatersecurity.org

UNDERSTANDING THE ACCESSIBILITY TRAP: A NATIONAL CONCERN AT THE LOCAL LEVEL

The United States is on the brink of a water infrastructure and affordability crisis. Water infrastructure is in desperate need of costly maintenance and rehabilitation. Artificially low rates and diverted dollars have siphoned off the funds needed to maintain the safety, reliability, and long-term operation of our water infrastructure. At the same time, there are a substantial number of households that cannot afford to pay their water and sewer bills. Those households that cannot pay face water shutoffs and mounting fees. Once water is shut off and fees have been levied, there is often no safety net: households must either come up with the money or live without water.

The Accessibility Trap

Water is both a service and a necessity. Water's duality creates a series of almost paradoxical questions that governments, utilities and households have to answer:

- What is the responsibility of the government or the utility when providing something that is both a fundamental need and a service that demands resources?
- How does the law govern the complicated provision of something that is both a service and a necessity?

The reality is that providing water is expensive, and these costs should be borne by customers. Providing access to water requires money. For utilities, this service model demands that free riders—understood as both those who cannot pay and those who choose not to pay—be punished, either by losing access to the service or through penalties for late or non-payment. For lower-income families these costs and penalties can create an accessibility trap. Failure to pay a bill one month can lead to heavy penalties and water shut offs, eventually denying these households access to water.

For low-income households, this is the accessibility trap: an inability to pay a water or sewer bill leads to financial penalties, which leads to more money owed than originally owed, which, if unpaid, leads to shutoffs and more fees, and potentially a lien and ultimate foreclosure. In the end, low-income households may never be able to fully extricate themselves from the costs of

a missed water bill, placing them in perpetual danger of losing their access to water. Without rate assistance programs, low-income families will continue to fall into the accessibility trap, having access to water one month, only to lose it the next.

But utilities face a similar trap. With aging infrastructure, rising treatment costs, and growing service areas, the cost of providing water is on an interminable rise. To remain solvent, utilities must cover these costs with rising rates. As rates rise, more people cannot pay or choose not to pay, leaving the utility with a less consistent revenue stream to ensure clean water remains flowing. Shutting off water is a last resort, a final step that the utility takes. But for utilities it is a necessary step, because in order to keep water flowing and accessible, they must have the money to run pumps, treat water, and fix pipes. This places utilities in an accessibility trap, as well. They must keep water accessible, but they can only do so by staying fully funded, requiring raising rates and penalties for those who do not pay. In other words, to keep water accessible to most, utilities must make water unaffordable and inaccessible to some.

The Affordability Tension

There is a tension between the need for water and wastewater, and the cost of providing those services affordably. Maintenance and service provision costs are necessary and must be shared by all. While these rising costs ensure the reliability and safety of water access, they inevitably add greater financial stress to low-income households. This creates an unavoidable tension between the needs of the system and the needs of the customers.

This tension is created by five realities: (1) It costs a lot to provide public water and sewer services in the United States; (2) everyone who receives these water and sewer services should pay, but not everyone can; (3) Low-Income Rate Assistance (LIRA) Programs are uncommon in the water sector; (4) we lack data and transparency on the laws governing water accessibility and affordability, perpetuating the invisibility

of water accessibility hardships; (5) governance and lawmaking is devolved to the local level, leading to vastly different consequences depending on the locality. These are addressed in greater detail below.

It costs a lot to provide public water and sewer services in the United States.

Constructing, operating, maintaining, rehabilitating, and replacing centralized infrastructure that provides water and sewer services is a perpetually costly endeavor. However, as the conduit that delivers our drinking water and safely carries away and treats our waste, water infrastructure provides essential community services and cannot be ignored. According to the American Society of Civil Engineers (ASCE) an estimated \$1.271 trillion is needed to meet current and future drinking water and wastewater demands over the next 25 years. If these investments are fully realized, it could triple current household bills.¹

Forgoing these investments not only risks the health and safety of millions of people, but also adversely affects the national economy. Unreliable water services can result in diminished business productivity, decreased Gross Domestic Product, increased job losses, and ultimately, reduced household incomes.² The ASCE estimates that current shortfalls in funding will cause the U.S. to lose nearly 500,000 jobs and \$508 billion in GDP by 2025. Continued underinvestment in water infrastructure could ultimately cost the U.S. more.

Underfunded infrastructure already results in water losses and energy inefficiencies, the exposure of citizens to life-threatening infections and chronic health issues, and the provision of unreliable and unsafe services. These impacts will continue to grow if left unaddressed. The ASCE has warned that U.S. water infrastructure is aging and failing. In their 2017 U.S. Infrastructure Report Card, the ASCE rated the quality of drinking water and wastewater infrastructure as a D and D+, respectively.³ Failures and inefficiencies in these systems are already increasing the overall cost of water services and eroding consumer trust and confidence in water utilities, a situation that will only worsen over time. Unless we repair and replace our water infrastructure, the problems and costs will only grow.

Our need for water and wastewater services is not going to vanish, and the challenges facing water infrastructure, water supply, and wastewater treatment are only growing. Decreasing water sales, growing populations, fluctuating ratepayer bases, increasing urbanization, a changing climate, and the identification of new con-

taminants pose new challenges to the operation of our infrastructure. With these new challenges, the costs of inaction will far outweigh the costs of taking immediate and appropriate action.

Everyone should pay; not everyone can.

Water and sewer services are, importantly, *services*. Ultimately, municipal or county residents—the customers of the utility—receive a service when they pay for and receive safe-to-drink water in their homes and are able to drain or flush away dirty water to be treated by someone else. Providing water and wastewater services demands capital, resources, capacity, infrastructure, and governance to be effectively and safely provided.

Customer revenue is necessary for water and wastewater utilities to continue providing their services. Public utilities also depend on Federal and state funding to finance maintenance and rehabilitation projects. However, with declining government funding in the last twenty years, these increased costs have been shifted even more to the customer.⁴ Unfortunately, not every customer can afford the rate increases needed to cover these costs.

Customers receiving these services should expect to pay a fair price for these services that generates enough revenue to keep the system working properly. Adequate funding collected from customers is necessary to guarantee the continued provision of safe, clean, reliable water to customers. However, despite the fact that customers *should* pay to receive these services—like they pay for housing, heating, electricity, food, phone and Internet—the reality is that not everyone *can* afford them.

Nationwide, the cost of clean water services has consistently risen faster than personal income. Between 2008 and 2014, residential rates for water and wastewater increased by 41 percent and 37 percent, respectively⁵ and from 2002 to 2016, the annual service charge for clean water services doubled from \$239 to \$479.⁶ By comparison, this outpaced the Consumer Price Index, which increased by 33 percent during the same period.⁷ While this trend of rising water rates affects all customers, low-income individuals are disproportionately impacted. The Bureau of Labor Statistics indicates that the poorest fifth of the population commits 40 percent more of their total expenditures to water compared to the wealthiest fifth.⁸ Water and wastewater services are more than discretionary services. These services fulfill basic needs.

In an ideal world, this common need would lead to

equal rates for water services. However, every household is different, and the capacity to pay can differ household to household, month to month. As a result, equal rates do not have equal impacts. When all residents are treated the same, the burden of maintaining our water and wastewater infrastructure falls disproportionately on our lowest income residents. Our laws must recognize the difference between those who are *unwilling* to pay and those who are *unable* to pay.

Low-Income Rate Assistance Programs are uncommon in the water sector.

LIRA programs or Customer Assistance Programs (CAPs) assist customers who are unable to pay their bill in part or in full. LIRA programs acknowledge both the real expense of infrastructure operation and maintenance and the limitations on many households and create a system where these balance each other. There are different ways to create these assistance programs, including through external, government funding and through internal, utility funding. Either way, these programs protect the people and the utility.

While there are a variety of assistance programs available for other essential human services at the national, state, and local levels—such as the Supplemental Nutrition Assistance Program (SNAP), and the Low-Income Home Energy Assistance Program (LIHEAP)—there is no national assistance program for water services and few programs at the state and local levels. Some states, such as California and Michigan, have laws that inhibit the development of LIRA programs.⁹ The shortage of LIRA programs in the water sector increases the likelihood that low-income households will fall into the accessibility trap and experience recurring periods without access to water.

We lack data and transparency on the laws governing water accessibility and affordability, perpetuating the invisibility of water accessibility hardships in the U.S.

We lack critical data on the influence of law on access to water services, which hides the magnitude of the accessibility trap. The law plays a significant role in determining whether and how low-income households are able to maintain access to water services and avoid the accessibility trap. In most states, *local*-level laws primarily govern the accessibility and affordability of water and wastewater services, making the question of how law influences access to water much more challenging to answer. To date, there has been no local-level study and analysis of the laws governing access to water services nor on the number of households that face the accessibility trap each billing cycle. This report is the

first to illustrate how the state-, county- and local-level laws can either deepen or alleviate the accessibility trap.

The law exacerbates the invisible crisis by failing to include reporting requirements. Without reporting requirements, there is a limited understanding of how many households face the accessibility trap each billing cycle and lose access to water. We know even less about whether their lack of access extends to multiple weeks, months, or years or how they meet their water needs during the shutoff period.

Without data we cannot understand the depth or breadth of the accessibility trap across the U.S. We are also unable to develop responsive solutions. More data and information improve transparency; this transparency in turn can drive innovation and civic engagement. With more data and information, we can identify the communities threatened by the accessibility trap and identify opportunities where the law can bring relief to both households and service providers.

Governance and lawmaking are devolved to the local level.

With over 151,000¹⁰ public water systems in the U.S., there are potentially over 151,000 different ways of governing water accessibility in the United States; as a point of comparison, there are only 3,300 electricity providers in the United States. With so many service providers and jurisdictions with authority to write laws governing the provision of water and sewer services, it can create very different realities for neighboring customers. With so many actors, it is much more challenging to understand what role the law plays in enabling access to water across the United States. The charters and codes for thousands of municipalities and counties will have to be examined in order to understand the rules governing water accessibility across the fifty states.

Because water is often governed locally, rapid, widespread change is more difficult, unless states are willing to adopt a statewide approach. Without a statewide approach, each county and municipality must individually adopt a new policy, a Herculean task. Once data and information on the laws governing access to water become more available, local stakeholders from across the fifty states can compare and contrast experiences and generate solutions together, capitalizing on their collective expertise.

In December 2017, The Center for Water Security and Cooperation launched the Delivering Resources through Infrastructure to the Neediest Citizens

(DRINC) initiative. The purpose of DRINC is to understand the unmeasured role that law plays in generating or endangering greater access to safe, reliable water and wastewater services. The DRINC initiative examines affordability as an issue of access. Examining affordability through the lens of access allows us to understand how law can both endanger and facilitate households' ability to maintain (or more easily regain) access to water. The initiative also exposes those policies that indirectly frustrate both affordability and/or the long-term sustainable operation of water infrastructure.

Our methodology examines a wide range of laws, from those governing water shutoffs and the terms and financial consequences of shutoffs to those dictating where and how water revenues can be spent. By focusing on access, we will collect a broader range of data, allowing for the development of more impactful recommendations.

Our report on Maryland is the first in a series of

reports, papers, and workshops that will explore the role, impact, and influence of law, as written and as practiced, on the accessibility and affordability of water and sewer services. Through these reports The Center for Water Security and Cooperation will collect and analyze data on the laws determining the affordability and pricing of water and sewer services. Our goal is to improve the availability of data and information on the state of accessibility, affordability and investment in water infrastructure, to increase transparency and accountability, to lead evidence-based international dialogues on water accessibility, and to offer responsive recommendations that address the challenges we uncover.

In order to fully understand the effect that law has on deepening or relieving the accessibility trap, this report will look at the county and municipal systems that govern water and wastewater services in Maryland. From this invisible crisis, we seek to create palpable change.

A LEGAL PRIMER: MARYLAND STATE AND COUNTY AUTHORITY OVER WATER

In order to understand the complex background underlying the legal frameworks in Maryland, this section provides an overview of local governance generally in the State of Maryland and the entities responsible for overseeing and providing water and sewer services.

Residents of Maryland receive water and sewer services from: public utilities at the municipal- and county-levels; private companies overseen by the Public Utilities Commission (PUC); or private wells and septic tanks. Federal and state laws set forth the standards governing drinking water and discharges from wastewater treatment plants while county and municipal laws focus on establishing the scope of authority for utilities and the rules governing those utilities to ensure responsible management.

Overview of local governance

Local government in Maryland is organized into counties and municipalities. There are 23 counties and 156 incorporated municipalities in Maryland.¹¹ Incorporated municipalities are towns, cities, and villages that have been granted the ability to self-govern. Municipalities and counties can adopt one of three structures of local government: commission, charter home rule, or code home rule. Typically, incorporated municipalities adopt either a charter or a code that sets out their authority and provides their municipal rules. This charter or code must comport with the authority granted by state law. Unincorporated municipalities—such as Bethesda and Silver Spring—are governed by the county and the state.

All counties historically had commission forms of government. Today, only six counties—Calvert, Carroll, Garret, St. Mary’s, Somerset, and Washington—remain governed by a commission form of government.¹² The General Assembly has full power and authority to legislate for **commission counties**. Article VII of the Maryland Constitution sets forth rules for electing county commissioners in counties not governed by Article XI-A of the Maryland Constitution (i.e. non-charter or code counties).¹³ Subtitles 1 and 4 of Title 9 of the Maryland Local Government Code identify additional rules governing commissioners as well as certain county powers granted to commission counties.¹⁴ Any other authorities held by the Board of Commissioners in commission counties are granted explicitly by

the Maryland General Assembly through public local laws. The County Board of Commissioners also has the authority to pass ordinances and resolutions that apply within the county, typically called the Code of Ordinances.

Types of county governments

Counties can also adopt home rule authority whereby the state transfers some legislative authorities to the county government. There are two types of county governments formed under home rule: charter and code. Anne Arundel, Baltimore, Cecil, Charles, Dorchester, Frederick, Harford, Howard, Montgomery, Prince George’s, Talbots and Wicomico counties have adopted home-rule charters.¹⁵ The remaining counties operate under code home rule.

Charter and code counties are granted differing degrees of legislative independence from the Maryland General Assembly. Article XI-A of the Maryland Constitution lays out the procedure by which counties can adopt charters.¹⁶ Under Article XI-A §2 of the Constitution, the General Assembly is required to provide a grant of express powers to all counties that adopt charter home rule.¹⁷ Once the **charter county** has adopted a charter, the county has the full authority to amend or enact local laws on those matters set forth in the Express Powers Act, which includes the power to amend local laws previously enacted by the General Assembly.¹⁸ The full authority for each charter county is derived from its county charter, Subtitles 2 and 3 of Title 10 of the Maryland Local Government Code (i.e. the express powers),¹⁹ and public local laws adopted by the General Assembly.²⁰ The General Assembly cannot pass a public local law that governs only one charter county on any subject set forth in the express powers.²¹ However, the General Assembly can pass a law on a subject identified in the express powers, if the law governs two or more counties or the City of Baltimore.²² Charter counties are governed by a County Council, elected by residents of the county. The County Council can adopt laws (or ordinances) compiled into a Code of Ordinances. The County Executive also has limited authority to adopt directives.

The laws governing **code counties** formed under Article XI-F of the Maryland Constitution, including Allegany, Caroline, Kent, Queen Anne’s and Worcester

counties, include those express powers set forth in Subtitle 3 of Title 10 of the Maryland Local Government Code,²³ public general laws enacted by the General Assembly that govern all code counties or one or more classes of code counties,²⁴ and the code county's public local laws adopted by the county commissioners. This means that code counties have almost exclusive power to amend or enact public local laws.²⁵ Code counties do not adopt charters. Additional authorities of code counties are set forth in Title 11 of the Maryland Local Government Code. Code counties are governed by elected Commissioners who together form a corporation.²⁶ The Maryland Local Government Code also identifies additional powers of all counties in Titles 12 and 13 of the Local Government Code.²⁷ The Maryland counties according to their type of government is illustrated in the figure below.²⁸

MARYLAND COUNTIES ACCORDING TO TYPE OF LOCAL GOVERNANCE.		
Commission	Charter	Code
Calvert	Anne Arundel (1964)	Allegany (1974)
Carroll	Baltimore County ²⁹ (1956)	Caroline (1984)
Garrett	Cecil (2012)	Kent (1970)
St. Mary's	Charles (2012)	Queen Anne's (1990)
Somerset	Dorchester (2002)	Worcester (1976)
Washington	Frederick (2014) ³⁰	
	Harford (1972)	
	Howard (1968)	
	Montgomery (1948)	
	Prince George's (1970)	
	Talbot (1973)	
	Wicomico (1964)	

Municipalities also have the authority to adopt charters and/or codes.³¹ Title 5 of Division II of the Local Government Act sets out municipalities' powers generally as well as enumerates express powers.³² Municipalities may exercise these authorities by adopting ordinances, as long as they do not conflict with State law.³³ Counties determine whether or not municipalities' requests for incorporation are submitted to the population for referendum.³⁴

Overview of water and sewer governance and service delivery

State involvement in water and wastewater service provision

The State of Maryland plays an essential role in overseeing the quality of the provision of water and sewer services, but a very limited role in the actual provision of water and wastewater services. The Maryland Department of the Environment, specifically the Water and Science Administration is responsible for ensuring public water systems' compliance with the national

drinking water standards as required by the Safe Drinking Water Act (SDWA, 1986), for issuing National Pollutant Discharge Elimination System (NPDES) permits to wastewater treatment plants, and for monitoring compliance with water quality standards as set forth in Total Maximum Daily Loads (TMDLs) as required under the Clean Water Act (CWA, 1972) and in compliance with all state implementing statutes.³⁵ Maryland's Environmental Code also requires each county to adopt a 10-year Master Water and Sewer Plan covering water supply systems, sewerage systems, and solid waste disposal and acceptance facilities within the county.³⁶ Plans must be approved by the State Departments of Planning and Environment and be reviewed at least every three years by the County.³⁷ While Federal and state law govern certain aspects of the operation of drinking water and wastewater treatment facilities, the state's role in regulating water and wastewater access and affordability and water and wastewater rate setting is limited and primarily devolved to the counties and municipalities.

State law does set one standard with respect to rate-setting. The Maryland Environment Code authorizes any county or municipality in Maryland to charge "reasonable rates" for water and sewer services. The Code identifies the purposes for which rates and charges can be assessed, but does not clarify the concept of reasonable:

Subject to any charter provisions of a chartered county or municipal corporation, any political subdivision may establish reasonable rates for water service, and reasonable charges for sewer upkeep and sewer service to provide funds for: (1) Maintenance, repair, and operation of any water or sewerage system; and (2) Payment of all or part of the principal and interest on any indebtedness that is incurred to finance any water or sewerage system.³⁸

The statute authorizes local governments to recover the costs of providing these services, through the levying of "reasonable" rates. But by not defining "reasonable", the statute leaves customers and utilities without clear guidance or protections.

In the past five years, the Maryland General Assembly has passed two laws related to customer assistance programs. State law originally prohibited the Washington Suburban Sanitary Commission (WSSC) from using ratepayer dollars to fund a CAP program.³⁹ In 2015, the General Assembly adopted House Bill (H.B.) 1234. H.B. 1234 required the WSSC to establish a CAP program and allowed the CAP program to be funded with revenues from the WSSC's operations.⁴⁰

Three years later, on April 24, 2018, the Maryland General Assembly enacted H.B. 923, to ensure “homeowners have access to programs to assist them in meeting their payment obligations for water and sewer services.”⁴¹ Section 9-202 of Maryland’s Environmental Code now authorizes political subdivisions, sanitary commissions or any authority providing water and sewer services under Title 9 of the Environmental Code to develop and implement service affordability programs to assist homeowners struggling to pay for water and sewer services.⁴² These service affordability programs include payment plans and “round up programs in which ratepayers may donate to a fund to be used to provide payment assistance to homeowners.”⁴³ The need for this law, including whether such actions were unlawful under prior law, is unclear.

County and municipal involvement in water and wastewater service provision

In Maryland, public water and sewer services are provided by the counties, municipalities, the Washington Suburban Sanitary Commission (WSSC), or the Metropolitan District. According to the United States Census Bureau, there are 3,527 public water systems in the State of Maryland, serving a total population of 5,523,000.⁴⁴ This accounts for approximately 96% of the total State’s population, with an approximate 250,552 (or 4 percent of the total population) on private well and septic systems.⁴⁵

Maryland Public Service Commission

The Maryland Public Service Commission (MPSC) was founded in 1910 and regulates privately-owned public service companies operating in Maryland, including gas, electric, telephone, railroad, taxicab, water, and sewage disposal companies.⁴⁶ The MPSC is responsible for overseeing the infrastructure, rates, management, and billing for the 22 water companies within its jurisdiction.⁴⁷ Eleven thousand residential customers across the state of Maryland receive services from private water companies regulated by the MPSC.⁴⁸ Public service companies are required to charge “just and reasonable rates.”⁴⁹ A rate will be considered “just and reasonable” if the rate “fully considers and is consistent with the public good” and “will result in an operating income to the public service company that yields, after reasonable deduction for depreciation and other necessary and proper expenses and reserves, a reasonable return on the fair value of the public service company’s property used and useful in providing service to the public.”⁵⁰

Water and Sewer Authorities, Districts governed by Sanitary Commissions, and Departments of Public Facilities and Services

Under Title 9, Subtitle 9, 1 or more political subdivisions can form a water or sewer authority.⁵¹ An authority is a “body politic and corporate” created under Subtitle 9 and is governed by a Board.⁵² Each incorporating political division is required to include in the law that establishes the water or sewer authority the articles of incorporation for the authority.⁵³ The Board, amongst other powers, can “adopt bylaws to regulate the affairs of the authority.”⁵⁴ Any authority is deemed to have a lien on real property when a fee, rent or charge or any accrued interest remains unpaid after the due date.⁵⁵ Furthermore, when an owner or tenant of a premises located in a political subdivision fails to pay any rate or fee charged by the political subdivision for sewerage services, the authority may terminate water services to the premises.⁵⁶ According to Section 9-903 Title 9, Subtitle 9 does not apply to Montgomery or Prince George’s Counties.

Under Title 9, Subtitle 6, the governing body of one or more counties may create a district by ordinance or resolution.⁵⁷ Districts are governed by sanitary commissions which have the authority to adopt rules and regulations to carry out the provisions of Subtitle 6.⁵⁸ Subtitle 6 does not apply to the following counties: Anne Arundel, Carroll, Harford, Montgomery, Prince George’s, St. Mary’s, and Wicomico.⁵⁹ Districts have a broad range of authorities related to “projects”—water and sewerage systems that the District owns, constructs or operates—including acquiring, maintaining, improving, operating, owning, reconstructing and repairing projects.⁶⁰

Maryland’s Local Government Code has also granted code counties the authority to establish a Department of Public Facilities and Services.⁶¹ County commissioners may assign to the Department the responsibility for constructing, maintaining, repairing, servicing or managing “(i) public works, public buildings, publicly owned water and sewerage facilities and projects, and capital projects; (ii) water supply facilities and projects; [and] (iii) wastewater collection, treatment, and disposal facilities and projects,” amongst others.⁶² If the county commissioners do assign water and sewerage responsibilities to a Department, the county must abolish, by public law, any water or sewer authority established for the county under Title 9, Subtitle 9 or any sanitary district or commission established for the county under Title 9, Subtitle 6.⁶³ Additionally, if the county commissioners dissolve a water or sewer authority or a sanitary district or commission, the county commissioners are required to exercise the

powers of the previous institution, including adopting regulations for water and sewerage management, constructing, operating and maintaining water or sewerage systems, and setting rates and fees for water and sewerage services.⁶⁴

The Washington Suburban Sanitary Commission (WSSC)

The Washington Suburban Sanitary Commission was created in 1918 to oversee the Sanitary District.⁶⁵ Today, WSSC water and sewer service coverage extends across almost the entire acreage of Montgomery and Prince George's counties with the exception of Bowie and Rockville which do not receive water services from the WSSC.⁶⁶ The Maryland Public Utilities Code sets forth mandatory guidelines for establishing service rates for water including that the service rate should consist of a ready to serve charge and a charge for the water used by the customer.⁶⁷ The Commission is authorized to identify areas within the district - to be identified as subdistricts - where conditions for providing service are substantially different than the circumstances in other areas and necessitate the adoption of a different regulation, rate or charge.⁶⁸ Municipalities are forbidden from amending their charter in such a way that would affect the power of the WSSC.⁶⁹

Metropolitan District

In 1924, the General Assembly adopted The Metropolitan District Act creating the Baltimore County Metropolitan Sewer and Water Operating District (also known as the Metropolitan District).⁷⁰ The Metropolitan District is run by the Departments of Public Works of Baltimore City and Baltimore County.⁷¹ Under the Metropolitan District Act, Baltimore City provides water services to Baltimore County.⁷² Under Sec. 20-1-113 Baltimore City must provide water services:

[I]n as efficient a manner as the remainder of the water system owned and operated by the City of Baltimore so that there shall be at all times an adequate flow of water fit for human consumption, none the less pure than the water furnished by the Mayor and City Council of Baltimore to the inhabitants of Baltimore City, and sufficient to supply to the inhabitants of the county water for all public, private, domestic, manufacturing, or other needs which the water mains were designed or intended to supply.⁷³

In fact, the Baltimore County Department of Public works is authorized to restrict the use of water to customers of Baltimore City in order to "protect the viability of the system."⁷⁴

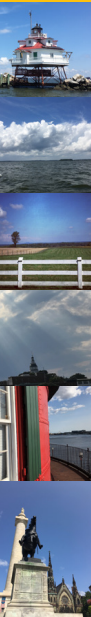
Baltimore City is responsible for billing, collecting water rates, and for providing water services at cost. Baltimore City is required to serve Baltimore County "entirely without profit or loss."⁷⁵ The rates charged by Baltimore City are determined and agreed to by both the City and County and are subject to approval by the Public Service Commission.⁷⁶ The County is also authorized to charge each building connected to the water system a water distribution charge which is deposited into the construction fund.⁷⁷ The fund supporting the operation of the Metropolitan District must be funded through its operation and cannot receive funding from the county general fund.⁷⁸

Private wells and septic tanks

Those Maryland residents who do not receive services from the counties or municipalities, WSSC, or private companies receive water from private wells and sanitation via septic tanks.

WHY WE CHOSE *Maryland*

Maryland provides an exceptionally rich case study for this first report. First, Maryland is demographically diverse, with a higher rate of racial diversity and a median household income greater than the national average.⁷⁹ Maryland also has a robust "home rule" governance system that allows municipalities and counties greater autonomy in governing water and sewer provision. Additionally, Maryland has one of the lowest percentages of persons living below 200% of the Federal Poverty Line at 19%. Because of these lower poverty rates, Maryland is well-positioned to be a testing ground for statewide water affordability programs.⁸⁰



PROVIDERS AND OVERSEEING AUTHORITIES OF WATER AND SEWER SERVICES IN MARYLAND COUNTIES AND POPULATIONS SERVED

County	Primary Provider	Overseeing Authority	Population Served ⁸¹
Allegany	Allegany County Department of Public Works - Utilities Division ⁸²	County Commissioners	Nearly 15,000 residential and commercial users ⁸³
Anne Arundel	Bureau of Utility Operations ⁸⁴	Department of Public Works ⁸⁵	Water: "More than 114,000 customers" ⁸⁶ Sewer: "118,154 customers" ⁸⁷
Baltimore County	Department of Public Works for Baltimore City is responsible for water services ⁸⁸ Bureau of Utilities, Department of Public Works for Baltimore County is responsible for sewer operation within the county ⁸⁹	Public Service Commission ⁹⁰	
Calvert	Water and Sewerage Division ⁹¹	County Commissioners ⁹²	Approximately 5,000 customers ⁹³
Caroline	Jonestown Water System ⁹⁴	County Commissioners ⁹⁵	
Carroll	Bureau of Utilities ⁹⁶	Department of Public Works ⁹⁷	
Cecil	Wastewater Division ⁹⁸ (Cecil county does not provide water services) ⁹⁹	Department of Public Works ¹⁰⁰	
Charles	Utilities Division ¹⁰¹	Department of Public Works ¹⁰²	
Dorchester	Dorchester County Sanitary District, Inc. ¹⁰³	Dorchester County Sanitary Commission ¹⁰⁴	
Frederick	Division of Utilities and Solid Waste Management ¹⁰⁵	County Executive ¹⁰⁶	21,926 Accounts or an estimated 59,961 people ¹⁰⁷
Garrett	Public Utilities Division, Department of Public Works ¹⁰⁸	Board of County Commissioners ¹⁰⁹	
Harford	Division of Water and Sewer ¹¹⁰	Department of Public Works ¹¹¹	"Over 130,000 citizens" ¹¹²
Howard	Bureau of Utilities ¹¹³	Department of Public Works ¹¹⁴	"More than 85% of the County's population" ¹¹⁵
Kent	Water and Wastewater Services, Department of Public Works ¹¹⁶	County Commissioners ¹¹⁷	
Montgomery ¹¹⁸	WSSC	WSSC	1.8 million residents or 475,000 customer accounts ¹¹⁹
Prince George's ¹²⁰	WSSC	WSSC	1.8 million residents or 475,000 customer accounts ¹²¹
Queen Anne's	Queen Anne's County Sanitary District ¹²² , Department of Public Works ¹²³	County Commissioners ¹²⁴	5,600 sewer and 3,000 water accounts ¹²⁵
St. Mary's	St. Mary's County Metropolitan Commission (METCOM) ¹²⁶	Board of Commissioners of the Metropolitan Commission ¹²⁷	
Somerset	Somerset County Sanitary District ¹²⁸	Board of County Commissioners ¹²⁹	
Talbot	County Engineer, Department of Public Works ¹³⁰	Public Works Advisory Board ¹³¹ & County Council ¹³²	
Washington	Division of Environmental Management, Department of Water Quality ¹³³	County Commissioners ¹³⁴	
Wicomico	N/A	N/A	No water or sewer services provided at the County level ¹³⁵
Worcester	Water and Wastewater Division, Department of Public Works ¹³⁶	County Commissioners ¹³⁷ & Water and Sewer Advisory Board (advises County Commissioners) ¹³⁸	

OUR METHODOLOGY

This report examines the impact of law as written on the affordability and pricing of water and sewer services.¹³⁹ To understand the relationship of law to affordability and pricing, we sought to answer one crucial question: Does the law influence access to water and sewer services based on the ability to pay?

To answer this question, we identified six categories of information to collect from laws:

- (1) legal authority to shut off water for nonpayment of services as well as the circumstances and conditions of shutoffs;
- (2) financial repercussions of late payments or non-payment;
- (3) financial costs associated with being connected to or being required to connect to public water systems;
- (4) the availability, reach and conditions of participation of low-income rate assistance programs;
- (5) how costs recovered through rates can be spent as well as how water rates are structured and the costs/expenses they reflect, and;
- (6) data monitoring and reporting requirements.

Within each of these categories we identified several specific indicators to answer the research question raised, included in the Research Indicators figure on the following page. With respect to CAP programs, we examined whether assistance programs cover any costs that could be charged or fees that could be assessed for receiving water services. We took this broad approach because failure to pay any of these costs could result in shutoff.

In December 2017, The Center for Water Security and Cooperation published a draft report for the review and comment by state and local stakeholders. In the Appendix to the draft report we included a Legal Profile for each municipality and county. The Legal Profile included the raw data we had collected from the municipal or county charter, code, or website. **By looking at publicly available resources, we essentially had the same research limitations as a customer or citizen looking for information from a utility.**

In addition to the draft report and the legal profiles we designed a survey to gather additional data on the practices of municipalities and utilities that could not be found in publicly available information.

The draft report and the survey were sent via email to officials of each county and municipality. In the email, we encouraged the recipient to review the legal profile for their county or municipality to ensure that the profile reflected the most accurate information. We also asked that they complete the survey as part of our effort to heighten transparency on water affordability and to engage local governments and utilities across Maryland in a fact-based dialogue about the state of affordability. The Center for Water Security and Cooperation followed up the first email with two calls to each recipient and five additional emails. Twelve municipalities, one county, and the WSSC—a total of thirteen out of 181 entities—responded to the survey via email or a phone call. Those thirteen municipalities and the WSSC represent approximately seven percent of all incorporated municipalities and counties with authority over the provision of water and sewer services. Unfortunately, these limited survey responses did not allow us to draw statistically significant conclusions; therefore, these survey results have not been included in this report. Any corrections made to the legal profiles have been included in the updated legal profiles. We will continue to seek this information in future research on water affordability in Maryland.

Our goal with this research and the overall DRINC initiative is to make more data and information available. The affordability and pricing of water and sewer services are under-researched. This is especially true of the laws that shape the decision-making of the local governments and the utilities that ultimately impact customers.

Data and information are essential to sound decision-making, lasting solutions, and results. Without complete data, local governments and utilities cannot accurately identify challenges and develop responsive solutions. This report is the first investigation into what the law and the utilities actually say about affordability and service pricing. We hope that the publication of this report will encourage counties and municipalities to engage with us and increase the transparency of accessibility, affordability, and service pricing.

RESEARCH INDICATORS

Legal authority and circumstances of water shut offs	Whether shutoffs are allowed for nonpayment of water and sewer bills
	Whether shutoffs are allowed in other circumstances (e.g. "water wastage")
	Number of days between nonpayment and shutoff
	Whether notice of shutoff is required and the notification process
	Whether the property owner (or tenant) is responsible for nonpayment
	Length of billing cycle
Financial repercussions of nonpayment and reconnection	Whether a disconnection fee is charged
	Amount of disconnection fee
	Whether a late charge is assessed for delinquency
	Amount of late charge
	Number of days between nonpayment and assessment of late charge
	Whether interest is charged on unpaid bills and fees
	Interest rate on unpaid bills and fees
	Number of days between nonpayment and interest accrual
	Whether a reconnection fee is charged
	Amount of reconnection fee
	Terms of reconnection
	Whether or not unpaid bills can become a lien
Whether or not a foreclosure can be executed on the lien	
Financial costs associated with being connected to or having to connect to public water systems	Whether a property owner is required to connect to public water/sewer when the connection is made available
	Fees associated with first-time connection
	Whether special assessments can be levied
	Whether the cost of special assessments is capped
	Whether there is a predetermined payment period for special assessments
	Whether property owners or renters are responsible for water and sewer pipe maintenance at their own expense
Availability and scope of low-income rate assistance programs	Whether property owners or renters are responsible for preventing "water wastage" at their own expense
	Whether payment plans are available
	Whether fees and charges assessed for nonpayment can be forgiven
	Whether rate assistance programs are available
	Eligibility requirements for LIRA programs
How revenues from water rates can be spent and how rate structures are structured	Amount and type of assistance provided by LIRA program
	Whether revenue from water rates is ring-fenced for water service provision
	Whether revenue from water rates is transferred into a general city fund
	Type of rate structure
Data Monitoring and Reporting Requirements	Whether revenue from water rates be used for capital investment projects
	Whether the municipality collects and records data on water and wastewater revenue from ratepayers
	Whether the municipality collects and records data on late payments or non-payments for water services
	Whether the municipality collects and records data on water and wastewater shut offs each billing cycle
	Whether the municipality collects and records data on water and wastewater liens and properties sold at tax sale
Whether the municipality is required to make this information publicly available	

KEY FINDINGS

The law, as written, makes water inaccessible to low-income families. Depending on the municipality you choose to call home, the penalties for failure to pay your water bill can be staggeringly different. While some households are offered flexibility and assistance in paying their bill, others receive service termination notices. While municipalities and counties have almost all set out the penalties for non-payment, few have made provisions to protect those who cannot pay because they live in poverty. This system penalizes lower-income families twice: first, by not providing assistance when bills cannot be paid and then; second, by piling on additional penalties and fees when those bills remain unpaid.

The actual use of these uneven powers is unclear as municipalities and counties are not required to collect data on the number of shutoffs or to consider poverty prior to shut off. This means that in a state where 427,000 people live below the poverty line,¹⁴⁰ there is no assurance that those people will not lose access to water because they are unable to pay.

The law does not provide protection or clarity for these impoverished citizens. While the law specifically provides broad powers to municipalities and counties to shut off water and penalize failure to pay, the law does not mandate protections for those who cannot pay or limit shutoff powers. In this way, the law provides the sword, but not the shield, which creates a critical and deepening imbalance of power between the government and its neediest citizens.

Laws have broad impacts on the affordability and accessibility of water for households in Maryland. Through our research, we identify five main themes in the laws:

First, water affordability and pricing are a function of where you live, and neighboring communities face very different circumstances of water shutoff and different opportunity to access.

Second, the laws are blunt instruments, designed to ensure payments from those *unwilling* to pay their water and sewer bills, but, in practice, they end up harming those who are *unable* to pay.

Third, LIRA programs are found infrequently throughout the state, and even existing programs are inadequate to address the full scope of affordability concerns.

Fourth, revenue received for the payment of water services is not always reinvested in these services, meaning ratepayer monies are diverted to general funds instead of being used to upgrade or maintain infrastructure or to provide LIRA programs.

Fifth, the laws and analysis reveal that there is a lack of data monitoring and reporting requirements, leaving the true impact of water shutoffs unknown, and making the phenomenon of water shutoffs in the United States an invisible crisis.

Your zip code determines the affordability of your water and the circumstances of water shutoffs.

The laws governing water affordability are different municipality-to-municipality and county-to-county across the State of Maryland, resulting in varying degrees of vulnerability to the accessibility trap for low-income households. With the provision of water and sewer services devolved to the municipal- or county-level, each municipality or county has the authority to dictate the circumstances leading to water service shutoffs. This devolution of power leads to life-changing differences in how towns execute water shutoffs, whether they offer low-income rate assistance programs, and how they manage bill payments and recover service costs. Households in similar financial positions can face very different outcomes for nonpayment, solely because of where they live. Some households will face service termination and fines when they are unable to pay. Others will be eligible for low-income rate assistance programs that prevent disconnection.

The preconditions for water shutoffs vary dramatically from municipality-to-municipality and county-to-county.

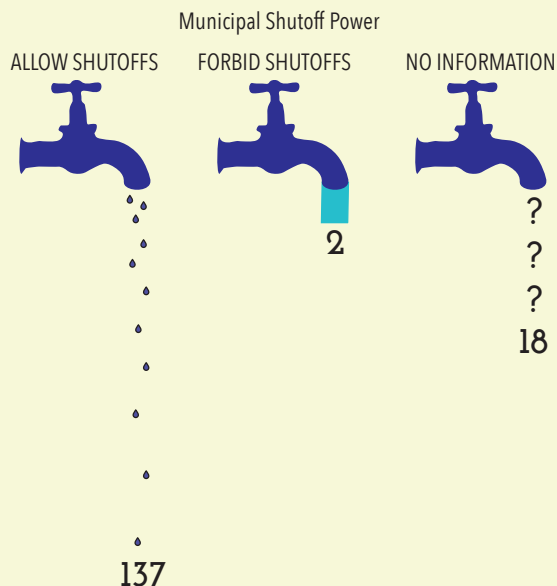
In examining the State of Maryland, significant differences exist across the 157 municipalities and 23 counties in regard to their process for terminating water service, reinstating water service, and offering LIRA programs.

Water service can be terminated under different circumstances in different communities, leading to varying degrees of accessibility of water and sewer services throughout Maryland.

The threat of service termination is a tool commonly used to incentivize customer bill payment. Approximately 87 percent of all municipalities in Maryland (137 municipalities, including those in the WSSC service area) and 78 percent of counties (17 counties, including those in the WSSC service area) authorize water services to be terminated when bills remain unpaid for more than a specified time period. Two municipalities - Bel Air and Oakland - explicitly forbid water and sewer service disconnection in the event of bill nonpayment. Anne Arundel County will not shut

off water if the total amount owed is \$200 or less. The remaining 12 percent of municipalities and 22 percent of counties do not explicitly permit or forbid water shutoffs in their municipal charter or code.

However, while the majority of municipalities allows for water services to be terminated, the preconditions for water shutoffs vary dramatically from municipality-to-municipality and county-to-county. Municipalities differ in the number of notices, if any, sent prior to service termination, the method of notice delivery, and the timeline for sending notices to customers of possible service termination.



Municipalities even differ on the type and frequency of notice that must be sent to households to inform them of the potential shutoff. Seventy-two municipalities, representing 53 percent of those municipalities that allow for water shutoffs, require notices to be sent to customers prior to turning off their water.

The number of notices given varies. One notice is most commonly required, but five municipalities¹⁴¹ require two to be sent, and one¹⁴² requires three to be sent before termination of water services.

The amount of time required for formal notice ranges from as early as ten days after the initial payment is

due to 40 days after the original bill is issued to as late as 24 hours before disconnection is scheduled. Most municipalities require notices to be mailed, but some specify that notices should be posted on the property. Notices are often sent free of charge, except for three municipalities¹⁴³ that assess a fee for sending a termination notice.

Differences in shutoff procedures lead to differing degrees of vulnerabilities to the accessibility trap.

The amount of time before a shutoff also varies substantially. The timeframe for shutoff ranges from 30 days to six months after payment was due.¹⁴⁴

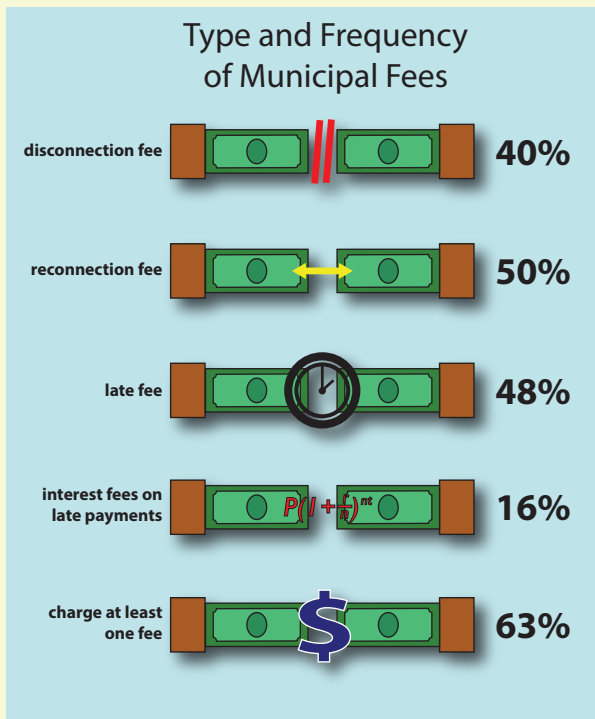
There is less variability in approach at the county-level. Thirteen counties require at least one written notice to be provided to delinquent account holders before services are terminated. The remaining ten counties provide no information on the number of notices required before water is shut off. A unique example at the county level is Calvert County, which sends two notices: the first is a notice of delinquency; the second comes seven to ten days later as a door tag. Other counties' codes do not stipulate when notice must be provided before shut off, but do require the notice to be sent at some point before shut off. Generally, counties do not shut off water sooner than 30 or 60 days after the bill due date, the date the bill is mailed, or the date of the shutoff notice. One county is authorized to shut off water ten days after the bill due date, another is allowed to shut off water five days after the shut off notice is mailed, left, or received, and a third can shut off water 72 hours after notice.

Laws requiring the provision of notices in advance of water shutoffs lead to greater transparency in how utilities terminate water services. Some laws make the process even more transparent, by specifying the type of information that must be included in the notice, such as: the date of the shutoff, fees assessed, and the steps that can be taken to prevent the service from being terminated.¹⁴⁵

These differences in shutoff procedures lead to differing degrees of vulnerabilities to the accessibility trap. While a customer in one town may be fully aware of the time and date of an intended water shut off, another resident could unexpectedly come home to no running water, no warning, and no plan to obtain water elsewhere.

Late fees, reconnection or disconnection charges, and interest on unpaid bills accumulate at different rates based on the municipality or county, leading to unequal financial consequences for non-payment.

Late payments or non-payments may not only result in the termination of services but also in the assessment of numerous fees. There are four fees that are typically charged for late payment or nonpayment: late fees, disconnection fees, reconnection fees, and interest. These fees are assessed at different times. Commonly,



interest begins to accrue once the bill is past due and will continue to accrue until the bill is paid in full. Late fees are assessed when the bill remains unpaid after the payment due date. Disconnection fees are charged at the time the water is shut off. Reconnection fees are charged before water services will be reconnected.

Seventy-two percent of the municipalities and 83 percent of the counties that allow for water services to be shut off for nonpayment charge at least one of these fees, and most assess multiple. The most common financial repercussion for unpaid water bills is a reconnection fee, with 53 percent of municipalities that allow for water service to be terminated assessing a reconnection fee. The same applies to counties, with eleven of the 18 counties with shut off authority also charging reconnection fees ranging from \$35 to \$90.

Municipal and county laws often allow for various combinations of these fees to be added to unpaid bills.

The amount of these fees and interest ranges substantially across Maryland municipalities. Disconnection and reconnection fees range from \$10 to over \$100 and late fees range from as little as \$5 to 10 percent of the bill. Interest can range from 0.5 percent monthly to 10 percent monthly or 10 percent annually, and can begin accruing anywhere from the “day after [the] billing due date”¹⁴⁶ to as long as 60 days after the billing due date.

While very little is known about the scope of the water accessibility trap, there is also no information on the actual costs incurred by utilities as a result of late payments or nonpayments.

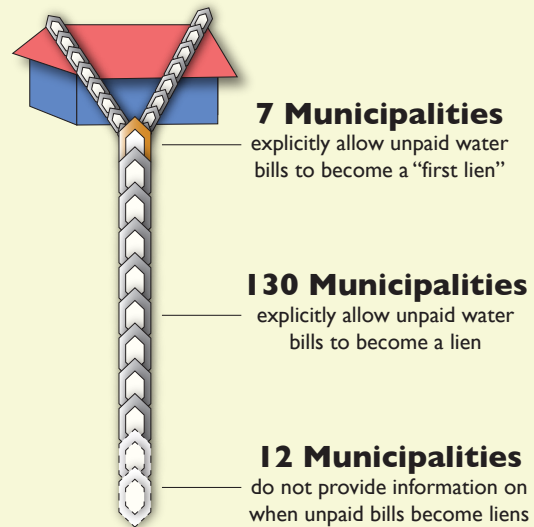
As fees accumulate, it becomes increasingly difficult for vulnerable persons to afford water service, especially when the period between bill delinquency and water shutoff is short. These charges, like water shutoffs, were designed to incentivize on-time customer payment. However, for households that *cannot* pay, these additional fees only act to increase their financial burden, making an already unaffordable bill even more expensive and the accessibility trap larger. Adding additional fees and charges to unpaid bills increases the barrier that low-income households must overcome to regain access to water.

Local law has a profound impact on the ability of a vulnerable customer to maintain consistent, uninterrupted access to water services. Laws give municipalities and counties the authority to terminate water service, to set different fees for nonpayment, to create billing due dates and service termination policies, and to dictate whether notices must be sent to customers prior to disconnection. One of the challenges with devolving lawmaking authority to the local level is that each municipality and county can take a very different approach to water shutoffs, ultimately making water accessibility and affordability a function of where you live.

One way to achieve greater accessibility across the state is to establish statewide rules governing water service shutoffs and the assessment of nonpayment-related fees. By creating a state-level baseline for water accessibility, access to water becomes less determined by a resident’s zip code. Municipalities and counties can also take the first step to bring greater transparen-

cy to water shutoffs by voluntarily publishing data on shutoffs, including how many are executed per month, how much money is collected monthly from each fee assessed, the average duration of a shutoff, and the real costs of water shutoffs and late payments.

While very little is known about the scope of the water accessibility trap, there is also no information on the actual costs incurred by utilities as a result of late pay-



ments or nonpayments. The more data that is made available, the more we can understand unintended or unanticipated impacts of the accessibility trap on both utilities and their customers. With more data--including who experiences shutoffs, how frequently, the average unpaid bill, the average income of households unable to afford their water bill, and the costs of shutoffs and reconnections--we can develop responsive solutions while maintaining the safety and reliability of water services. Until these aspects can be fully understood, municipalities should re-examine whether existing water shutoff practices actually generate payment accountability.

Liens can be placed on homes for an inability to pay water or sewer bills.

The most severe repercussion for unpaid water bills is the placement of a lien on the property receiving the water service. If liens are not repaid within a statutorily-designated period of time, the property can be foreclosed on and sold to recover the debt. Before the foreclosure is finalized, there is a period of redemption during which the original owner can pay the unpaid debt, accrued interest, penalties, and legal fees and reclaim their property.¹⁴⁷

Eighty-seven percent of all municipalities and 70 percent of counties in Maryland allow for unpaid water bills to turn into liens on the property.¹⁴⁸ Of those municipalities, four percent designate water liens placed on a property as a “first lien,” meaning that the water bill-based lien becomes the priority lien and is first to be repaid on the property in the event of foreclosure or sale. No municipality or county explicitly forbids the placement of liens on properties with unpaid water and/or sewer bills. Thirteen percent of municipal codes and charters and 30 percent of county codes and charters are silent on whether unpaid water bills can result in liens.

Some municipalities allow for property owners to sell their homes despite having delinquent water bills. Salisbury, Rockville, and Ocean City permit the sale of homes with unpaid water bills, allowing the debt to be passed onto the next homeowner.¹⁴⁹ In Salisbury and Ocean City these provisions allow water service to be terminated because of the previous owner’s payment delinquency.¹⁵⁰ On the other hand, the towns of Berlin and Elkton forbid the sale of homes unless all unpaid water and sewer bills and liens have been paid.¹⁵¹

According to these laws, debt from unpaid water bills

can be inherited by new homeowners (potentially unbeknownst to them), threatening their future access to water if they are unable to pay off the debt.

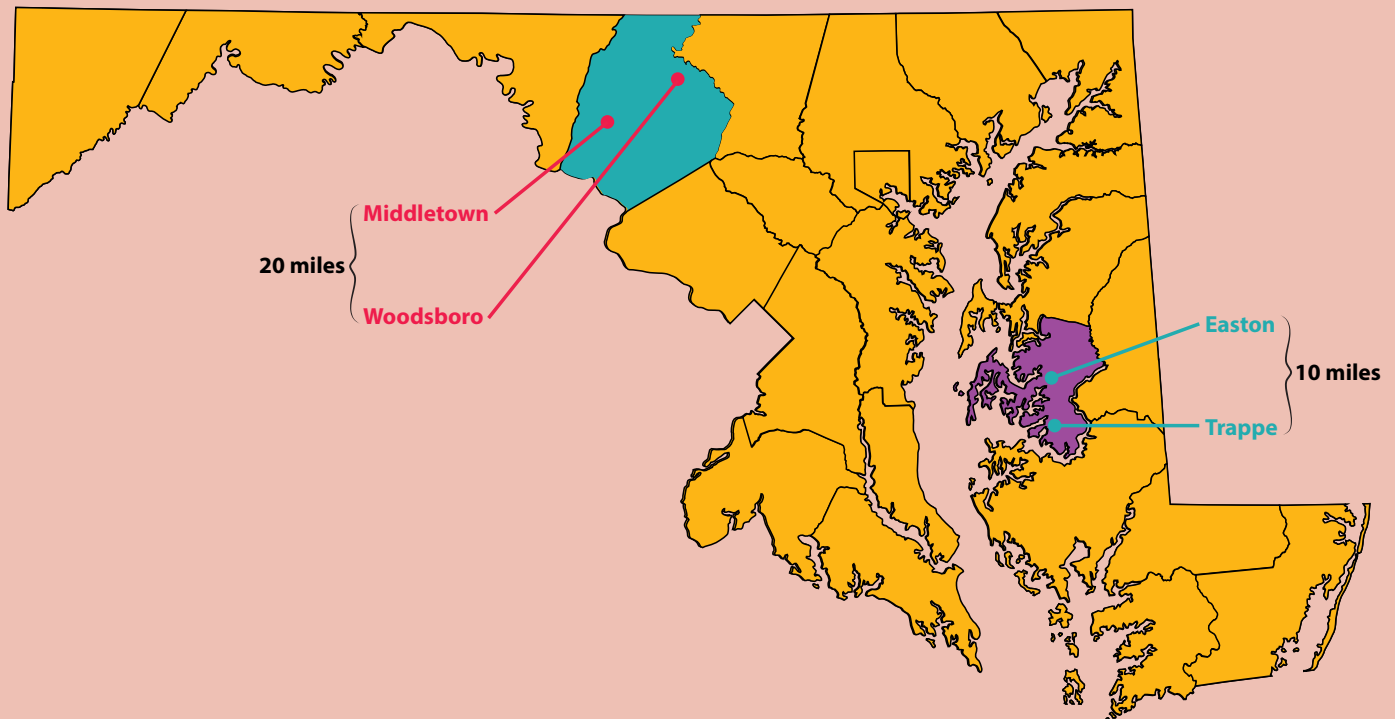
County and municipal laws play a large role in determining whether households have continuous access to water and sewer services. These laws affect the most vulnerable as they try to avoid the accessibility trap each billing cycle. Local laws determine whether the service provider can shut off services. Those same laws set the financial repercussions for residents who lose access to water and sewer services, from the interest rate and disconnection and reconnection fees to any additional administrative fees or reconnection terms. The laws also determine whether unpaid water and sewer bills can become liens and eventually foreclosures. While the objective of these laws may be to incentivize the payment of bills for services rendered, they have the unintended consequence of potentially punishing low-income families, especially those who have no alternative to letting their water be shut off. Without providing alternative options, water shutoffs represent blunt instruments that can make the accessibility trap inescapable for those who are *unable* to pay.

NEIGHBORING TOWNS; DISPARATE CONSEQUENCES

To illustrate the impact of law on water affordability for Maryland residents, we examine the laws of two sets of neighboring towns: Easton and Trappe and Middletown and Woodsboro. Using a hypothetical unpaid bill of \$100 dollars, we set forth the timeline, based on the municipalities laws, by which residents would have to act to forestall a shutoff and we calculate what residents in each town would need to pay to have their water reconnected in the event of a shutoff. As you will see from the examples below, neighboring residents can have very different experiences before and after water shutoffs. For households experiencing hardship in paying their bills, these differences can deeply impact their ability to stay connected or to reconnect to water service.

Easton and Trappe

The towns of Easton and Trappe are located only eight miles from each other in Talbot County, yet these towns have vastly different laws governing water affordability. Easton allows for water and sewer services to be shut off if the bill remains unpaid 15 days after it is due and does not require the town to send a resident notice of the impending shutoff prior to disconnection.¹⁵² Under Easton municipal law, when water services are disconnected, a \$35 disconnection fee is assessed, a late charge ranging from 1.5 percent to 5 percent of the unpaid bill is charged, and a \$35 reconnection fee is charged, to which a \$10 fee can be added if the reconnection is completed outside of normal operating hours.¹⁵³ Finally, Easton allows for unpaid bills to become a lien on the property.¹⁵⁴ Easton does not specify any additional reconnection terms in their municipal charter.



Using our example of a hypothetical \$100 bill, Easton residents would have just over two weeks from the stated due date of the bill to pay the full amount. In the event that a resident is unable to pay, the missed bill payment would accrue a minimum of \$71.50 additional dollars in fees to be paid in full before reconnection. The resident would owe a minimum of \$171.50 before their water could be turned on.

In Trappe, water services can similarly be shut off for nonpayment.¹⁵⁵ A bill is considered late 30 days after nonpayment and a notice must be sent 14 days before water services can be terminated. Therefore, water cannot be shut off any fewer than 45 days after a bill becomes due.¹⁵⁶ Trappe's law also creates a special caveat for shutoffs in the event of certain weather conditions. If the temperature is forecast to be 90 degrees Fahrenheit or higher on the day of the scheduled water shut off, service termination is prohibited.¹⁵⁷ Trappe assesses a disconnection and reconnection fee, each priced at \$35, as well as a "service charge" of 2 percent monthly on delinquent bills.¹⁵⁸ Similarly to Easton, Trappe allows for an unpaid water bill to become a lien on the property.¹⁵⁹ To reconnect, a resident of Trappe would have to pay all delinquent charges and fees *in person*. Trappe allows residents to negotiate payment plans to repay their bills over time, relief not openly offered by Easton.¹⁶⁰

Using the same hypothetical \$100 bill, a resident of Trappe would have a minimum of a 45 days—as opposed to the 15 days in Easton—to pay the original bill amount before water service termination. Even then, the Trappe resident may be spared a water shutoff in the hot summer months when the weather is above 90 degrees regardless of whether they have paid the bill. After missing the payment due date, \$72 additional dollars would be charged through fees and interest, and the resident would have to pay a total of \$172 *in person* at the Town Office. For both Easton and Trappe, water can only be restored between 8:00 AM and 4:00 PM Monday through Friday, meaning that a resident may have to take off work to be physically present for the reconnection. This adds additional costs resulting from failure to pay. While the final bill amounts due at the time of reconnection are ultimately not very different, the terms and conditions of the disconnection and reconnection are notably different—including Trappe's payment plan options—resulting in different payment timelines and pressures on individuals who are in the same financial situation, but different zip codes.

Middletown and Woodsboro

As another point of comparison, the towns of Middletown and Woodsboro are located about 20 miles apart in Frederick County. Middletown and Woodsboro both allow for the disconnection of water for nonpayment of water bills. Middletown requires that two notices be sent to a resident prior to water shutoff. The first notice is sent 30 days after the bill is due and notifies the resident that the bill is in arrears. The second notice is sent 60 days after the bill is due and notifies the resident that water and sewer services will be shut off. An administrative fee of \$20 is assessed at the time of the second notice.¹⁶¹ A late charge of 1.5 percent of the bill is assessed after 30 days of nonpayment while interest accrues monthly at a rate of 1.5 percent.¹⁶² Middletown does not have a disconnection fee, but the reconnection fee is assessed based on a tiered system. If this is an individual's first nonpayment offense, the fee is \$50; if it is his or her second offense in 12 months, the fee becomes \$100; and if it is the third offense in 12 months the fee is \$150.¹⁶³ Moreover, Middletown mandates that, "the unpaid balance of the bill and the reconnection fee must be paid, in full, by cash and/or money order *in person* at the Middletown Municipal Center" before water will be reconnected.¹⁶⁴ Middletown will not terminate service if the unpaid bill is less than \$50.¹⁶⁵ The town will also arrange payment plans on a case-by-case basis.¹⁶⁶

Using our hypothetical \$100 bill, a resident of Middletown would have a minimum of three months to pay the original bill before disconnection could occur, over the course of which two notices would have been received by the customer. This three month grace period before disconnection gives low-income and vulnerable households much more time to pay the original water bill and avoid water disconnection.¹⁶⁷ At the end of the three month grace period, \$26 of fees would have been assessed and the resident would owe a total of \$126. If the resident was not able to pay the \$126, leading to a shutoff, then he or she would owe a minimum of \$176 before reconnection. Once disconnected, the resident is required to pay the full bill amount in cash or money order *in person* at the Middletown Municipal Center.

Woodsboro provides for 60 days before service termination,¹⁶⁸ does not require notice to be provided prior to water service termination, and assesses a monthly interest rate of 1.5 percent.¹⁶⁹ To reconnect water services, Woodsboro charges a reconnection fee of \$100 that must be paid in advance of reconnection. However, there are additional conditions that apply in order for a Woodsboro resident to be reconnected to water services including paying all outstanding water and sewer charges and paying in advance an amount equal to the previous billing cycle amount. That advance payment is then credited to the next bill.¹⁷⁰ Unlike Middletown, Woodsboro does not openly offer payment plans for those with delinquencies.

In the \$100 hypothetical example, a Woodsboro Resident would have two months to pay the original bill before the threat of disconnection. However, once disconnected, the fees and conditions would amount to the original bill payment of \$100, the disconnection fee of \$100, and the advance payment of \$100. While the advance payment would technically be a credit, the Woodsboro resident would still have to pay a minimum of \$300, or three times the original bill amount, up-front, to be reconnected to water services.

In both Middletown and Woodsboro, liens and foreclosures are allowed for unpaid water or sewer bill. Neither town offers a low income rate assistance program, though Middletown does openly offer payment plans to its residents. These towns, despite their proximity, have different laws and policies resulting in very different options and consequences for neighboring residents, which can disproportionately affect vulnerable citizens.

The chart below further summarizes the different results that stem from different municipal laws governing access to water and affordability. The calculations below demonstrate the financial repercussions, including a water shutoff, for residents living in each of the four municipalities discussed earlier, based on a hypothetical delinquent water bill of \$100.

	Easton	Trappe*	Middletown**	Woodsboro
Original Water Bill	\$100	\$100	\$100	\$100
Disconnection Fee	\$35	\$35	-	-
Reconnection Fee	\$35 / \$45 (if after hours)	\$35	\$50 or \$100 or \$150	\$100
Interest Rate (%/\$)	-	-	1.5% (\$1.50/ month for 3 months until disconnection= \$4.50 total)	1.5% (\$1.50/month for 2 months until disconnection= \$3.00 total)
Late Charge (%/\$)	1.5-5% (\$1.50-5 one-time fee)	2% (\$2/month)	1.5% (\$1.50 one-time fee)	-
Miscellaneous Charges			\$20 for sending termination notice	\$100 (payment in advance of amount equal to last billing cycle to be credited to next cycle)
Total	Ranges from \$171.50 to \$185	\$172	Ranges from \$176 to \$276	\$303
% bill increase	71.5% to 85% bill increase	72% bill increase	76% - 176% bill increase	Over 300% bill increase
Days before disconnection	15	Minimum 45	90	60
Liens	Y	Y	Y	Y
Payment Plans Available	N	Y	Y	N

*Shutoff will not occur in temperatures of 90 degrees Fahrenheit or hotter.

**Shutoff will not occur if original bill amount is \$50 or less.

Current water shutoff laws are blunt instruments, punishing those who are unable to pay, not just those unwilling to pay.

While shutoff laws ensure on-time and in-full payments to the water utility, which is necessary for the utility to provide its services, when shutoffs are exercised in the absence of low-income rate assistance programs they become blunt instruments against those who are *unable* to pay. As discussed, there are additional fees that can deepen the financial hardship from a shutoff. Over 80 percent of Maryland municipalities allow shutoffs, while only 28 percent of those offer a low-income rate assistance program. Of the 18 counties—out of 23 total—that allow for shutoffs, three offer assistance with bill payment and four offer assistance for first time connection fees. While shut off laws are designed to deter non-payments from those *unwilling* to pay, they instead end up punishing those households who are *unable* to pay.

The water and sanitation sector lags behind many other sectors in providing programs that ensure access to necessary services for impoverished citizens.

Some municipalities and counties forbid water shutoffs in unique circumstances, thereby recognizing the public health risk that is presented when access to water is terminated. The municipalities of Oxford, Queenstown, and Trappe prevent water service from being terminated “when the outside air temperature is over 90 degrees [Fahrenheit] or forecast to be over 90 degrees [Fahrenheit] on the day after the scheduled turnoff.”¹⁷¹ No special health-based circumstances are considered at the county level. While this type of law is the exception, not the rule, it is important to acknowledge where municipalities have recognized the danger that inaccess to water in the home can have on families’ health.

As with all services, providing water and sanitation comes with the expectation that the utility will recoup its costs and remain viable. When a utility provides a service, it spends money, time and resources to provide a service it expects customers to pay for, allowing it to recuperate its costs and to continue providing that service. If utilities are not able to recoup their costs, the financial viability of the system is undercut, threatening the utilities’ ability to provide the services. That

said, the water and sanitation sector lags behind many other sectors in providing programs that ensure access to necessary services for impoverished citizens. This stands in stark relief against other sectors that provide services but also provide assistance programs.

In comparable sectors where services provide basic necessities, laws have responded to the needs of low-income households by establishing assistance programs that ensure access to essential services such as heating and food, while still preserving the businesses that provide the service. Supplemental Nutrition Assistance Program (SNAP), Low-Income Home Energy Assistance Program (LIHEAP), and low-income housing programs were created to help ensure that everyone has access to necessities such as food, heat, and shelter, regardless of their ability to pay in full. However, as of yet, no national equivalent exists for drinking water and wastewater services.

The case study that follows illustrates some lessons that can be learned from LIHEAP programs, including how those lessons can be applied in the context of ensuring water affordability.

LOW-INCOME RATE ASSISTANCE IN OTHER SECTORS: LESSONS FROM LIHEAP

Despite the differences in services being provided, there is a lot the water sector can learn from other sectors' approaches to establishing rate assistance programs for low-income families. Within the energy sector, Maryland has adopted four forms of rate assistance programs—the Maryland Energy Assistance Program (MEAP), the Utility Service Protection Program (USPP), the Electric Universal Service Program (EUSP), and the Arrearage Retirement Assistance—that serve as strong examples of what could be adopted in the water and wastewater sector.

Funding for Maryland's home energy rate assistance programs comes from the Low Income Home Energy Assistance Program (LIHEAP) at the Federal level. LIHEAP is a federal low-income assistance program for home energy bills. It was established in 1981 as part of Omnibus Budget Reconciliation Act (P.L. 97-35).¹⁷² The program provides annual federal funding to states, tribes, and territories who operate low-income assistance programs focused on minimizing the impact of heating and cooling homes during the hottest and coldest months.¹⁷³ Funding from LIHEAP takes two forms: (1) regular funds, which are formulaic funds or "block funds" that are given annually to the state, territory, tribe, or other grantee; and (2) emergency contingency funds, which are granted at the discretion of the President and the Secretary of Health and Human Services (HHS)¹⁷⁴ in cases of emergency as defined by the LIHEAP statute.¹⁷⁵

The Federal LIHEAP statute provides minimal "assurances" that grantees must meet when applying to HHS for LIHEAP funds.¹⁷⁶ Program structure and administration—including how those assurances are met—is left to grantees (i.e. the states, tribes, and territories) to decide.¹⁷⁷ The LIHEAP statute outlines the four ways in which funds may be used:¹⁷⁸ (1) to provide assistance to help residents meet their home energy costs by providing funding for heating and cooling;¹⁷⁹ (2) to provide assistance in energy crisis situations;¹⁸⁰ (3) to provide low-cost residential weatherization or other energy efficient home improvements; and (4) for program administration.

The Federal legislation also outlines minimum eligibility requirements for benefits based on income levels or receipt of other benefit programs.¹⁸¹ Eligible households include those in which one or more person is a recipient of benefits from the Supplemental Nutrition Assistance Program (SNAP), supplemental security income (SSI), the Temporary Assistance for Needy Families program (TANF), or certain veterans programs.

Additionally, households with an annual income equal to 150 percent of the state poverty level or an income equal to 60 percent of the state median income are eligible for payments through LIHEAP. The statute also requires outreach on the part of the state to ensure that vulnerable citizens, especially elderly or disabled individuals, or those with high energy burdens, are aware of LIHEAP assistance.¹⁸² States provide HHS with an annual state plan outlining the program operations, enrollment, benefit levels, and description of weatherization projects, among other factors.¹⁸³

States, however, are given a lot of autonomy to choose how the funds are spent--i.e. whether the money will go directly from the federal government to the household, or if it will go to the utility, who will then provide it to qualifying households--and how the program is implemented.¹⁸⁴

The Maryland Energy Assistance Program (MEAP) is administered by the Maryland Department of Human Services¹⁸⁵ and Office of Home Energy Programs (OHES), which receives the "block funds" from the Federal government. MEAP provides financial assistance to customers who need help paying their heating bills. Through MEAP, the OHES makes payments directly to the energy supplier or utility on behalf of the customer.¹⁸⁶ The Electric Universal Service Program (EUSP), also operated through the OHES, provides financial assistance with electric bills. Recipients of the EUSP pay a portion of their electric bill and enter into a "budget billing plan" with the utility.¹⁸⁷ The Arrearage Retirement Assistance helps customers pay large, past due electric and gas bills, and provides bill forgiveness to customers with large energy bill burdens.¹⁸⁸

Finally, Maryland also has a Utility Service Protection Program, which provides funds for eligible low-income residential customers to prevent utility service termination during the winter heating season--November 1 to March 31--and sets limitations on the authority of an energy utility to uni-

laterally terminate service for non-payment.¹⁸⁹ MEAP and USPP are different programs, with the former designed only to assist with heating and cooling bills; the latter designed to prevent service termination for non-payment for low-income residents during the winter months. However, in order to be eligible for USPP benefits, the customer must first be eligible for MEAP.¹⁹⁰

The laws establishing the LIHEAP, MEAP, and USPP programs serve as examples of how the law can balance a water service termination policy with a low-income rate assistance program. LIHEAP demonstrates that a shut off policy can coexist with a LIRA program, guaranteeing that the shutoff policy does not become a blunt instrument against those that are *unable* to pay versus those that are *unwilling* to pay. These programs also facilitate greater communication and transparency between the utility and the customer, by clearing outlining customer and utility responsibilities.

There are five components of the USPP legislation that could be used by the water sector to improve water affordability.

- (1) The laws clearly define the customer-utility relationship and each party's respective responsibilities, enhancing transparency and communication.
- (2) The laws are flexible enough to account for the different challenges experienced by small systems versus large systems.
- (3) By encouraging weatherization programs and funding energy-efficiency projects, the laws promote cross-sector communication and expand the notion of affordability beyond just the payment of past or current bills and as a function of infrastructure maintenance.
- (4) The laws mandate reporting requirements about the number of energy shutoffs, the levels of benefits, and the number of recipients, among others indicators. This type of data reporting forces utilities to understand the capacity of their user-base, and increases the transparency of utility operations.
- (5) Overall, the laws create a baseline LIRA program across the state. By providing funds to states to compensate utilities, while maintaining minimum eligibility requirements federally, LIHEAP, MEAP, and USPP eliminate affordability as a function of where you live.

The laws clearly define the customer-utility relationship

Subtitle 31 of Title 20 of the Code of Maryland Regulations (“COMAR”) establishes the terms and conditions governing the USPP. These statutes uniquely acknowledge a complex relationship between the utility and the customer. The first two substantive sections of this subtitle are “Customer Responsibilities” and “Utility Responsibilities.” The customer responsibilities include a responsibility for bill payment and general compliance with the legislation, as well as reporting requirements on household demographics prior to service termination, and dispute resolution methods that require the customer to work to resolve disputes with the utility before contacting the Public Service Commission (PSC).¹⁹¹ Similarly, utilities have general responsibilities to provide service to their customers, and may only terminate service for non-payment in non-winter months—from April 1-October 31¹⁹²—as long as that service termination would not endanger human health, life, or safety.¹⁹³ The statute requires the utility to provide customer protection and send Customer Rights Pamphlets containing the Service Termination Policy¹⁹⁴ to ensure that customers are informed of their rights and are aware of the service termination process and policies.¹⁹⁵

This type of clearly-defined customer-utility relationship makes the process of service termination more transparent. By mandating that utilities must inform their customers of the relevant laws and policies surrounding service terminations, both utilities and customers know exactly when they have failed to fulfill their responsibilities and when service termination is lawful.

In the water sector, the customer-utility relationship lacks the same clarity. The disjointed policies surrounding customer outreach, bill payments, and shutoff dates can lead to distrust between customers and their water utilities, to a lack of understanding of the responsibility of the consumer to the utility, and to unpredictability surrounding water shutoffs. While the information and dates of service termination in the energy sector are explicit, defined, and distributed to customers, the time-

line and terms of water shutoffs can be surprising and ambiguous. This lack of clear parameters in these relationships can frustrate the relationship between customers and utilities and breed distrust.

The regulations acknowledge the different challenges faced by large versus small utilities

The USPP was designed and implemented to limit termination of services for low-income individuals who qualify for MEAP.¹⁹⁶ Each gas, electric, or mixed utility governed by the Public Service Commission¹⁹⁷ must implement the USPP in their own systems.¹⁹⁸ The USPP requires utilities and customers to develop monthly payment plans,¹⁹⁹ and eliminates service disconnections during the winter months—November 1- March 31. The PSC oversees the USPP program, and participating utilities must “compile and maintain certain data” to be submitted to the PSC for annual program evaluation.²⁰⁰ However, the USPP statute recognizes that some utilities are smaller and have less capacity to implement the USPP, allowing smaller systems to develop comparable affordability programs. The statute states:

“[u]pon good cause shown, the Commission may authorize a municipally owned electric utility, a municipally owned electric and gas utility, or an electric or gas utility with fewer than 5,000 customers to establish instead of the Utility Service Protection Program another program designed to safeguard MEAP customers from termination of service during the heating season. In order to obtain this authorization, the utility shall show to the satisfaction of the Commission that implementation of the USPP will be unduly burdensome for the utility and that the alternative program provides adequate and appropriate safeguards to MEAP customers.”²⁰¹

In this sense, the legislation is sensitive to the needs of low-income customers, but not to the detriment of the utility. The laws are written with enough flexibility that smaller systems may develop their own unique programs that are less costly to run, as long as customer assistance and protection is not compromised.

The need to examine the challenges of differently-sized systems is apparent in the water sector. There are 151,000 different water utilities across the U.S., and while the majority of U.S. citizens get their water from a large utility, populations that receive their water from small utilities face very different low-income rate assistance options. Most small utilities simply do not have the resources to run a LIRA program as in depth or expansive as a larger utility could. Laws should account for the differences between small and large utilities and provide flexibility for smaller systems to take an alternative approach to reach the same end goal. It is this flexible and dual-focused type of legislation that makes USPP a potential model for the water sector.

In the water sector, the customer-utility relationship lacks the same clarity.

The laws promote cross-sector communication and expand the notion of affordability

The legislation governing the USPP and the legislation establishing LIHEAP at the federal level both require and encourage energy utilities to complete home weatherization improvements and energy-efficiency projects to reduce the actual energy used in a given home. Federal LIHEAP legislation mandates that States coordinate their financial assistance payments with other low-income programs,²⁰² including the Department of Energy’s Weatherization Assistance Program (WAP).²⁰³

The USPP mandates that energy utilities coordinate low-income weatherization projects with the Department of Housing and Community Development. The statutes stipulate that energy utilities must send certain energy use data²⁰⁴ per household to the Department of Housing and Community Development, and then the agencies work together on weatherization projects.²⁰⁵

Often, affordability concerns arise from more than just unaffordable bill payments. Inefficient homes can lead to both higher water bills and higher electric and heating bills. Weatherproofing homes and fixing leaking pipes, which make homes more efficient, are prohibitively expensive for many low-income families. LIHEAP has addressed this problem in a novel way, allowing LIHEAP funds to be used for weatherproofing projects, and even mandating the coordination of weatherization projects with other sectors. As a result, LIRA programs in the energy sector have expanded the notion of affordability beyond only the nonpayment of bills, and encouraged communication between all utilities that would benefit from weatherization. These types of regulations foster long-term investment in house-

hold infrastructure. This could be a model that increases water-efficiency throughout the country.

The laws mandate routine data collection and reporting

Perhaps one of the largest differences between the treatment of water utilities and gas/electric utilities in Maryland is the reporting and data collection requirements. While water utilities are not mandated to regularly publicize or collect data regarding water shut offs, bill nonpayments, and amounts of arrears, gas and electric utilities, on the other hand, must collect, maintain, and report of all of this data annually to the Public Service Commission.²⁰⁶ The PSC is required to publish an annual evaluation of USPP, but the specific data points that utilities must collect are determined by the PSC. The legislation requires the PSC to produce an annual report that includes information on “terminations of service by public service companies during the previous heating season,” including information on “the effect of the terminations of service on various categories of customers, including: (i) income levels; (ii) geographic areas; (iii) energy assistance recipients; and [any other PSC-determined and designated group].”²⁰⁷

The most recent annual report of the USPP, published by the PSC for the 2016-2017 winter season, asked utilities to provide data on:

- (1) General information on their user base: specifically, the number of USPP participants, USPP eligible non-participants among MEAP certified customers, total utility customers, and current participants who also participated in the previous year.
- (2) The number of customers for whom the utility’s service is the primary heating source
- (3) The number of customers making supplemental payments, average supplemental payment amounts, and the amount of arrearage leading to those payments.
- (4) Information on arrears, including the number of USPP participating and eligible non-participating customers in arrears, the amount of the arrearage, and the amount of the average monthly payment obligations.
- (5) The average MEAP grant amount.
- (6) The number of customers dropped from the USPP for non-payment of bills.
- (7) The number of service terminations for USPP participants.
- (8) The number of USPP customers consuming more than 135 percent of the system average for the heating season; and
- (9) The average cost of actual usage for the heating season.²⁰⁸

This type of data collection allows the energy sector to understand the benefits that LIRA programs provide to customers and utilities. The data collected under these programs has helped track trends in low-income needs and identify the supplemental benefits caused by these programs, including decreased reliance on program-funds.

One of the greatest challenges acknowledged in contemporary water affordability literature is the lack of data around water shutoffs and the lack of transparency and reporting on behalf of the utility.

One of the greatest problems facing low income individuals is that the laws are inconsistent.

Adopting reporting requirements for the water sector that are similar to those in the energy sector would help measure the true impact and scope of water shutoffs in the United States. Data monitoring requirements allow the energy sector to track changes and understand why populations are remaining in a program or to measure where the program has been successful. Similar requirements would help water utilities to measure the benefit

and reach of their assistance programs and to adapt them to changing needs.

By mandating electric and gas utilities to report average bill amounts, average arrear amounts, average assistance amounts, and the numbers of eligible and participating individuals in these programs,

the law mandates utilities to examine the problem of affordability. The lack of similar mandates for water utilities leave us in the dark on shutoffs impacts and causes.

The regulations create a generally uniform LIRA program across the state

One of the greatest problems facing low-income individuals today in relation to water and sewer services is that the laws surrounding water affordability, disconnection, or reconnection are inconsistent, with even neighboring towns subject to vastly different laws. The strict reporting requirements, limitations on service termination, and baseline eligibility requirements set forth in the USPP and the federal LIHEAP legislation provide a baseline uniformity to low-income rate assistance for customers of energy utilities across Maryland.

The USPP provides a good example of how LIRA programs are designed and implemented locally. These programs maintain the autonomy of the utility, but also create state-wide requirements for when and how service can be terminated, establishing a baseline uniformity to shutoff policies for low-income individuals. The LIHEAP legislation sets forth the minimum eligibility requirements that states must adopt to qualify for LIHEAP benefits, and even stipulates that renters and homeowners must be treated “equitably” under the law, and that no individual may be excluded from eligibility for LIHEAP based on household status.²⁰⁹ In Maryland, the PSC oversees and enforces the USPP, ensuring that Maryland residents are subject to baseline equity in utility shutoffs.²¹⁰

Shutting off water does not erase a family’s need for water. It just forces families to find alternative sources of water. These alternative sources can mean paying up to 300 times more per gallon for bottled water.²¹¹ Families may also use other benefits they receive, such as SNAP, for water rather than food. Shutoffs may force an impossible choice between water and rent or electricity. Without payment plans or rate assistance for low-income families, shutoffs become a blunt and ineffective tool that undermines the purpose of water shutoffs: to motivate payment. Terminating water service does not ensure payment from those customers who are *unable* to pay. It simply further exacerbates the financial hardship experienced by these families and frustrates their ability to maintain or regain access to water.

Without LIRA programs, shutoffs can exacerbate the inability to pay for water.

Assistance programs in comparable sectors show how the law can alleviate the accessibility trap. LIRA programs in other sectors provide guidelines for low-income assistance by: (1) explicitly defining the customer-utility relationship and fostering trust between utilities and customers; (2) acknowledging the challenges of differently-sized utilities and allowing smaller utilities to work within their means; (3) promoting intersectoral communication, and the use of LIRA funding to address root causes of inefficient service provision; (4) requiring data collection and

reporting that encourages utilities to evaluate their populations, evaluate their LIRA programs, and increase transparency of water affordability efforts; (5) creating baseline protections and ensuring baseline equality of access to essential services to low-income and vulnerable customers regardless of their zip code.

LIRA programs are not a perfect solution, but they do provide an option for addressing water affordability. While the lack of clear data on shutoffs and arrearages makes it difficult to project how much these programs will cost, they provide an important bridge to fundamental resources. For some families, particularly those living paycheck-to-paycheck, these programs can help those in poverty avoid greater debt and financial insecurity.

LIRA programs do not need to become debt forgiveness programs. There are more options available to utilities than just writing off debt. But for utilities, there is also an incentive. By identifying needy citizens and assisting them with payment in the short-term, utilities can focus collection efforts on those who choose not to pay, instead of attempting to collect uncollectable debt from those who cannot.

Without LIRA programs, water shutoffs feed the accessibility trap, forcing families into an impossible choice between basic necessities. By encouraging and assisting with payments, utilities can improve their customer relationships while avoiding the compounding of poverty’s impacts.

LIRA programs are uncommon in Maryland and those that exist are limited in scope and applicability.

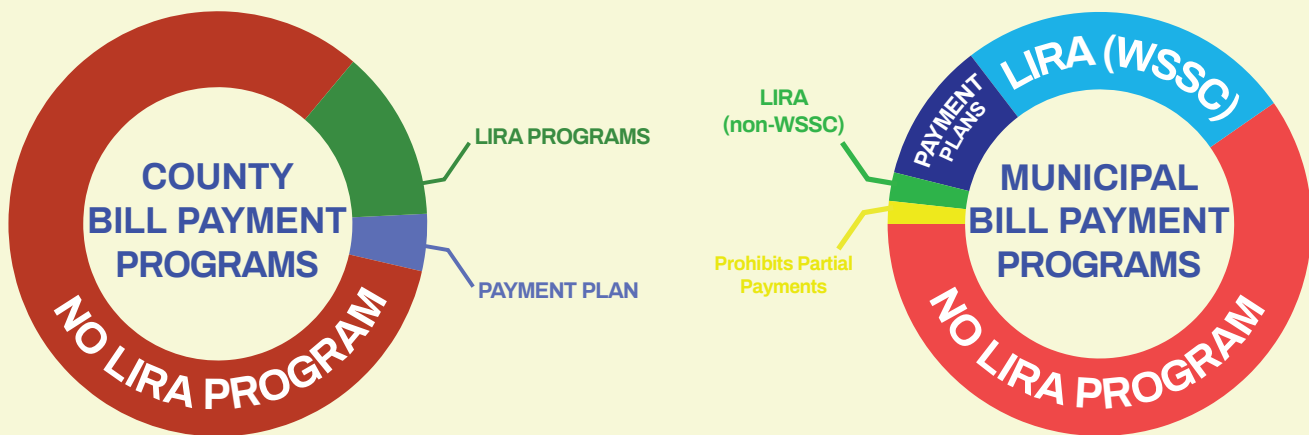
There are multiple kinds of costs and fees that can become part of a water customer’s financial burden. If left unpaid, these costs and fees can result in water shutoffs and liens. This report has already examined several types of financial penalties that are associated with bill payments, including late fees, interest rates, disconnection and reconnection fees. All of these costs and fees can deepen the accessibility trap, but they represent a fraction of the potential costs and fees that water and sewer customers can face.

Beyond the regular cost of bill payments, there are significant costs associated with connecting to and maintaining public systems, specifically through special assessments, first-time connection fees, and regular maintenance fees borne by homeowners.

bills, the most basic and frequent charges a customer faces.

Low-income rate assistance programs are uncommon throughout Maryland.

Despite the importance of maintaining access to water for all households, Maryland state law does not address the provision of assistance for low-income or vulnerable families who are unable to pay water and sewer bills. LIRA programs do not exist in most municipalities. Even after accounting for other methods of financial assistance, almost two-thirds of municipalities do not have programs that acknowledge or address financial hardship.



Existing LIRA programs are not only uncommon in Maryland, but are also frequently inadequate to respond to these additional affordability challenges. The limited existing municipal programs focus solely on alleviating financial pressure from bill payments, and do not address supplemental costs and fees associated with receiving water services that can also threaten a customer’s access to water and sewer. It is important that assistance programs comprehensively address the different charges and fees that can be assessed for receiving water services, especially if non-payment of these charges and fees can result in shutoff. In the figures provided, we illustrate how few municipalities and counties provide rate assistance for water and sewer

Forty-four municipalities, or 28 percent of all municipalities, offer a LIRA program; only three of these municipalities—Annapolis, Baltimore, and Westernport—are outside of the WSSC service area. Seven counties, or 30 percent of all counties, offer a LIRA program, with only three, Montgomery, Prince George’s, and Queen Anne’s Counties, offering direct bill assistance. Queen Anne’s County exempts certain properties from the “ready to serve” charge, while Montgomery and Prince George’s Counties—both located in the WSSC service area—offer a more traditional assistance program.²¹²

Payment plans allow customers to pay a bill or several bills over an extended period of time. While payment

BALTIMORE'S LOW-INCOME WATER BILL ASSISTANCE PROGRAM

The Baltimore City Department of Public Works offers a Low-Income Water Bill Assistance Program for families that fall at or below 175 percent of the Federal Poverty Level (FPL).²²⁴ However, to qualify for assistance, households must meet additional requirements. One requirement limits the eligibility of recipients to those who are “the water utility account holder and receive the water bill directly from the City.” This requirement excludes any renters who do not receive the bill directly or for whom the water bill is included as a portion of their rent, regardless of the applicants’ poverty level or income. According to 2010 U.S. Census data, 33.2 percent of all occupied housing units in Baltimore are filled by renters, meaning around 253,907 people may be excluded from LIRA programs just because they are renters.²²⁵ By not including language or provisions that account for renters directly, the Baltimore City water assistance program potentially excludes a third of its population from eligibility.

Second, the program requires the applicant to have received “a delinquent, turn-off, or tax sale notice due to their account being in arrears” and disqualifies any applicant currently on a payment plan.²²⁶ This requires applicants to miss payments in order to be eligible for rate assistance.

Baltimore’s assistance program is an example of a reactive policy. Because accounts must be in arrears before customers can be eligible for rate assistance, Baltimore’s program frustrates the exact problem it seeks to address. While it is intended to reduce delinquency rates and encourage affordable bill payments, it first forces bills to be delinquent and unpaid to even be eligible for assistance. In fact, customers who need assistance have no choice but to leave their bills unpaid—and incur greater debt—in order to be eligible for assistance.

This program works against itself financially. By waiting for bill payments to be in arrears and late fees and charges to accumulate, Baltimore’s program forces a water bill to become more expensive before providing financial assistance. As a result, assistance money ends up being used by customers to pay fees and charges that could have been avoided. The reactive nature of the policy reduces the impact that assistance can have on lifting a household from the accessibility trap.

Finally, the program works against itself from a poverty standpoint. By providing assistance only after bills are late and fees have been assessed, Baltimore’s program forces the poor to pay more overall. These fees raise the overall cost of paying the debt back, deepening the financial hole before providing a lifeline.

plans extend the period of time customers have to pay their water bills, and potentially stave off a shutoff of services temporarily, they typically do not reduce or forgive a household's debt or the fees incurred due to late payments. While payment plans can help soften the impact of water shutoff laws, the financial relief may be minimal and short-lived. Customers are still responsible for the entire bill payment and for new bills; there is no reduction in the amount they owe to the utility.

In addition to, or instead of, offering LIRA programs, 10 percent of Maryland municipalities allow customers to enter into payment plans. Only one county, Anne Arundel County, allows for payment plans in its law. The laws of three municipalities—Charlestown, La Plata, and Snow Hill—prohibit partial payments on water and sewer bills, seemingly eliminating payment plans as an option for low-income households in those communities.²¹³ Even taking into consideration payment plans, 62 percent of municipalities and 87 percent of counties do not offer any sort of assistance for bill payments, either in the form of a LIRA program or a payment plan.

Existing LIRA programs are inadequate in scope and availability to respond to the needs of customers. Most LIRA programs ignore the full scope of financial commitments associated with water and sewer service connection and provision. Additionally, under many LIRA programs eligibility is limited to the elderly or to homeowners, potentially excluding a large portion of the low-income population from these protections.

Special assessments, first-time connections and private property maintenance are not generally included in low-income rate assistance programs, but they present a real threat to low-income individuals.

The laws governing shutoffs are not the only drivers of the accessibility trap. The laws that dictate special assessments, first-time connections, and private property maintenance (e.g. maintenance to resolve water wastage or replace lead or copper pipes) can have a significant impact. As with shutoffs, the conditions and rules differ in each municipality, except in one critical way: the responsibility for payment falls equally on the ratepayers, regardless of ability to pay.

Special assessments pose a unique and costly threat to water affordability

Special assessments are periodically assessed against homeowners and may present a challenge to low-income families.²¹⁴ Special assessments are costs that can be levied on municipal residents to finance capital improvement projects, such as maintenance of existing

water and sewer mains or the extension of the network to currently unconnected households. Assessments are typically levied on properties abutting the improvements and vary in their cost based on the overall cost of the improvement project. As with other unpaid water bills, unpaid special assessments can become liens on the property, which in turn can accrue interest, adding to the total amount owed.

One hundred and thirty-one municipalities, or 83 percent of Maryland's municipalities are authorized to levy special assessments to pay for the maintenance of existing public water and sewer systems or for new construction. Of those municipalities that levy assessments:

- Fifty-three percent cap assessment costs at 25 percent of the property value,
- Twenty-four percent specify a maximum repayment period of ten years,
- Thirty-two percent specify a maximum repayment period of 20 years,
- Seventy-two percent allow unpaid special assessments to become liens,
- Two percent designate special assessment-based liens as a priority lien, and
- Eighty percent allow for interest to accrue on unpaid liens.

Based on these figures, special assessments have the potential to be greatly burdensome. Despite that, no LIRA program in Maryland provides assistance for homeowners burdened by these costs.

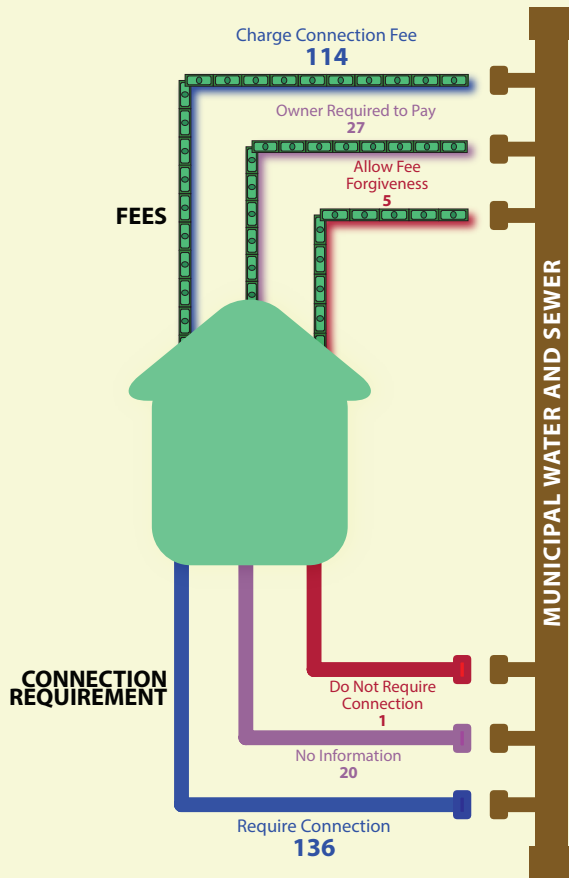
Special assessments are an important source of revenue for much-needed infrastructure maintenance and operation that keeps water and sewer services safe and reliable. However, without the necessary safeguards, these expenses become a financial burden that threatens low-income households' access to water rather than protects it.

First-time connection fees compound affordability issues for some

Mandated first-time connections to public water and sewer services often require large upfront payments. Municipalities have the authority to mandate connection to the public water system on any properties abutting public water mains and to require residents to pay all costs and fees associated with making the connection. Of the 157 total municipalities, 136 or

87 percent explicitly require individuals to connect to both water and sewer mains once they become available. Thirteen counties, or 57 percent of all counties, require connection to public services once they are available. Only one municipality, Oxford, explicitly does not require individuals to connect to either public water or sewer mains.

Municipal Requirements for connection to water and sewer services



those 136 municipalities that require individuals to connect, 83 percent allow for a connection fee to be charged and 19 percent explicitly require the property owner to pay these fees. Most counties also require owners to pay the cost of connection, but six counties provide financial assistance to defray connection costs. Only 4 percent of municipalities that require connection provide some form of financial assistance or fee waiver for connection fees.²¹⁵

For those that quote fees, the cost can range from \$350²¹⁶ to \$10,500²¹⁷ depending on the connection. Only two counties²¹⁸ and 20 municipalities, plus the 41 municipalities within the WSSC service area, publish

the fees for these connections. Many municipalities also set out a deadline by which households are required to connect to services once they become available. For those that specify a connection time, the timeframe ranges from 30 days to 180 days. If these deadlines are missed, households may be penalized with additional fees.²¹⁹

Of Water wastage fees and general system maintenance constitute a double threat to low-income households

Water wastage, comprised of water leakage from aging, cracked pipes, is a hidden cost that is frequently forgotten in affordability programs. Households are typically expected to maintain the water infrastructure located on their private property or the water and sewer lines that run from the water meter to and throughout the house. While such maintenance could reduce water loss and, therefore, the cost of the water bill, this maintenance does not come free.

Water wastage presents two challenges to low-income households. First, water leakage can significantly increase the water bills of households. Second, when water wastage is discovered, some municipalities require households to fix the faulty pipes causing the leakage.

Households experiencing leaks from the pipes on their private property pay for both the water leaking from the pipe that does not reach the home as well as the water actually consumed. Water meters cannot distinguish between the two uses. While some municipalities provide bill assistance for unusually high bills caused by water leakage, this financial assistance is limited to bill reduction and is typically offered only for first offenses. If the owner is unable to prevent the leaks, then these higher bills will continue even after the assistance ends.

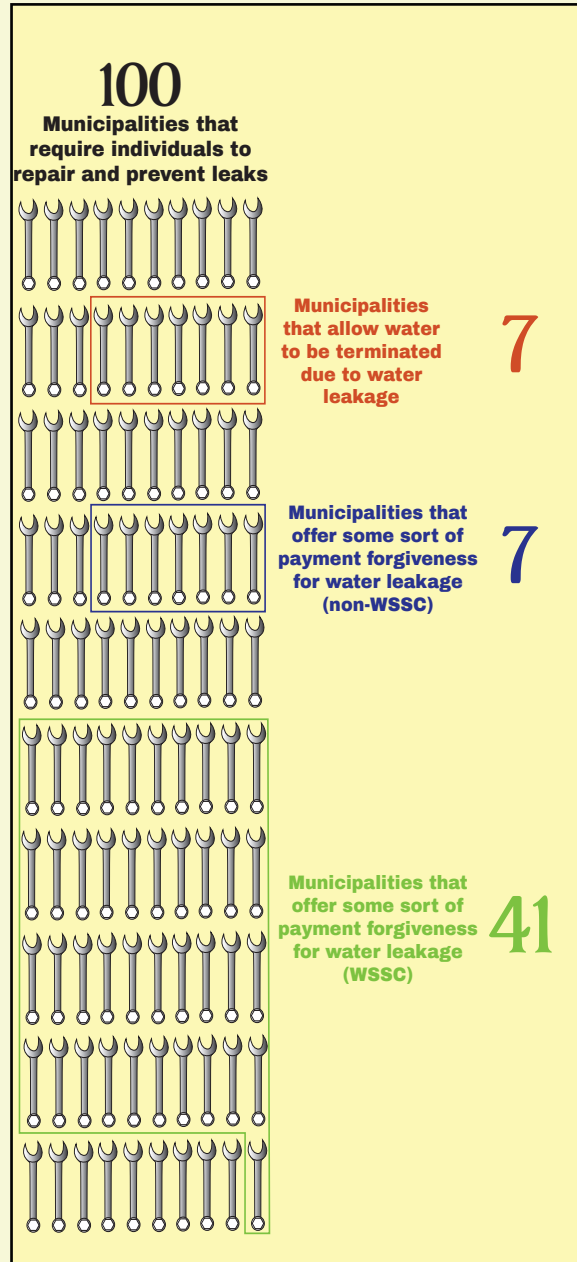
Of the 157 municipalities in Maryland, 100 mandate that individuals repair any water leaks and prevent the “willful waste of water” at their own expense. Forty-eight municipalities provide financial assistance to homeowners to fix those leaks, but only seven of these are outside WSSC’s jurisdiction.²²⁰ One county, Somerset, provides limited sewer bill credits when a homeowner has surprise water leaks.²²¹ In addition to higher bills, failure to fix these leaks can have other financial and accessibility consequences. Of those municipalities that require individuals to fix water leakage, seven allow water services to be terminated if individuals fail to perform the necessary repairs.²²²

Few LIRA programs in Maryland have considered the full scope of affordability costs, including those

costs associated with connecting to or being connected to the public system. For example, maintenance of infrastructure on private property is essential to the provision of safe, reliable services but for some it is prohibitively expensive without assistance. Because of higher bills associated with wastage, homeowners will end up paying either way.

LIRA programs should be expanded where feasible to provide assistance for infrastructure maintenance and expansion, and account for the full costs of affordability, not just bill payments.²²³

LIRA programs are an important tool that can prevent households from falling into the accessibility trap. To be most effective, LIRA programs should proactively identify the most dangerous traps and target assistance to prevent the loss of access to water services. Creating an effective program requires understanding the populations being served and the costs needed to operate an effective and efficient utility. Creative solutions may also require partnerships across municipalities and the development of ways to share costs that free up money that can be used for assistance programs.



WSSC'S HOMESERVE CARES PROGRAM

The WSSC's HomeServe Cares program is a unique example of a program that offers financial assistance for the repair of leaking pipes on private property. The HomeServe Cares program is designed to "aid qualifying homeowners faced with a service emergency who do not have a service plan, the necessary funds to cover emergency home repairs and no other funding sources are available for the repairs."²²⁷

Eligibility for the HomeServe Cares program requires that the "[a]pplicant must be experiencing an emergency breakdown of one of their household systems, such as the exterior water service line, sewer line, or in-home plumbing" and "must not have any other reasonable means of paying for the home repairs, including insurance, a home service plan or service program, access to grants or government programs, or funding from a utility or service provider."²²⁸ While this language is not broad enough to include special assessments or first-time connections, it does account for emergency situations, allowing individuals to maintain access to water and wastewater services even if they are unable to pay for emergency repairs themselves.

The HomeServe Cares program requires that the "[a]pplicant must own the single family home where the repairs are sought."²²⁹ While this language would preclude renters from accessing this funding, HomeServe is unique because it addresses broader affordability concerns, such as maintenance and upkeep of the system.

Faulty and failing infrastructure threatens access to water and is prohibitively expensive to repair. Programs like the HomeServe Cares program recognize that reality and ensure that low-income families can make necessary repairs even when they are unable to self-finance them. Making these improvements counters water wastage and reduces the amount of water and sewer bills. In return for reduced bills, households are incentivized to do their part in optimizing the overall water infrastructure by fixing water infrastructure that causes water wastage. This practice benefits both utilities and customers.

Money paid for the provision of water and sewer services is frequently not reinvested in water infrastructure or water utilities.

State, county, and municipal laws can dictate how ratepayer money can be used and where revenues from water and sewer bills are spent. Where the state does not set the rules, municipalities, counties, or utilities can set their own rules governing the use of ratepayer monies.

In Maryland, certain municipalities specifically require that money collected from ratepayers be reinvested into water infrastructure and related services. For example, the municipality of Havre de Grace states: “all assessments collected under the schedule shall be deposited into a separate enterprise fund of the City water and sewer service system and not into the general funds of the City.”²³⁰ Similarly, the municipality of Keedysville states, “[a]ll funds and revenues of whatsoever nature or kind pertaining to the water department and/or management of the system shall be kept in a separate fund, and utilized to meet the operation, maintenance, depreciation, labor, interest, bond retirement, sinking fund requirements and additions, improvements or other necessary expenses and indebtedness of the department.”²³¹ These types of laws prohibit ratepayer monies from being commingled with the municipality’s General Fund and instead require ratepayer money generated from water and wastewater services to be ringfenced for water- and wastewater-related services exclusively.

However, most Maryland municipalities do not require ringfencing. Only 26 municipal codes explicitly state that water rates must be collected in a separate fund designated exclusively for the public water and wastewater utilities. Under Maryland state law, the revenue collected from ratepayers living in the 41 municipalities within the WSSC service area can only be used by the WSSC. Ringfencing protects the financial integrity of the service being provided and is especially important for adequately financing water and wastewater infrastructure maintenance, operation and capital improvements. Diverting revenue that has been generated by customers endangers the long-term security of the service-providing infrastructure and diminishes the ability of the utility to offer affordability programs. When revenue generated from paying customers is ringfenced, there is a greater likelihood that affordability programs can be funded.

Rate increases can also be mandated by municipal statutes, but there are no guarantees the additional revenue will be reinvested in water and wastewater services. Three municipalities, Hampstead, Leonardtown, and Rising Sun, require that water or sewer rates be increased annually. Hampstead states that water rates will rise by 10 percent per year. Leonardtown requires sewer connection charges to increase by 7 percent each year. Rising Sun announced a 16 percent increase in the water rate for the use of the first 1,000 gallons from 2017 to 2018.²³²

Revenue generated from rates is necessary to sustain water and wastewater infrastructure. However, rising water and sewer rates increase the financial strain on low-income households, particularly when rate assistance programs or payment plans are not offered. Rate increases, mandated or not, have less value when there is no guarantee that the additional revenue collected will be reinvested in the service. This leaves the utility with rising costs and stagnant revenue. Statutory provisions that protect the investments of ratepayers in their water and wastewater infrastructure will not only protect the system and the utility, but will allow for low-income households to be protected from the accessibility trap.

Creating successful LIRA programs depends on ensuring that municipalities reinvest ratepayer investments into water and wastewater utilities. This Report has discussed the tension that exists between the costs of providing water services and the necessity to recuperate these costs, while also keep water service affordable to low-income customers. The point of revenue reinvestment cannot be understated in this discussion. While the Report has focused heavily on LIRA programs as financial mechanisms to protect consumer access, understanding the ways in which law dictates rate changes and revenue streams is vital to creating a LIRA program that is balanced to ensure both customer *and* utility vitality. When laws do not mandate that revenues from water and sewer bills be reinvested in water and sewer infrastructure, they inhibit water utilities’ ability to adequately deliver safe, clean, reliable water service to the populations they serve.

Lack of widespread data collection and reporting requirements keep the accessibility trap invisible.

To date, there has been no national level assessment of the pervasiveness of water shutoffs in the United States and the resulting consequences. In the United States, there is limited public information on the number of individuals living without reliable access to safe, clean, affordable drinking water. There is also a scarcity of data on how frequently households lose and regain access over any given year.²³³ In Maryland, no municipality is required to publish information on the rate and frequency of water shutoffs or the money collected from fees associated with nonpayment and water shutoffs.

The lack of data surrounding the accessibility trap allows the crisis to remain invisible, leaving many in a silent thirst. Without data on water shutoffs, it is impossible to know the pervasiveness of the accessibility trap. To understand the scope of the accessibility trap and to develop responsive solutions, we need data and information. Data and information are necessary to create solutions that prevent families from falling into the trap.

For many customers, information is in short supply. Shutoff rules and costs are not easily obtainable. For some, the only information available is the maximum or minimum level of fees that are allowed by legislation. Compounding the problem, information about payment plans is also typically not available online, leaving customers unsure about what options are available and what costs may be coming. For consumers, this creates an uncertainty about the consequences of a missed bill, which in turn can lead to difficult choices.

While there have been some recent efforts to mandate the collection of affordability and shutoff information, notably the bipartisan U.S. Senate Bill S.3564, the Low-Income Water Customer Assistance Programs Act of 2018, these efforts are still in their infancy. Without this information, the true impacts of water inaffordability and shutoffs will remain hidden.

The current available information also makes it harder to know what efforts individual utilities might be making to address affordability issues. The laws paint a picture of draconian fees and shutoffs, but the reality may be bleaker or rosier. Without data from the utilities, the way the law is being implemented and enforced remains shrouded in secrecy. This makes it

difficult to know the true impact of the law, shutoffs, and fees on water affordability.

For utilities, collecting this data would enhance their ability to provide services. Identifying areas of need and areas challenged by repeat or consistent water inaffordability could also identify areas where water savings programs or technologies could be implemented to help decrease bills.

Increasing information on the impact and frequency of shutoffs can also encourage a greater debate over the financing of water utilities. Utilities often struggle to find funding for critical improvements that could improve the safety, reliability and efficiency of services, or even generate additional income for the utility, e.g. through anaerobic digestion or other energy creation systems. More information could lead to greater funding.

While Federal-State Revolving Funds and other financing mechanisms provide some relief for some utilities, the needs outstrip the available funds. Smaller utilities with smaller ratepayer bases and utilities with shrinking ratepayer bases face greater challenges in marshalling the funding for capital improvement projects, especially if their credit rating is weaker. The ability of utilities to generate funds impacts their capacity to maintain their infrastructure and offer affordability programs. Greater data at the state and local levels on the fluctuations of ratepayer bases, the availability and allocation of Federal and State grants and loans—including details of how the funding was spent and who spent it, total income from ratepayers, and the percentage of costs covered by ratepayer income, would help to provide critical insight into utilities' financial needs and viability. After all, if the system is not solvent, then there is no capacity to fund new infrastructure or proper maintenance, let alone a low-income rate assistance program for the most vulnerable.

Data also can indicate significant shifts and problems. As an example, between 2012 and 2017, Baltimore City shut off between five and 12,157 accounts per year, depending on the year.²³⁴ Even without more data, these numbers signal that there are many more questions that need to be answered.

Through this comprehensive data collection, money

can be better allocated, services can be better provided, and citizens can better understand the drivers of the water accessibility trap and how to address them. Greater transparency on utilities' financials and shut-off-related actions will also generate greater trust between customers and utilities. Water and wastewater infrastructure is user-funded; those users should be engaged and provided information, just as any shareholder would be. Ultimately, each user is an investor in their water system.

Transparency in water and sewer rates is also of critical importance, and is an area that requires greater investigation. Informed customers need information on rate-setting processes, what costs are covered, and circumstances that impact their rates.

Queen Anne's County, as an example, lays out the reasons that its water and sewer rates are higher as a preamble to their rate schedule. The preamble notes: the County's flat topography which requires more energy to move water and sewage; the heightened costs of treating sewage for discharge into the Chesapeake Bay; the cost of treating the County's iron-rich aquifer-fed water supply; and its small ratepayer base which has to absorb these costs.

Explanations like these allow ratepayers to understand what they are paying for and the value provided by the utilities. This transparency can also help utilities to

understand the challenges faced by other utilities, to drive and justify consolidation and to seek and share greater efficiencies and innovations.

Data also gives the utilities, the customers, and the policymakers the information they need to determine whether existing laws are addressing the challenges and needs illustrated by the data. Data lays bare problems which, once illustrated, are much harder to ignore. This increases the impetus to bring about responsive change. Because data exposes the problems, it will be expected that policy changes address and respond directly to those actual problems. Therefore, data will bring about change, change that brings about real results.

FINAL CONCLUSIONS

When we set out to determine the extent of the affordability crisis in Maryland, we wanted to approach this from the position of a ratepayer and a citizen: using publicly available information, we tried to determine what the rules were for every municipality. We called municipal utilities, seeking information on shut-offs and liens, called them multiple times to try to get the information. In the end, we realized just how difficult it is for ratepayers to know what the future holds when they cannot pay a bill. The information is not present, and the consequences of failure to pay are not clear.

As this report was being finalized, a large swath of the population in Maryland was faced with this exact problem. The federal government shutdown in Washington put a number of federal employees in an uncertain and precarious position: unable to pay their bills. In true Washington fashion, businesses and governments all pledged their help in uncertain times, posting notices that those affected by the shutdown may be able to ask for extensions or for assistance in paying their bills. This groundswell of support has been a marvel to watch, and a true reflection of the community's desire to protect those who are unable to control against these uncertain times.

But what about so many others who face similar uncertainty every month, those with seasonal or temporary employment, those who work paycheck-to-paycheck for the rest of the year? These are citizens who are faced with the uncertainty about whether they can pay their bills on a day-to-day basis. Their stories go untold because there is little to no data on their situation. For many of these people in Maryland, there is no safety net or rate assistance program, there is no clear message posted on a website, there is no respite from the fear that the water could be shut off, with all of the penalties and consequences that might cause. These people deal with the same uncertainty day-after-day, and their plight goes largely unanswered.

Utilities and society both benefit from LIRA programs that assist the poorest and most vulnerable. Utilities benefit from increased ratepayer bases, increased payments, reduced administrative costs associated with shutoffs, and a greater capacity to serve their citizens. Society benefits from greater access to water, which leads to maintenance of health and hygiene levels that are appropriate, and allows vulnerable citizens to be freer from the worry of how they are going to find or pay for water.

Low-income rate assistance programs can also provide a fundamental re-valuation of water in many lives. LIRA programs are not providing free water, except in the most dire of circumstances. Indeed, part of a LIRA program is ensuring that water is always viewed as a resource that has value, that requires maintenance and infrastructure for the taps to stay on. Shutoffs that punish nonpayment alone can breed fear and resentment, instead of understanding and value. By providing the money to pay for water, LIRA programs highlight how important water and sanitation are to life, and how critical these services are to all citizens. This

increased valuation of water and sewer services in our communities can lead to a better and deeper understanding of the critical nature of these services.

LIRA programs also provide opportunities for municipalities to undertake much-needed efficiency improvements in households. In Detroit, a pilot program installed low-flow toilets in houses that required financial assistance. By lowering the load on the system, Detroit saved itself money on operation, maintenance, and repair, making the investment in these households more beneficial to the utility than the cost of the toilet. Other systems have included credit counseling as part of LIRA programs, using the provision of bill assistance as an opening to begin a discussion about financial management and security. These types of programs are not traditional LIRA programs, but they can have as profound an effect on people's lives as shorter-term assistance. Shutoffs and LIRA programs can help to identify and to provide an impetus to address these problems, making their value to utilities and to citizens that much greater.

Recent legislative efforts have been encouraging, as they have increased the momentum towards LIRA programs. U.S. Senate Bill S.3564, in addition to mandating large-scale data collection by the Environmental Protection Agency on LIRA programs, also creates and funds a pilot federal low-income rate assistance program for water.

Overall, what we need is to start a discussion. This report lays out the way that law can exacerbate inequality and lead to an accessibility trap when it comes to water. While some municipalities may choose not to enforce the law as written, the fact that their power is broad while the options for assistance are so limited highlights an imbalance in the system. While the status quo in most municipalities may be an equilibrium between enforcement and forgiveness, this balance can be shaken by unforeseen disasters like floods or droughts, unplanned maintenance, rising human and infrastructure capital costs, and many other factors. We must be prepared for what might come, and we must have these discussions before these costs arise and the bill comes due.

Utilities determine if people get water. This power, rightfully exercised when customers do not pay, can have a profound effect on families, on children and on futures. Water and sewer access is key to social equity and they should not be shut off arbitrarily. Basing a shut off on a family's ability to pay is arbitrary.

NEXT STEPS

Reaching an equitable future is the collective task of every stakeholder.

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Dialogue. Foster national- and state-level discussions with utilities, customers, organizations, and legislators about access to water and the challenges, success stories, and opportunities in achieving equity in access.

Data. Encourage the surveying of states, counties, and municipalities to understand the scope of the accessibility trap to allow for responsive solutions to be developed.

Action. Develop legal solutions that create an enabling environment for equitable and reliable access to water and financial security for our water infrastructure.

NOTES

1. American Society of Civil Engineers, 2017 Infrastructure Report Card, available at <https://www.infrastructurereportcard.org/americas-grades/>. See also American Water Works Association, *Buried No Longer: Confronting America's Water Infrastructure Challenge* (2012); U.S. Environmental Protection Agency, EPA 816-K-17-002, *Drinking Water Infrastructure Needs Survey and Assessment: Sixth Report to Congress* (2018), pg. 9 (stating that the 6th Drinking Water Infrastructure Needs Survey and Assessment revealed that \$472.6 billion is needed to maintain and improve the nation's drinking water infrastructure over the next 20 years).
2. American Society of Civil Engineers, *Failure to Act, Closing the Infrastructure Investment Gap for America's Economic Future* (2016), pg. 16
3. *Id.*
4. Gov't Accountability Office, GAO-16-785, *Water Infrastructure: Information on Selected Midsize and Large Cities with Declining Populations* (2016), pg. 2.
5. National Association of Clean Water Agencies, *Cost of Clean Water Services Index* (2016).
6. U.S. Congressional Budget Office, *Public Spending on Transportation and Water Infrastructure* (2015).
7. National Association of Clean Water Agencies, *Cost of Clean Water Services Index* (2016), as quoted in *Developing a New Framework for Community Affordability of Clean Water Services* by National Academy of Public Administration and EPA (2017).
8. National Academy of Public Administration and EPA,
9. California Proposition 218 contains language that prohibits water utilities from charging more than the cost of providing the service through their rates. Michigan, on the other hand, through the *Bolt v. Lansing* case, placed limits on the ability of utilities to add in rates that addressed increases in costs--or sought to manage those costs--from stormwater or other infrastructure stressors. As the Michigan Supreme Court found, this would require voter approval. A similar fee exists in Maryland, where the nine most populous counties and Baltimore City are required to levy a "stormwater fee" to help address costs from impermeable surfaces and the increase in polluted run-off that they cause. HB 987 (2012) provided the legal jurisdiction for each of these counties and Baltimore to set and collect these taxes.
10. EPA, *Information About Public Water Systems*, (8 March 2017), accessed at <https://www.epa.gov/dwreginfo/information-about-public-water-systems>
11. Baltimore City is an Independent City and is therefore neither a county nor a municipality. Based on the authorities held and responsibilities executed by the City, Baltimore City has a governance structure more similar to a charter county. Also, under Article XI-A of the Maryland Constitution, Baltimore City was granted authority to adopt a charter, the same charter under which charter home rule counties operate. For purposes of this report, we treated Baltimore City as a municipality, hence why there are a total of 157 municipalities.
12. "Legislative Drafting Manual 2019," available at <http://dls.maryland.gov/pubs/prod/NoPblTabPDF/LegislativeDraftingManual.pdf>. See also "Maryland at a Glance," available at <http://msa.maryland.gov/msa/mdmanual/01glance/html/govern.html>.
13. Md. Const. art. VII, §§ 1-2.

14. Md. LOCAL GOVERNMENT Code Ann. §§ 9-101-9-113 and §§ 9-401-9406.
15. U.S. Census, “Maryland,” available at <http://www2.census.gov/govs/cog/gc0212md.pdf>. See also U.S. Census, “Local Governments by Type and State: 2012,” available at http://www2.census.gov/govs/cog/2012/formatted_prelim_counts_23jul2012_2.pdf.
16. Md. Const. art. XI-A, § 1 et al.
17. Md. Const. art. XI-A, § 2.
18. Md. Const. art. XI-A, § 3.
19. Md. LOCAL GOVERNMENT Code Ann. §§ 10-201-10-330.
20. Md. LOCAL GOVERNMENT Code Ann. § 10-102 (granting express powers to code and charter counties).
21. Md. Const. art. XI-A, § 4.
22. Id. The counties and City of Baltimore are designated as “geographical subdivisions.” Id.
23. Md. LOCAL GOVERNMENT Code Ann. §§ 10-201-10-206.
24. Md. Const. art. XI-F, § 4 (stating that the General Assembly can enact laws that affect all code counties or one or more class of code counties, but not just one code county). Md. Const. art. XI-A, § 5 (authorizing the General Assembly to classify code counties into not more than four classes according to population). The four classes are laid out in Md. LOCAL GOVERNMENT Code Ann. § 9-302.
25. The Constitution defines public law as “a law applicable to the incorporation, organization, or government of a code county and contained in the county’s code of public local laws” but that “does not include (i) the charters of municipal corporations under Article 11E of this Constitution, (ii) the laws or charters of counties under Article 11A of this Constitution, (iii) laws, whether or not Statewide in application, in the code of public general laws, (iv) laws which apply to more than one county, and (v) ordinances and resolutions of the county government enacted under public local laws.” Md. Const. art. XI-F, § 1.
26. Md. LOCAL GOVERNMENT Code Ann. § 9-403.
27. Md. LOCAL GOVERNMENT Code Ann. § 12-101 et al and Md. LOCAL GOVERNMENT Code Ann. § 13-101 et al.
28. “Legislative Handbook Series, Volume VI: Maryland Local Government,” 2010, available at <http://mgaleg.maryland.gov/pubs/legislegal/2010-local-government-handbook-vol-006.pdf>.
29. There are no incorporated municipalities located within Baltimore County.
30. “Frederick County Council,” available at <https://frederickcountymd.gov/591/County-Council>.
31. Md. Const. art. XI-E, § 3.
32. Md. LOCAL GOVERNMENT Code Ann. §§ 5-101 - 5-106. Municipalities may adopt ordinances that: “(1) assure the good government of the municipality; (2) protect and preserve the municipality’s rights, property, and privileges; (3) preserve peace and good order; (4) secure persons and property from danger and destruction; and (5) protect the health, comfort, and convenience of the residents of the municipality.” Md. LOCAL GOVERNMENT Code Ann. § 5-202.
33. Md. LOCAL GOVERNMENT Code Ann. § 5-203.
34. Municipal Incorporation Handbook, available at <http://www.mdmunicipal.org/DocumentCenter/View/1677/MunicipalIncorporationHandbook2014ForWebsite?bidId=>.
35. “2017 MDE Organizational Guide,” available at [https://mde.maryland.gov/Documents/www.mde.state.md.us/assets/document/mdeguide\(1\).pdf](https://mde.maryland.gov/Documents/www.mde.state.md.us/assets/document/mdeguide(1).pdf).
36. Md. ENVIRONMENT Code Ann. § 9-503(a).
37. Id at (b).
38. Md. ENVIRONMENT Code Ann. § 9-723. No case has further interpreted the meaning of “reasonable rates” or “reasonable charges”.
39. Drinking Water and Wastewater Customer Assistance Programs (April 2016) page 27 available at https://www.epa.gov/sites/production/files/2016-04/documents/dw-ww_utilities_cap_combined_508.pdf.
40. Washington Suburban Sanitary Commission - Customer Assistance Program MC/PG 107-15 (H.B. 1234), available at <http://mgaleg.maryland.gov/webmga/frmmain.aspx?pid=billpage&tab=subject3&id=hb1234&stab=01&ys=2015rs>.
41. 2018 Md. HB 923 amending Md. ENVIRONMENT Code Ann. § 9-202. The revised code went into effect 1 October 2018. Additional information about General Assembly H.B. 923 can be found at <http://mgaleg.maryland.gov/webmga/frmMain.aspx?pid=billpage&stab=01&id=HB0923&tab=subject3&ys=2018RS>.
42. Id.
43. Id at (b)(1)-(2).
44. U.S. Census Bureau, Statistical Abstract of the United States, “Table 955. Public Drinking Water Systems—Number and Population Served by State: 2009,” (2011), accessed at <ftp://ftp.census.gov/library/publications/2010/compendia/statab/130ed/tables/11s0955.pdf>.
45. Id.
46. Maryland Public Service Commission, General Information, available at <https://www.psc.state.md.us/general-information/>.
47. Md. PUBLIC UTILITIES Code Ann. § 2-112-2113.
48. Maryland Public Service Commission, The Water Division, available at <https://www.psc.state.md.us/water/>.
49. Md. PUBLIC UTILITIES Code Ann. § 4-201.

50. Md. PUBLIC UTILITIES Code Ann. § 4-101.
51. Md. ENVIRONMENT Code Ann. § 9-906. A political subdivision is defined as “any county, municipal corporation under Article XI-E of the Maryland Constitution, sanitary district, or other political subdivision of this State.” Md. ENVIRONMENT Code Ann. § 9-901(j).
52. Md. ENVIRONMENT Code Ann. § 9-901(b-c).
53. Md. ENVIRONMENT Code Ann. § 9-907.
54. Md. ENVIRONMENT Code Ann. § 9-917.
55. Md. ENVIRONMENT Code Ann. § 9-949.
56. Md. ENVIRONMENT Code Ann. § 9-951(a-b).
57. Md. ENVIRONMENT Code Ann. § 9-611. Included in the ordinance or resolution are articles of incorporation that identify the purposes for which the District was created and the geographical area of its jurisdiction if it is smaller than the geographical area of the incorporating counties. Md. ENVIRONMENT Code Ann. § 9-612.
58. Md. ENVIRONMENT Code Ann. § 9-603, 9-621. In Garrett County the County Commissioners govern the District and the County Commissioners in Allegany County “may exercise jurisdiction over the county sanitary commission” created under Part III. Md. ENVIRONMENT Code Ann. § 9-629.
59. Md. ENVIRONMENT Code Ann. § 9-602.
60. Md. ENVIRONMENT Code Ann. § 9-601(j), 9-607.
61. Md. LOCAL GOVERNMENT Code Ann. § 11-401(c).
62. Md. LOCAL GOVERNMENT Code Ann. § 11-401(d).
63. Md. LOCAL GOVERNMENT Code Ann. § 11-401(e)(1).
64. Md. LOCAL GOVERNMENT Code Ann. § 11-401(f).
65. Beyond the Pipes, available at http://100.wsscwater.com/#innovation_official.
66. Id. See also Md. PUBLIC UTILITIES Code Ann. § 17-501. The Commission has the authority to construct and maintain a “water system to the Howard County boundary line to supply water to the residents of Howard County.” Md. PUBLIC UTILITIES Code Ann. § 26-201. The Commission is also prohibited from providing stormwater services in Montgomery County. Md. PUBLIC UTILITIES Code Ann. § 23-101.
67. Md. PUBLIC UTILITIES Code Ann. § 25-502.
68. Md. PUBLIC UTILITIES Code Ann. § 25-101(b).
69. Md. LOCAL GOVERNMENT Code Ann. § 4-104. Md. LOCAL GOVERNMENT Code Ann. § 5-201 (Title 5 of Division II of the Local Government Act forbids municipalities from adopting an ordinance that is inconsistent with or conflicts with any rule or regulation adopted by the WSSC).
70. Baltimore County Water Supply and Sewerage Plan: 2017 Triennial Review, available at <https://www.baltimorecountymd.gov/Agencies/publicworks/masterplan.html>. Baltimore County Charter, Sec. 307.
71. County Attorney, Baltimore County, email to Hannah Paton 10 October 2018.
72. County Attorney, Baltimore County, email to Hannah Paton 10 October 2018. See also Baltimore County Charter, Sec. 527.
73. Baltimore County Code, Sec. 20-1-113.
74. Baltimore County Code, Sec. 20-1-114(b).
75. Baltimore County Code, Sec. 20-1-116.
76. Baltimore County Code, Sec. 20-1-115.
77. Baltimore County Code, Sec. 20-3-205.
78. Metropolitan District Charge, Understanding the Metro Service Charges, available at <https://www.baltimorecountymd.gov/Agencies/budfin/taxpayerservices/metrodistrictcharge.html>.
79. Percent Black/African American Ranking, 2000 available at http://www.censusscope.org/us/rank_race_blackafricanamerican.html.
80. Henry J. Kaiser Family Foundation, Distribution of the Total Population by Federal Poverty Level, 2017, accessed at <https://www.kff.org/other/state-indicator/distribution-by-fpl/?currentTimeframe=0&sortModel=%7B%22collId%22:%22Under%20100%25%22,%22sort%22:%22desc%22%7D>
81. All numbers have been taken from information provided on county website or from the County Water and Sewerage plans.
82. Utilities Division, available at <https://alleganygov.org/254/Utilities-Division>
83. Utilities Division, available at <https://www.alleganygov.org/254/Utilities-Division>. Based on the Allegany County Water and Sewerage Plan, the county provides 90% of residents with public water and 87% of residents with public sewer services. Allegany County Water and Sewerage Plan, pp. 49, 78, available at <http://gov.allconet.org/DocumentCenter/View/3204/Water--Sewer-Plan-2016-2018-Amendment-Adopted-April-26-2018-PDF>.
84. Bureau of Utility Operations, available at: <https://www.aacounty.org/departments/public-works/utilities/index.html>.
85. Charter, Sec. 538; see also Code of Ordinance, 13-1-102 and County Code, Sec. 13-5-103.
86. Bureau of Utility Operations, available at: <https://www.aacounty.org/departments/public-works/utilities/index.html>.
87. Id.
88. Department of Public Works, available at: <https://www.baltimorecountymd.gov/Agencies/publicworks/index.html>; see also Charter, § 20-1-113.

89. Baltimore County Charter, §§ 20-1-104 and 20-1-105; see also <https://www.baltimorecountymd.gov/Agencies/publicworks/index.html>; see also Consent Decree available at http://resources.baltimorecountymd.gov/Documents/Public_Works/consentdecreefinal.pdf.
90. Baltimore County Charter § 20-1-115.
91. Water and Sewer, available at <http://www.co.cal.md.us/index.aspx?NID=132>.
92. Calvert County Public Code Sec. 16-201.
93. Calvert County Annual Drinking Water Report (2017). Available at: <http://www.co.cal.md.us/DocumentCenter/View/15735>; <http://www.co.cal.md.us/index.aspx?NID=1398>.
94. Caroline County Code, Sec. 173-4; “With the exception of the Jonestown Water System, the County does not own or operate public utilities. If you live in a town and have a question about your water and sewer bill, please contact your town office.” see <https://www.carolinemd.org/236/Utilities>.
95. Caroline County Code, Sec. 173-1.
96. Bureau of Utilities, available at <https://ccgovernment.carr.org/ccg/util/>.
97. Carroll County Code Sec. 3-901, Sec. 14-102-14-103.
98. Wastewater Division, Available at <http://www.ccgov.org/government/public-works/public-works-divisions/wastewater-division>.
99. Utility Billing, available at: <http://www.ccgov.org/government/finance/utility-billing>.
100. Cecil County Code, Chapter 365-1.
101. Water and Sewer Operations and Maintenance, available at: <https://www.charlescountymd.gov/pw/wsoperations/watersewer-operations-and-maintenance>.
102. Id.
103. MD Environment Code Ann. Title 9, Subtitle 6, Sections 9-601 to 9-699.
104. MD Environment Code Ann. Title 9, Subtitle 6, Sec. 9-622.
105. Utilities and Solid Waste Management, available at <https://frederickcountymd.gov/106/Utilities-Waste-Management>.
106. Water and Sewer Regulations, available at <https://frederickcountymd.gov/DocumentCenter/View/279941/Water-and-Sewer-Rules-and-Regulations-2015-effective-5-1-15?bidId=>.
107. 2017 Water Quality Report, available at <https://www.frederickcountymd.gov/DocumentCenter/View/304002/Water-Treatment-Plants-and-Their-Distribution-Systems2017>.
108. Public Utilities, available at <https://www.garrettcountry.org/public-utilities>.
109. Public Utilities, available at <https://www.garrettcountry.org/public-utilities>.
110. Division of Water and Sewer, available at <http://www.harfordcountymd.gov/782/Water-Sewer>.
111. Harford County Code, Chap. 256-3.
112. See <http://www.harfordcountymd.gov/782/Water-Sewer>.
113. Bureau of Utilities, available at <https://www.howardcountymd.gov/Departments/Public-Works/Bureau-Of-Utilities>.
114. Code of Ordinances, Title 18 (Public Works), Subtitle 1, Sec. 18.100.
115. See <https://www.howardcountymd.gov/Departments/Public-Works/Bureau-Of-Utilities>.
116. Kent County Code, Sec. 16-14 [Amended 5-3-2011 by Bill No. 1-2011].
117. Kent County Code, Code, Sec. 16-17; see also Water and Wastewater Services, available at <https://www.kentcounty.com/water>.
118. Montgomery County retains authority for overseeing individual water and septic, in consultation with the WSSC. Montgomery County Code Sec. 27A-3. The WSSC service area does not include parts of Rockville. WSSC Water/Sewer Service Area available at <https://www.wsscwater.com/about-us/service-areas.html>.
119. WSSC Overview available at <https://www.wsscwater.com/about-us/overview.html>.
120. The WSSC service area does not include parts of Bowie. Md. Id.
121. Id.
122. Queen Anne’s County Code of Ordinances, Sec. 24-1.
123. Queen Anne’s County Code of Ordinances, Sec. 24-5.
124. Queen Anne’s County Code of Ordinances, Sec. 24-4; see also Sanitary District, available at <https://www.qac.org/513/Sanitary-District>.
125. See <https://www.qac.org/516/Rate-Schedules>.
126. Code of Local Public laws, Sec. 113-23.
127. METCOM website, available at <https://www.metcom.org/board-of-commissioners>.
128. Md ENVIRONMENT Code Ann. § 9-622(a)(1); see also Md ENVIRONMENT Code Ann. Title 9, Subtitle 6.
129. Water reconnection Charge Ordinance, available at <http://www.somersetmd.us/Documents/codes/O1088WaterReconnection.pdf>.
130. Talbot County Charter, Sec. 405; see also Code, Sec. 138; see also Talbot County Code, Sec. 148-15.
131. Talbot County Code, Sec. 148-15.
132. Talbot County Department of Public Works Advisory Board Meeting Agenda December 5, 2018, available at <http://www.talbotcountymd.gov/uploads/File/publicworks/Public%20Works%20Advisory%20Board%20Meeting%20Agenda%20-%20December%205%202018.pdf>.

133. Division of Environmental Management, available at: https://www2.washco-md.net/water_sewer/index.shtm.
134. Code of Local Public Laws of Washington County, Sec. 6-201, 6-202.
135. Water and Sewer, available at <https://www.wicomicocounty.org/558/Water-Sewer>. See also Wicomico County Water and Sewerage Plan, available at <https://www.wicomicocounty.org/DocumentCenter/View/4156/Comprehensive-Water-and-Sewer-Plan>. The Plan describes the incorporated towns within the County responsible for providing water and sewer services.
136. Worcester County Code, Sec. PW5-201[Added 10-5-1993 by Bill No. 93-19; amended 2-8-1994 by Bill No. 94-3; 4-20-1999 by Bill No. 99-2].
137. Worcester County Code, Sec. PW5-202.
138. Worcester County Code, Sec. PW205.
139. For this report we did not examine the impact of law as applied and implemented. As a complementary study, we expect to interview Maryland utilities and analyze how the law is implemented and applied by utilities and the county or municipal governments responsible for writing the law.
140. Henry J. Kaiser Family Foundation, Distribution of the Total Population by Federal Poverty Level, 2017, accessed at <https://www.kff.org/other/state-indicator/distribution-by-fpl/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Under%20100%25%22,%22sort%22:%22desc%22%7D>.
141. Annapolis, Baltimore, Brunswick, Cambridge, and Middletown.
142. Boonsboro.
143. Middletown, Northeast, and Ridgely.
144. St. Michaels requires that a notice be sent after two consecutive billing quarters, so shut off may occur even longer after the six month period indicated in the law.
145. Perryville sends a notice thirty days after the billing date indicating that the customer must pay the full amount or service will be terminated twenty days later.
146. Oxford, MD.
147. In this report we do not explore the rules governing foreclosures sales, including whether notice of foreclosure is required, whether only an unpaid water bill can be the basis of a foreclosure proceeding, whether the lien can be sold to private entities, and any rules governing the rate of interest charged, penalties, and/or legal fees on the lien.
148. One example of language allowing for unpaid water bills to become a lien comes from the municipal code for Trappe, Maryland: “Any unpaid water and sewer bill including finance charges and any service charge for turning the water on or off shall become a lien upon the real property which is serviced, and may be collected in the same manner as taxes are collected.” Trappe Municipal Code, Code,§14.10(G).
149. Examples of the language allowing for water shutoffs for previous owners’ delinquent bills are included here. “Said water may be so turned off even if the then owner of the premises is not the same owner that incurred the water tax or committed the violation of this article or of the aforesaid rules and regulations or allowed such wastage of water.” Ocean City Municipal Code, §94-36. “Where a property is sold, the water and sewer charges due on the property after settlement will be placed on the first bill for payment by the new property owner and be subject to and deemed a current charge for the new owner.” Rockville Municipal Code, §24-51(a). “[S]ervice shall not be resumed until all delinquent charges and the cost of disconnection and reconnection have been paid to the city, regardless of any change of occupancy.” Salisbury Municipal Code, §13.04.020.
150. Id.
151. Berlin municipal code states that “[a]ll unpaid sewer charges shall become a lien and shall be assessed as a tax on the property to which the sewer service has been supplied and for which the service was incurred. The town shall not approve the transfer or conveyance of any property or premises if the records of the municipality indicate that a sewer charge remains unpaid” and that “[a]ny water charges (which shall specifically include but not be limited to water meters, labor furnished, material furnished, service calls, minimum billings, hydrant permits and any and all other charges in any manner connected with water service) so incurred shall be a lien and shall be assessed as a tax on the subject premises. If the bill or statement for same is not paid within 30 days of the date said bill or statement is deposited in the post office at Berlin, Maryland...the town shall not approve the transfer or conveyance of any property or premises if the tax records of the municipality indicate that such a water tax remains unpaid.” Berlin Municipal Code, §30-113(b) and §30-220. Elkton’s Town Charter states “...no property shall be transferred on the town assessment books and no deed shall be stamped unless and until all taxes, paving assessments, sewer and water connection charges, water and sewer current billing and prepaid billing and any and all other liens against the property to be conveyed in the deed and due the town have been paid to the Finance Department.” Elkton Town Charter, Article VIII, §C8-1(B).
152. Information provided by the municipal website, available at: <http://eastonutilities.com/wp-content/uploads/documents/Water-Tariff.pdf>.
153. Provided by the Water and Wastewater Tariffs for the Town of Easton, available at: <http://eastonutilities.com/wp-content/uploads/documents/Wastewater-Tariff.pdf> and <http://eastonutilities.com/wp-content/uploads/documents/Water-Tariff.pdf>.
154. Easton Municipal Charter, Article VI, §17(b).
155. Trappe Municipal Code, §14.10(E).
156. Trappe Municipal Code, §14.10(E).
157. Trappe Municipal Code, §14.10(E).

158. Trappe Municipal Code, §14.4.
159. Trappe Municipal Charter, §718; See also Trappe Municipal Code, §14.10(G).
160. Trappe Municipal Code, §14.18.
161. Middletown Municipal Code, §13.12.040(E).
162. Middletown Municipal Code, §13.12.040(D).
163. Middletown Municipal Code, §13.12.040 (F)(2).
164. Middletown Municipal Code, §13.12.040(F)(2) (emphasis added).
165. Middletown Municipal Code, §13.12.040(F)(1).
166. Middletown Municipal Code, §13.12.040(M).
167. There is a significant question here of whether “grace periods” increase the ability of low income households to pay the bill, especially if late fees and other charges are still being assessed during this time.
168. Woodsboro Municipal Code, §50-50.
169. Woodsboro Municipal Code, §50-49.
170. Woodsboro Municipal Code, §50-50 (emphasis added).
171. Oxford Municipal Code, §17.9(E); Queenstown Municipal Code, §14.51(D); Trappe Municipal Code, §14.10(E).
172. Libby Perl, Congressional Research Service, LIHEAP: Program and Funding, 22 June 2018, accessed at <https://fas.org/sgp/crs/misc/RL31865.pdf>; pg. 1.
173. Id.
174. Id. at pp. 10-12.
175. According to 42 U.S.C §8622(1): “The term “emergency” means...(A) a natural disaster; (B) a significant home energy supply shortage or disruption; (C) a significant increase in the cost of home energy, as determined by the Secretary; (D) a significant increase in home energy disconnections reported by a utility, a State regulatory agency, or another agency with necessary data; (E) a significant increase in participation in a public benefit program such as the supplemental nutrition assistance program carried out under the Food and Nutrition Act of 2008 (7 U.S.C. 2011 et seq.), the national program to provide supplemental security income carried out under title XVI of the Social Security Act (42 U.S.C. 1381 et seq.), or the State temporary assistance for needy families program carried out under part A of title IV of the Social Security Act (42 U.S.C. 601 et seq.), as determined by the head of the appropriate Federal agency; (F) a significant increase in unemployment, layoffs, or the number of households with an individual applying for unemployment benefits, as determined by the Secretary of Labor; or (G) an event meeting such criteria as the Secretary, in the discretion of the Secretary, may determine to be appropriate.”
176. LIHEAP legislation contains a list of 16 “assurances.” Examples of these assurances that grantees must address in their application include the type of energy assistance grantees will provide, who will be served, and how funds will be administered. (Libby Perl, Congressional Research Service, LIHEAP: Program and Funding, 22 June 2018, accessed at <https://fas.org/sgp/crs/misc/RL31865.pdf>; pg. 1); Assurances are found at 42 U.S.C §8624.
177. Libby Perl, Congressional Research Service, LIHEAP: Program and Funding, 22 June 2018, accessed at <https://fas.org/sgp/crs/misc/RL31865.pdf>; pg. 1.
178. 42 U.S.C §8624(b)(1).
179. Libby Perl, Congressional Research Service, LIHEAP: Program and Funding, 22 June 2018, accessed at <https://fas.org/sgp/crs/misc/RL31865.pdf>.
180. According to 42 U.S.C §8622(2) the term “Energy crisis” means “weather-related and supply shortage emergencies and other household energy related emergencies.”
181. 42 U.S.C §8624(b)(2).
182. 42 U.S.C. §8624(b)(3).
183. 42 U.S.C. §8624(c)
184. Libby Perl, Congressional Research Service, LIHEAP: Program and Funding, 22 June 2018, accessed at <https://fas.org/sgp/crs/misc/RL31865.pdf>; pg. 5.
185. COMAR 20.31.05.02(B0(3)).
186. Maryland Department of Human Services, Office of Home Energy Programs: Energy Assistance, 2018, accessed at <http://dhr.maryland.gov/office-of-home-energy-programs/>.
187. Id.
188. Id.
189. William Donald Schaefer Tower, Public Service Commission of Maryland, Utility Service Protection Program: Annual Report: Winter 2016-2017, accessed at <https://www.psc.state.md.us/wp-content/uploads/USPP-Annual-Report-for-Winter-2016-2017.pdf>.
190. COMAR 20.31.05.04.
191. COMAR 20.31.05.03.
192. COMAR 20.31.05.02(B)(2).
193. COMAR 20.31.01.04(A).
194. According to COMAR 20.31.01.06(B), at minimum, the service termination policy must include the following information: “(1)The permissible grounds for termination of service; (2) A statement of the procedures for terminating and reconnecting a

customer's service; (3) A statement that the customer may designate a third party to receive termination notices; (4) A statement that the customer may notify the utility if the customer or an occupant of the customer's residence is elderly, is handicapped, is seriously ill, relies upon life-support equipment, or has any existing condition for which a termination of service would be a threat to life, health, or safety. (5) A statement of the customer's rights and remedies in termination proceedings, which shall include the information required by Regulation .06 Text of Notices of Termination under COMAR 20.31.02 Terminations; (6) A statement that alternate payment plans are offered by the utility; and (7) A statement describing the Utility Service Protection Program under COMAR 20.31.05."

195. COMAR 20.31.01.06(A).

196. PUA § 7-307, Annotated Code of Maryland calls for the establishment of the USPP, stating that, "[the] [c]ommission shall adopt regulations concerning the prohibition against or limitation of authority of a public service company to terminate service for gas or electricity to a low income residential customer during the heating season for nonpayment."

197. The Maryland Public Service Commission governs all public utilities in the State of Maryland that engages in or operates a utility business in the State and over motor carrier companies as provided in Title 9 of this article.

198. COMAR 20.31.05.03 (A).

199. COMAR 20.31.05.07.

200. COMAR 20.31.05.09.

201. COMAR 20.31.05.01(C).

202. 42 U.S.C. §8624(b)(4).

203. Libby Perl, Congressional Research Service, LIHEAP: Program and Funding, 22 June 2018, accessed at <https://fas.org/sgp/crs/misc/RL31865.pdf>; pg. 5

204. Specifically, the utility must provide the Department of Housing and Community Development Weatherization Program with the names and addresses of customers with incomes at 50 percent of poverty or below whose service is reconnected and the names, addresses, and winter energy consumption, November through March, of those Utility Service Protection Program participants whose usage is 135 percent or more of the system average for residential consumption of that fuel. COMAR 20.31.05.10.

205. COMAR 20.31.05.10.

206. COMAR 20.31.05.09.

207. PUA § 7-307(c).

208. All figures/language taken from: William Donald Schaefer Tower, Public Service Commission of Maryland, Utility Service Protection Program: Annual Report: Winter 2016-2017, available at <https://www.psc.state.md.us/wp-content/uploads/USPP-Annual-Report-for-Winter-2016-2017.pdf>, pg. 5.

209. 42 U.S.C. §8624(b)(8).

210. PUA § 2-113(1)(ii).

211. Slate, You Are Paying 300 Times More for Bottled Water than Tap Water (12 July 2013) available at <http://slate.com/business/2013/07/cost-of-bottled-water-vs-tap-water-the-difference-will-shock-you.html>.

212. The "ready to serve" charge is levied as a basic charge for having access to water service when needed, and is charged based on the size of the meter regardless of whether the customer uses water.

213. Charlestown stopped offering payment plans in 2013. Snow Hill prohibits the subsidization of water services.

214. Special assessments are attached to properties, and therefore, are assessed against homeowners. However, homeowners could pass this burden onto renters by increasing rental payments to cover the monthly amount of the special assessment.

215. Church Hill waives the connection fee if an individual connects within 120 days. Millington waives the connection fee if a connection is made within twelve months. Poolesville and Union Bridge will waive the connection requirement if an individual well and septic system is in good condition and it is economically infeasible to make the connection. Finally, the town of Vienna will pay for the water connection, but the property owner is responsible for paying for the sewer connection.

216. This is the case for Hampstead for a water connection with a ¾ inch meter. Hampstead Municipal Code, §132-6(A).

217. This is the case for Aberdeen. Aberdeen Municipal Code, §A550-1 (5)(a).

218. The two counties are Anne Arundel and Calvert Counties. Calvert County's water connection fee is \$3,000 and its sewer connection fee is \$5,400. Anne Arundel County has a current capital connection fee of \$7,027, which will rise to \$7,202 on July 1, 2019.

219. Leonardtown assesses a fine of \$1,000 for a violation of the connection provision; Chesapeake Beach assigns a fee of \$5 per day each day after the 180-day period that a property owner does not connect to the public sewer system. Leonardtown Charter, Article 10, Sec. 1005; *see also* Leonardtown Municipal Code, Sec. 150-4(E), Chesapeake Beach Town Charter, Sec. 217-5.

220. The seven municipalities outside of the WSSC service area are: Boonsboro, Emmitsburg, Federalsburg, Hampstead, Millington, Myersville, and Perryville.

221. In essence, if a customer experiences a burst pipe or other plumbing emergency (leaky faucets and toilets excepted) they still pay for the water that is wasted through this leak, but receive a credit for the sewer systems that takes it away.

222. These 7 municipalities are: Berlin, Cumberland, Easton, Leonardtown, Manchester, Taneytown, Union Bridge.

223. In many states the use of public funds on private property is prohibited. Therefore, LIRA programs where public funds would be provided to make infrastructure repairs on private property would be prohibited. However, some states, such as Pennsylvania,

have recently passed laws to correct that prohibition in light of the crisis in Flint, Michigan and the need to replace lead service lines (LSLs) that are located on private property. In October 2017, the Pennsylvania General Assembly adopted HB-674. Section 1719-E allows public authorities to “use public funds and utilize authority employees for the replacement or remediation of private water laterals and private sewer laterals if the authority determines that the replacement or remediation will benefit the public health, public water supply system or public sewer system.” HB-674 available at <https://www.legis.state.pa.us/cfdocs/billInfo/BillInfo.cfm?s-year=2017&sind=0&body=H&type=B&bn=674>.

224. Baltimore City Department of Public Works, Low Income Water Bill Assistance Program, 2018, available at <https://publicworks.baltimorecity.gov/low-income-water-bill-assistance-program>. Baltimore City Department of Public Works defines this income threshold in that income cannot exceed \$3,660 monthly or \$43,925 annually for a family of four (Baltimore City Department of Public Works, Low Income Water Bill Assistance Program, 2018, accessed at <https://publicworks.baltimorecity.gov/low-income-water-bill-assistance-program>). Baltimore also offers a variety of other rate assistance program including a program for senior citizens, a program for residents with unique medical conditions, a hardship exemption program which exempts eligible customers from paying the Chesapeake Bay Restoration Fee and Stormwater Remediation Fee. The Chesapeake Bay Restoration Fee is a unique fee established by the State of Maryland to reduce pollution in the Chesapeake Bay and maintain compliance with the Chesapeake Bay’s Total Maximum Daily Load (TMDL). The Stormwater Remediation Fee also serves to protect the Chesapeake Bay by charging customers based on the amount of impervious surface on their land. (Rudolph S. Chow and Catherine Pugh, Baltimore City Department of Public Works, *Stormwater Remediation Fee Regulations*, 2017, available at <https://publicworks.baltimorecity.gov/sites/default/files/Stormwater%20Remediation%20Fee%20Regulations.pdf>).

225. U.S. Census Bureau, 2010 Census: General Housing Statistics, 2010, accessed at <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>.

226. Baltimore City Department of Public Works, Low Income Water Bill Assistance Program, 2018, accessed at <https://publicworks.baltimorecity.gov/low-income-water-bill-assistance-program>.

227. HomeServe Cares, HomeServe Cares for WSSC Customers: Application, 2018, accessed at https://forms.logiforms.com/form-data/user_forms/72488_6567212/349545/page1.html and <https://www.homeserveusa.com/company/corporate-social-responsibility/homeservecares-wssc>.

228. Id.

229. Id.

230. Havre de Grace Municipal Code, Chapter 196, §196-4.

231. Keedysville Code of Ordinances, Chapter 12, §14.

232. Hampstead Municipal Code, Chapter 132, Art. 1, §132-1(A)(1); Leonardtown Municipal Code, §69-2 (A); Town of Rising Sun, Resolution 2016-13, Water and Sewer Rate Table, accessed at http://www.risingsunmd.org/egov/documents/1473121877_29005.pdf.

233. Food and Water Watch “America’s Secret Water Crisis: National Shutoff Survey Reveals Water Affordability Emergency Affecting Millions” (2018). This report focuses on the two largest utilities in each state and shows high levels of shutoffs in some states, in some cases close to 20% of residential accounts.

234. The highpoint of the shutoffs was 2015, and the low point in 2017, with extreme volatility in the number of shutoffs per year in the the other years. This data was received from Baltimore City under a FOIA request made by MIT in 2018, and was shared with the CWSC.

